

# **City of Hattiesburg, MS**

*200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401*



## **Meeting Agenda - Final**

**Tuesday, July 3, 2018**

**5:00 PM**

**Council Chambers**

**City Council**

**I. Call to Order****II. Call to Prayer and Pledge of Allegiance****III. Agenda Order****IV. Approval of Minutes**

*for the June 4, 5, 7 and 12, 2018, meetings of the City Council.*

**V. PRESENTATION AGENDA****VI. POLICY AGENDA**

- VI.-1      [2018-570](#)**      Adopt Resolutions on July 3, 2018 condemning such properties as uncleanliness and a menace to the health and safety of the community.

**Attachments:**

[P.H. resolution adoption 7.3.18](#)

[1. 804 E 6th resolution](#)

[2. 1104 Franklin ST resolution](#)

[3. 315 Miller St resolution](#)

[4. 990 Hardy st resolution](#)

[5. 530 Buschman resolution](#)

[6. 1326 Pine st resolution](#)

[7. 210 Rosa Ave resolution](#)

[8. 325 Emerson Dr resolution](#)

[9. 607 Graymont Ave resolution](#)

[11. 107 E. 7th St. resolution](#)

[12. 705 Bouie St resolution](#)

[Executed - Res#2018-82 - 804 E 6th resolution](#)

[Executed - Res#2018-83 - 1104 Franklin St resolution](#)

[Executed - Res#2018-84 - 315 Miller St resolution](#)

[Executed - Res#2018-85 - 990 Hardy St resolution](#)

[Executed - Res#2018-86 - 530 Buschman resolution](#)

[Executed - Res#2018-87 - 1326 Pine St resolution](#)

[Executed - Res#2018-88 - 210 Rosa Ave resolution](#)

[Executed - Res#2018-89 - 325 Emerson Dr resolution](#)

[Executed - Res#2018-90 - 607 Graymont Ave resolution](#)

[Executed - Res#2018-91 - 107 E. 7th St resolution](#)

[Executed - Res#2018-92 - 705 Bouie St resolution](#)



- VI.-2**     [2018-561](#)     Adopt a Resolution changing the time of the August 7, 2018, City Council meeting to 4p.m to allow city officials to participate in the City of Hattiesburg's National Night Out Against Crime activities.

**Attachments:**     [Time Change Resolution-8-7-2018](#)  
                              [Executed - Res#2018-93 - Time Change Resolution-8-7-2018](#)

- VI.-3**     [2018-557](#)     Adopt an order to approve the sale of a personal service weapon to retiring Assistant Chief of Police Eugene Frank Misenhelter pursuant to Mississippi Code Annotated 45-9-131

**Attachments:**     [Purchase of Service Weapon - Asst. Chief Misenhelter](#)

- VI.-4**     [2018-576](#)     Authorize Mayor to execute in duplicate Contract for Professional Services with 4D Solutions, Inc. to expedite completion of Project Worksheets associated with DR 4101 (2013 Tornado Event).

**Attachments:**     [HATTIESBURG4DPROfSVCV3 6-12-18](#)  
                              [Executed - HATTIESBURG 4D Solutions for Professional Services](#)

- VI.-5**     [2018-563](#)     Authorize Mayor to execute Memorandum of Agreement between the City of Hattiesburg and Pear River Community College to train existing city employees in CDL training to earn a class \*A\* certification in commercial truck driving, at no cost to the city.

**Attachments:**     [MOA-PRCC](#)  
                              [Executed - MOA with COH and PRCC for CDL](#)

- VI.-6**     [2018-566](#)     Approve and authorize Mayor to execute Amendment No.1 to the agreement with Tyler Technologies, Inc. for the upgrade of EnerGov software used by the Department of Urban Development.

**Attachments:**     [Supplemental Agreement No 1 Energov Software Upgrade Project](#)  
                              [Executed - Supplemental Agreement No 1 Energov Software Upgrade Project](#)

- VI.-7**     [2018-562](#)     Approve an amendment to the Developer Agreement with Breakthrough Community Services, Inc. (found at MB2017-519) to extend the term of the agreement to July 3, 2019; allowing for the completion of a Rental Rehabilitation activity located at 709 Highland Avenue and authorize the Mayor to execute in triplicate for same. {Entitlement HOME}

**Attachments:**     [Letter from Breakthrough Requesting Agreement Extension.pdf](#)  
                              [Breakthrough Agreement Amendment.pdf](#)

- VI.-8**      [2018-577](#)      Rescind Contractor and Owner Agreement and a Housing Rehabilitation Grant Award to Bettye Hill of 413 South 13th Avenue, (File ID: 2018-168, MB2018-29) approved on February 6, 2018. {Entitlement}

Attachments:      [Rescind - Contract and Grant Agreement 06.22.18](#)

- VI.-9**      [2018-582](#)      Adopt a resolution authorizing submittal of FY-2018 "Better Utilizing Investments to Leverage Development" (BUILD) Discretionary Grant Program Application to the U.S. Department of Transportation seeking funds to construct an alternate transportation route to relieve traffic congestion due to railroad delays in the Downtown Area; Application is requesting \$22,000,000 of which 80% or \$17,600,000 is Federal, and 20% or \$4,400,000 is City.

Attachments:      [RES - BUILD Discretionary Grant](#)  
[Executed - Res#2018-94 - BUILD Discretionary Grant](#)

## **VII. ROUTINE AGENDA**

- VII.-1**      [2018-568](#)      Acknowledge receipt of unadvertised bid purchase docket report for period of March 1, 2018, through June 20, 2018 as provided for in Section 31-7-13 (b) of the Mississippi Code of 1972.

Attachments:      [07-03-UAB Docket](#)

- VII.-2**      [2018-559](#)      Acknowledge receipt of unadvertised bids for City Hall 3rd Floor Renovation; Acknowledge the bid of Hub City Construction in the amount of \$49,180.00 as the lowest bid received. (Unadvertised bids for Construction Project)

Attachments:      [07-03-City Hall 3rd Floor Renovation-Hub City Construction \(Two Quote\)](#)

- VII.-3**      [2018-567](#)      Acknowledge bids received June 14, 2018 for the Bobby L. Chain Airport Taxiway Extension Part 2 Project and accept the bid from Warren Paving Inc. in the amount of \$783,331.00 as the lowest and best bid; Authorize Mayor to execute contracts upon preparation.

Attachments:      [Certified Bid Tab](#)  
[Award Recommendation-City council Warren Paving](#)  
[Hattiesburg Taxiway A Extension Part 2 - Spec Book](#)  
[Hattiesburg Taxiway A Extension Part 2 Plans - Revised](#)  
[Hattiesburg Taxiway A Extension Part 2 - Contract](#)  
[Executed - Hattiesburg Taxiway A Extension Part 2 - Contract with Warren Pavi](#)

- VII.-4**     [2018-573](#)     Acknowledge receipt of a permanent Right-of-Way Easement for a portion of Tax Parcel No. 2-028L-07-018.00 (PPIN 23108), a permanent Right-of-Way Easement for a portion of Tax Parcel No. 2-028L-07-147.00 (PPIN 23169), and a Temporary Construction Easement for a portion of Tax Parcels 2-028L-07-148.00 (PPIN 23218), 2-028L-07-149.00 (PPIN 23219), and 2-028L-07-152.00 (PPIN 23217), all from the University of Southern Mississippi for the 38th Avenue Pathway Project; Authorize City Clerk to record permanent easements with the county.

**Attachments:**     [Signed Easements - 38th Avenue.SOS](#)

- VII.-5**     [2018-574](#)     Acknowledge receipt of signed and notarized permanent easements for a portion of Lamar County Parcels as detailed below for the COMSWIP Sewer Phase V project; Authorize payment to property owners for established values as noted below.

| Value       | Lamar County Parcel No. |
|-------------|-------------------------|
| \$ 1,800.00 | 052A-03-004.045         |
| \$ 6,000.00 | 052A-03-004.046         |
| \$ 1,800.00 | 052A-03-004.047         |
| \$ 1,200.00 | 052A-03-004.048         |
| \$ 1,800.00 | 052A-03-004.049         |
| \$ 2,550.00 | 052A-03-004.050         |

**Attachments:**     [Signed Perm Easement.Weill.1](#)  
[Signed Easement.Bevard.1](#)  
[Signed Easement.Hester.1](#)  
[Signed Easement.Regina Lee.1](#)  
[Signed Easement.Eye.1](#)  
[Signed Permanent Easement.Rutland.1](#)

- VII.-6**     [2018-572](#)     Approve plans and specifications for the Reconstruction of N. 31st Avenue and Alley Project (No. DECD-0018(34)BO); Authorize Advertisement for bids for same.

**Attachments:**     [SECTION 900 31ST AVE - Advertisement](#)  
[Specs Complete](#)  
[FINAL SETW STANDARDS.pdf](#)

- VII.-7**     [2018-565](#)     Approve and authorize issuance of manual check for CDBG Program Claim per attached memorandum. {Entitlement CDBG}

**Attachments:**     [CDBG Program Claim July 3, 2018.pdf](#)

- VII.-8**     [2018-575](#)     Approve the sale of grave spaces, per attached Receipts, Memo's and Deeds.

**Attachments:**     [Receipts \(07-03-18\)](#)  
                              [Memo's \(07-03-18\)](#)  
                              [Deeds \(07-03-18\)](#)

- VII.-9**     [2018-564](#)     Approve claims docket for the period ending June 30, 2018

**Attachments:**     [DOCKET 18.06-30](#)

- VII.-10**    [2018-583](#)     Acknowledge no bids were received at the bid opening June 28, 2018 for the Infrastructure Rehabilitation Arledge Street & Katie Avenue Area project (related to the Public Safety Complex Project); Authorize re-advertisement for bids for same project.

**Attachments:**     [Recommendation Letter for Re-advertisement](#)  
                              [11258\\_Plan\\_Sheet Ready Set Signed 2018-05-14](#)  
                              [11258 Specs Review Set \(Lamar\)](#)  
                              [ADVERTISEMENT FOR BIDS-readvertisement](#)  
                              [Executed - ADVERTISEMENT FOR BIDS-readvertisement](#)



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-570**

**File ID:** 2018-570

**Type:** Resolution

**Status:** Passed

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Chris Price

**File Created:** 06/21/2018

**Brief Title:** Adopt Resolutions condemning the following properties as unclean and a menace to the community

**Final Action:** 07/03/2018

**Minute Book Number:** MB2018-168

**Title:** Adopt Resolutions on July 3, 2018 condemning such properties as uncleanness and a menace to the health and safety of the community.

### Notes:

**Agenda Date:** 07/03/2018

### Indexes:

**Agenda Number:** VI.-1

### Sponsors:

**Enactment Date:**

**Attachments:** P.H. resolution adoption 7.3.18, 1. 804 E 6th\_resolution, 2. 1104 Franklin ST\_resolution, 3. 315 Miller St\_resolution, 4. 990 Hardy st\_resolution, 5. 530 Buschman\_resolution, 6. 1326 Pine st\_resolution, 7. 210 Rosa Ave\_resolution, 8. 325 Emerson Dr\_resolution, 9. 607 Graymont Ave\_resolution, 11. 107 E. 7th St.\_resolution, 12. 705 Bouie St\_resolution, Executed - Res#2018-82 - 804 E 6th resolution, Executed - Res#2018-83 - 1104 Franklin St resolution, Executed - Res#2018-84 - 315 Miller St resolution, Executed - Res#2018-85 - 990 Hardy St resolution, Executed - Res#2018-86 - 530 Buschman resolution, Executed - Res#2018-87 - 1326 Pine St resolution, Executed - Res#2018-88 - 210 Rosa Ave resolution, Executed - Res#2018-89 - 325 Emerson Dr resolution, Executed - Res#2018-90 - 607 Graymont Ave resolution, Executed - Res#2018-91 - 107 E. 7th St resolution, Executed - Res#2018-92 - 705 Bouie St resolution

**Enactment Number:**

### Contact:

**Meeting Date:** 07/03/2018

**Drafter:** Ashley Fortenberry

**Effective Date:**

## History of Legislative File

| Ver-<br>sion: | Acting Body: | Date: | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|-------|---------|----------|-----------|-----------------|---------|
|---------------|--------------|-------|---------|----------|-----------|-----------------|---------|

1 City Council 07/03/2018 Adopt Pass

**Action Text:** A MOTION was made by Council Vice President Dryden and seconded by Council Member George to Adopt Resolutions on July 3, 2018 condemning such properties as uncleanliness and a menace to the health and safety of the community.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado, Carroll, Dryden and Brown

Nays: 0

Yea: 5 Council Member George  
Council Member Delgado  
Council President Carroll  
Council Vice President Dryden  
Council Member Brown

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### **Text of Legislative File 2018-570**

#### **Title**

Adopt Resolutions on July 3, 2018 condemning such properties as uncleanliness and a menace to the health and safety of the community.

#### **Summary**

Adopt Resolutions condemning properties of uncleanliness and a menace to the health and safety of the community.

#### **Budget Information**

#### **Expenditure Type**

#### **Purchasing Item**

#### **Publication Information**



MAYOR  
*Toby Barker*

COUNCIL - WARD ONE  
*Jeffrey George*

COUNCIL - WARD TWO  
*Deborah Denard Delgado*

COUNCIL - WARD THREE  
*Carter Carroll*

COUNCIL - WARD FOUR  
*Mary Dryden*

COUNCIL - WARD FIVE  
*Nicholas Brown*

## **MEMORANDUM**

TO: Mayor and City Council

FROM: Chris Price, Code Enforcement Manager

DATE: June 21, 2018

RE: Adopt a Resolution

I recommend the adoption of resolutions determining the following properties are in such a state of uncleanliness so as to be a menace to the health and safety of the community.

| Address                         | PPIN # | Ward | Violations                  |
|---------------------------------|--------|------|-----------------------------|
| 1. 804 East 6 <sup>th</sup> St. | 015451 | 2    | AB, DB, OGL, T&L, VS, DM    |
| 2. 1104 Franklin St.            | 024108 | 2    | AB, DB, OGL, US, T&L, VS DM |
| 3. 315 Miller St.               | 020574 | 2    | DS, OGL, US, T&L, DM        |
| 4. 990 Hardy St.                | 013242 | 4    | OGL, VS                     |
| 5. 530 Buschman St.             | 015803 | 4    | DS, OGL, T&L                |
| 6. 1326 Pine St.                | 015216 | 5    | AB, DS, OGL                 |
| 7. 210 Rosa Ave.                | 013821 | 2    | OGL, VS                     |
| 8. 325 Emerson Dr.              | 022813 | 4    | OGL, T&L, VS                |
| 9. 607 Graymont Ave.            | 024991 | 2    | OGL                         |

|                                |        |   |                  |
|--------------------------------|--------|---|------------------|
| 11. 107 E. 7 <sup>th</sup> St. | 014449 | 2 | OGL, T&L         |
| 12. 705 Bouie St.              | 017501 | 2 | DS, OGL, T&L, VS |



Trash & Litter=T&L  
Vacant Structure=VS  
Dangerous Structure=DS  
Overgrown Lot=OGL  
Open Storage=OS  
Protective Treatment=PT  
Accessory Structure=AS  
Unsafe Structure=US  
Abandoned Vehicle=AV  
Interior Structure=IS  
Exterior Structure=ES  
Electrical=EL  
Responsibility (Water) =RW  
Hazardous Tree=HT  
Glazing=GL  
PID=Premise Id  
X's2=2 Structures  
Structure Built in Right of Way= SBROW  
Demo=DM

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #1 804 E. 6<sup>th</sup> St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029H-03-295, 804 East 6th ST. HATTIESBURG, MS 39401 39401 described real property, situated and being in the City of Hattiesburg, County of Forrest, State of Mississippi, and mire particularly described as follows, to-wit:

All of Lot 10 and the West 16 feet of Lot 11 in Block 9 of the T.M. Fuller & O.J. Brown Survey or Addition to the City of Hattiesburg, Forrest County, Mississippi, being a part of the SE ¼ of the SE 14/4 of Section 3, Township 4 North, Range 13 West, together with all improvements thereon.

**WHEREAS**, the owner of the property is: Peggy Smith

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Abandoned Building (International Property Maintenance Code, Sec. 301.3)**  
**Dilapidated Building (International Property Maintenance Code, Sec. 304)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

**ATTEST:**

**ADOPTED:**

CLERK OF COUNCIL

**PRESIDENT**

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

**ATTEST:**

**APPROVED:**

CITY CLERK

**MAYOR**



Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #2 1104 Franklin St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-038B-15-540, 1104 Franklin ST. HATTIESBURG, MS 39401 described real property, situated and being in the City of Hattiesburg, County of Forrest, State of Mississippi, and mire particularly described as follows, to-wit:

Lot Seven (7), Block Two (2) of the J.B. STEVENS AND W.M. CONNER SUBDIVISION, in the City of Hattiesburg, County of Forrest, State of Mississippi, as per the map or plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi; together with all improvements thereon and appurtenances thereto belonging.

**WHEREAS**, the owner of the property is: Church of God In Christ Faith

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Abandoned Building (International Property Maintenance Code, Sec. 301.5)**  
**Dilapidated Building (International Property Maintenance Code, Sec. 304)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Unsafe Structure (International Property Maintenance Code, Sec. 304.1.1)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

**ATTEST:**

**ADOPTED:**

CLERK OF COUNCIL

**PRESIDENT**

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

**ATTEST:**

**APPROVED:**

CITY CLERK

**MAYOR**

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #3 315 Miller St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029K-09-135, 315 Miller ST. HATTIESBURG, MS 39401 and better described as:

Lot 9, Block 5, C.J. Miller Survey, and Forrest County, Mississippi, as per the official map or plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi

**WHEREAS**, the owner of the property is: Ricky Lindsey and Rodney & Carol Lynn Johnson

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Dangerous Structure (International Property Maintenance Code, Sec. 108.1.5)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Unsafe Structure (International Property Maintenance Code, Sec. 304.1.1)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

\_\_\_\_\_  
CLERK OF COUNCIL

\_\_\_\_\_  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR



Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
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City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #4 990 Hardy St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029N-09-029, 990 Hardy ST. HATTIESBURG, MS 39401 and better described as:

All of Lot 7, except 8 feet off the East side thereof, and all of Lots 8, 9, and 10 of the W.C. Bennett Addition to the City of Hattiesburg, Forrest County, Mississippi, being a re-subdivision of a part of Block G of the John Kamper Survey, and also a re-subdivision of Lots 1-6 inclusive of the Hardy Subdivision of Blocks F and G of the Kamper Survey in the NW ¼ of the SE 1/4 of Section 9, T-4-N, R-13-W, in the City of Hattiesburg, Forrest County, Mississippi, said property being also described as the West 42 feet of Lot 7 and all of Lots 8, 9, and 10 in the W.C. Bennett Addition to the City of Hattiesburg, Forrest County, Mississippi.

**WHEREAS**, the owner of the property is: MMM Properties LLC

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Dilapidated Building (International Property Maintenance Code, Sec. 304)**

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Unsafe Structure (International Property Maintenance Code, Sec304.1.1)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

**ATTEST:**

**ADOPTED:**

**CLERK OF COUNCIL**

**PRESIDENT**

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

**ATTEST:**

**APPROVED:**

CITY CLERK

MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #5 530 Buschman St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029I-10-168, 530 Buschman ST. HATTIESBURG, MS 39401 and better described as:

All of Lot one (1), two (2), three (3), four (4), five (5), six (6), seven (7), eight (8), and lots thirteen (13), fourteen (14), fifteen (15), and sixteen (16) of Block 49 (forty-nine) of Hardy and Scott Survey in the City of Hattiesburg, County of Forrest, State of Mississippi together with all improvements thereon belonging.

**WHEREAS**, the owner of the property is: Julian Thomas Benson

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Dangerous Structure (International Property Maintenance Code, Sec. 108.1.5)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

\_\_\_\_\_  
CLERK OF COUNCIL

\_\_\_\_\_  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #6 1326 Pine St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-038C-16-300, 1326 Pine ST. HATTIESBURG, MS 39401 and better described as:

Commencing as the Northeasterly corner of Block 70 of Plat Number One of the D. D. McInnis Third Addition to the City of Hattiesburg, at the intersection of the Southern line of West Royal Street and the Western right of way line of the New Orleans and Northeastern Railroad Company; run thence Southwardly along said right way and the Eastern boundary line of Block 70, 1405 feet; thence parallel with said Southern line of West Royal Street Westwardly 433 feet to the Eastern west boundary line of West Pine Street for a point of beginning; thence Northwardly along the Eastern boundary line of West Pine Street 100 feet; thence at right angles Easterly and parallel with Southern line of West Riyal Street 100 feet; thence Southwardly and parallel with said Eastern line of West Pine Street 100 feet; thence at right angles Westwardly and parallel with said Southern boundary line of West Royal Street 100 feet to the point of beginning, said lot or parcel fronting 100 feet on West Pine Street and extending back between parallel line 100 feet, and being located in Section 16, Township 4 North, Range 13 West, in said County and State, and being embraced in what is known as the "Ferguson and McInnis Subdivision of Block 70 of the D. D. McInnis Third addition to the City of Hattiesburg, Mississippi," map of which has never been approved by the City and County authorities and never recorded.

**WHEREAS**, the owner of the property is: Wali's Stop Shoppe LLC

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg,

Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Abandoned Building (International Property Maintenance Code, Sec. 301.3)**  
**Dangerous Structures (International Property Maintenance Code, Sec. 108.1.5)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

\_\_\_\_\_  
CLERK OF COUNCIL

\_\_\_\_\_  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #7 210 Rosa Ave.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-038B-15-217 210 Rosa Ave. HATTIESBURG, MS 39401 and better described as:

Lot 3, Block 6, Buschman J H Subdivision, Forrest County, Mississippi.

**WHEREAS**, the owner of the property is: Durrant INC.

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

\_\_\_\_\_  
CLERK OF COUNCIL

\_\_\_\_\_  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR



Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #8 325 Emerson Dr.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-028J-08-072, 325 Emerson Dr., HATTIESBURG, MS 39401 and better described as:

Lot 152 of Parkhaven North Subdivision or Addition to Forrest County, Mississippi, as per the official map or plat thereof on file in the office of Chancery Clerk of Forrest County, Mississippi, together with the improvements lying thereon and appurtenances thereunto.

**WHEREAS**, the owner of the property is: Ann P and Samuel P Murchison.

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal

disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

\_\_\_\_\_  
CLERK OF COUNCIL

\_\_\_\_\_  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #9 607 Graymont Ave.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-028H-05-143, 607 Graymont Ave., HATTIESBURG, MS 39401 and better described as:

Lot 2, Block 1 OF THE WESTVIEW SUBDIVISION, A SUBDIVISION ACCORDING TO A MAP OR PLAT THEREOF WHICH IS ON FILE AND OF RECORD IN THE OFFICE OF THE CHANCERY CLERK OF FORREST COUNTY, MISSISSIPPI, IN PLAT BOOK 8 AT PAGE 31; TOGETHER WITH ALL IMPROVEMENTS THEREON AND APPURTENANCES THEREUNTO BELONGING.

**WHEREAS**, the owner of the property is: The Bank of New York

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

\_\_\_\_\_  
CLERK OF COUNCIL

\_\_\_\_\_  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #11 107 E. 7<sup>th</sup> St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029F-04-287, 107 E. 7<sup>th</sup> St. HATTIESBURG, MS 39401 and better described as:

Commence at the point of intersection of the South Boundary of East Seventh Street and the Eastern Boundary of Main Street, as said streets are now laid out and used, and run in a Southeasterly direction along Main Street 83 feet; thence run East and parallel with East Seventh Street 271.5 feet; thence run North 72.7 feet to the South boundary of East Seventh Street to the point of beginning of the land hereby described and conveyed, said intersection of the South Boundary of Main Street; from said Point of Beginning, run East along the South boundary of East Seventh Street for a distance of 100 feet; thence run South 131.86 feet; thence run West and parallel with East Seventh Street 100 feet; thence run North 131.86 feet to the Point of Beginning; said property being a strip of land 100 feet off the East end of what is called Lot Twi (2) of the F. F. Phillips Third Addition as per the map or plat thereof on file and the record in the Chancery Clerk of Forrest County, Mississippi, together with all improvements lying thereon and appurtenances thereunto belonging.

**WHEREAS**, the owner of the property is: William Franklin and Martha Cook

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)  
Trash and Litter (International Property Maintenance Code, Sec. 307.1)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

**ATTEST:**

**ADOPTED:**

\_\_\_\_\_  
**CLERK OF COUNCIL**

\_\_\_\_\_  
**PRESIDENT**

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

**ATTEST:**

**APPROVED:**

\_\_\_\_\_  
**CITY CLERK**

\_\_\_\_\_  
**MAYOR**

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #12 705 Bouie St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029H-03-139, 705 Bouie St. HATTIESBURG, MS 39401 and better described as:

Lot 12, Block 37 of the Hicks Subdivision of the Hardy & Scott Survey of the City of Hattiesburg as per map or plat thereof on file in the office of the Chancery Clerk, along with all improvements thereon and appurtenances thereunto belonging.

**WHEREAS**, the owner of the property is: Roy Lee Price

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Dangerous Structure (International Property Maintenance Code, Sec. 108.1.5)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the

City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_ seconded by Council member \_\_\_\_\_, and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

\_\_\_\_\_  
CLERK OF COUNCIL

\_\_\_\_\_  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR



Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #1 804 E. 6<sup>th</sup> St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029H-03-295, 804 East 6th ST. HATTIESBURG, MS 39401 39401 described real property, situated and being in the City of Hattiesburg, County of Forrest, State of Mississippi, and mire particularly described as follows, to-wit:

All of Lot 10 and the West 16 feet of Lot 11 in Block 9 of the T.M. Fuller & O.J. Brown Survey or Addition to the City of Hattiesburg, Forrest County, Mississippi, being a part of the SE ¼ of the SE 14/4 of Section 3, Township 4 North, Range 13 West, together with all improvements thereon.

**WHEREAS**, the owner of the property is: Peggy Smith

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

Abandoned Building (International Property Maintenance Code, Sec. 301.3)  
Dilapidated Building (International Property Maintenance Code, Sec. 304)  
Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)  
Trash and Litter (International Property Maintenance Code, Sec. 307.1)  
Vacant Structure (International Property Maintenance Code, Sec. 301.3)

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

YEAS: George  
Delgado  
Carroll  
Dryden  
Brown

NAYS: None

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

  
Deputy CLERK OF COUNCIL

  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

  
CITY CLERK

  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #2 1104 Franklin St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-038B-15-540, 1104 Franklin ST. HATTIESBURG, MS 39401 described real property, situated and being in the City of Hattiesburg, County of Forrest, State of Mississippi, and mire particularly described as follows, to-wit:

Lot Seven (7), Block Two (2) of the J.B. STEVENS AND W.M. CONNER SUBDIVISION, in the City of Hattiesburg, County of Forrest, State of Mississippi, as per the map or plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi; together with all improvements thereon and appurtenances thereto belonging.

**WHEREAS**, the owner of the property is: Church of God In Christ Faith

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

Abandoned Building (International Property Maintenance Code, Sec. 301.5)  
Dilapidated Building (International Property Maintenance Code, Sec. 304)  
Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)  
Trash and Litter (International Property Maintenance Code, Sec. 307.1)  
Unsafe Structure (International Property Maintenance Code, Sec. 304.1.1)  
Vacant Structure (International Property Maintenance Code, Sec. 301.3)

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

YEAS:

George  
Delgado  
Carroll  
Dryden  
Brown

NAYS:

None

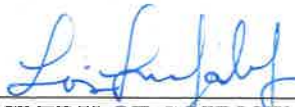
ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

Deputy   
CLERK OF COUNCIL

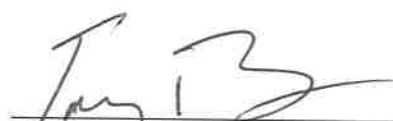
  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

  
CITY CLERK

  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #3 315 Miller St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029K-09-135, 315 Miller ST. HATTIESBURG, MS 39401 and better described as:

Lot 9, Block 5, C.J. Miller Survey, and Forrest County, Mississippi, as per the official map or plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi

**WHEREAS**, the owner of the property is: Ricky Lindsey and Rodney & Carol Lynn Johnson

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Dangerous Structure (International Property Maintenance Code, Sec. 108.1.5)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Unsafe Structure (International Property Maintenance Code, Sec. 304.1.1)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

|       |         |       |      |         |
|-------|---------|-------|------|---------|
| YEAS: | George  | NAYS: | None | ABSENT: |
|       | Delgado |       |      |         |
|       | Carroll |       |      |         |
|       | Dryden  |       |      |         |
|       | Brown   |       |      |         |

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

  
CLERK OF COUNCIL

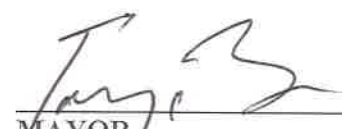
  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

  
CITY CLERK

  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #4 990 Hardy St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029N-09-029, 990 Hardy ST. HATTIESBURG, MS 39401 and better described as:

All of Lot 7, except 8 feet off the East side thereof, and all of Lots 8, 9, and 10 of the W.C. Bennett Addition to the City of Hattiesburg, Forrest County, Mississippi, being a re-subdivision of a part of Block G of the John Kamper Survey, and also a re-subdivision of Lots 1-6 inclusive of the Hardy Subdivision of Blocks F and G of the Kamper Survey in the NW ¼ of the SE 1/4 of Section 9, T-4-N, R-13-W, in the City of Hattiesburg, Forrest County, Mississippi, said property being also described as the West 42 feet of Lot 7 and all of Lots 8, 9, and 10 in the W.C. Bennett Addition to the City of Hattiesburg, Forrest County, Mississippi.

**WHEREAS**, the owner of the property is: MMM Properties LLC

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Dilapidated Building (International Property Maintenance Code, Sec. 304)**

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Unsafe Structure (International Property Maintenance Code, Sec304.1.1)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

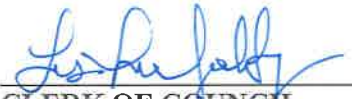
The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

|         |       |         |
|---------|-------|---------|
| YEAS:   | NAYS: | ABSENT: |
| George  | None  |         |
| Delgado |       |         |
| Carroll |       |         |
| Dryden  |       |         |
| Brown   |       |         |

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST: ADOPTED:

Deputy   
CLERK OF COUNCIL

  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST: APPROVED:

  
CITY CLERK

  
MAYOR



Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #5 530 Buschman St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029I-10-168, 530 Buschman ST. HATTIESBURG, MS 39401 and better described as:

All of Lot one (1), two (2), three (3), four (4), five (5), six (6), seven (7), eight (8), and lots thirteen (13), fourteen (14), fifteen (15), and sixteen (16) of Block 49 (forty-nine) of Hardy and Scott Survey in the City of Hattiesburg, County of Forrest, State of Mississippi together with all improvements thereon belonging.

**WHEREAS**, the owner of the property is: Julian Thomas Benson

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Dangerous Structure (International Property Maintenance Code, Sec. 108.1.5)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

YEAS:

George  
Delgado  
Carroll  
Dryden  
Brown

NAYS:

None

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

Deputy Lisa Lufkin  
CLERK OF COUNCIL

B. G. G. G.  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

[Signature]  
CITY CLERK

[Signature]  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #6 1326 Pine St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-038C-16-300, 1326 Pine ST. HATTIESBURG, MS 39401 and better described as:

Commencing as the Northeasterly corner of Block 70 of Plat Number One of the D. D. McInnis Third Addition to the City of Hattiesburg, at the intersection of the Southern line of West Royal Street and the Western right of way line of the New Orleans and Northeastern Railroad Company; run thence Southwardly along said right way and the Eastern boundary line of Block 70, 1405 feet; thence parallel with said Southern line of West Royal Street Westwardly 433 feet to the Eastern west boundary line of West Pine Street for a point of beginning; thence Northwardly along the Eastern boundary line of West Pine Street 100 feet; thence at right angles Easterly and parallel with Southern line of West Riyal Street 100 feet; thence Southwardly and parallel with said Eastern line of West Pine Street 100 feet; thence at right angles Westwardly and parallel with said Southern boundary line of West Royal Street 100 feet to the point of beginning, said lot or parcel fronting 100 feet on West Pine Street and extending back between parallel line 100 feet, and being located in Section 16, Township 4 North, Range 13 West, in said County and State, and being embraced in what is known as the "Ferguson and McInnis Subdivision of Block 70 of the D. D. McInnis Third addition to the City of Hattiesburg, Mississippi," map of which has never been approved by the City and County authorities and never recorded.

**WHEREAS**, the owner of the property is: Wali's Stop Shoppe LLC

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg,

Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Abandoned Building (International Property Maintenance Code, Sec. 301.3)**  
**Dangerous Structures (International Property Maintenance Code, Sec. 108.1.5)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

|         |       |         |
|---------|-------|---------|
| YEAS:   | NAYS: | ABSENT: |
| George  | None  |         |
| Delgado |       |         |
| Carroll |       |         |
| Dryden  |       |         |
| Brown   |       |         |

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

*Deputy* Lisa L. Lively  
CLERK OF COUNCIL

[Signature]  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

[Signature]  
CITY CLERK

[Signature]  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #7 210 Rosa Ave.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-038B-15-217 210 Rosa Ave. HATTIESBURG, MS 39401 and better described as:  
Lot 3, Block 6, Buschman J H Subdivision, Forrest County, Mississippi.

**WHEREAS**, the owner of the property is: Durrant INC.

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

|         |       |         |
|---------|-------|---------|
| YEAS:   | NAYS: | ABSENT: |
| George  | None  |         |
| Delgado |       |         |
| Carroll |       |         |
| Dryden  |       |         |
| Brown   |       |         |

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

*Deputy*   
CLERK OF COUNCIL

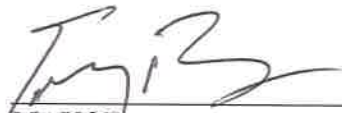
  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

  
CITY CLERK

  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #8 325 Emerson Dr.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-028J-08-072, 325 Emerson Dr., HATTIESBURG, MS 39401 and better described as:

Lot 152 of Parkhaven North Subdivision or Addition to Forrest County, Mississippi, as per the official map or plat thereof on file in the office of Chancery Clerk of Forrest County, Mississippi, together with the improvements lying thereon and appurtenances thereunto.

**WHEREAS**, the owner of the property is: Ann P and Samuel P Murchison.

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal

disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

YEAS:

George  
Delgado  
Carroll  
Dryden  
Brown

NAYS:

None

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

*Deputy*  
  
CLERK OF COUNCIL

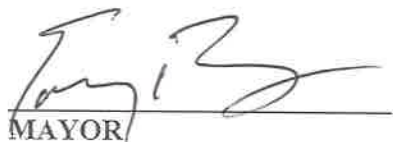
  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

  
CITY CLERK

  
MAYOR



Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #9 607 Graymont Ave.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanliness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-028H-05-143, 607 Graymont Ave., HATTIESBURG, MS 39401 and better described as:

Lot 2, Block 1 OF THE WESTVIEW SUBDIVISION, A SUBDIVISION ACCORDING TO A MAP OR PLAT THEREOF WHICH IS ON FILE AND OF RECORD IN THE OFFICE OF THE CHANCERY CLERK OF FORREST COUNTY, MISSISSIPPI, IN PLAT BOOK 8 AT PAGE 31; TOGETHER WITH ALL IMPROVEMENTS THEREON AND APPURTENANCES THEREUNTO BELONGING.

**WHEREAS**, the owner of the property is: The Bank of New York

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanliness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

YEAS:

George  
Delgado  
Carroll  
Dryden  
Brown

NAYS:

None

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

Deputy Lisa Hufly  
CLERK OF COUNCIL

B. Smith  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

B. Smith  
CITY CLERK

Tim B  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #11 107 E. 7<sup>th</sup> St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029F-04-287, 107 E. 7<sup>th</sup> St. HATTIESBURG, MS 39401 and better described as:

Commence at the point of intersection of the South Boundary of East Seventh Street and the Eastern Boundary of Main Street, as said streets are now laid out and used, and run in a Southeasterly direction along Main Street 83 feet; thence run East and parallel with East Seventh Street 271.5 feet; thence run North 72.7 feet to the South boundary of East Seventh Street to the point of beginning of the land hereby described and conveyed, said intersection of the South Boundary of Main Street; from said Point of Beginning, run East along the South boundary of East Seventh Street for a distance of 100 feet; thence run South 131.86 feet; thence run West and parallel with East Seventh Street 100 feet; thence run North 131.86 feet to the Point of Beginning; said property being a strip of land 100 feet off the East end of what is called Lot Twi (2) of the F. F. Phillips Third Addition as per the map or plat thereof on file and the record in the Chancery Clerk of Forrest County, Mississippi, together with all improvements lying thereon and appurtenances thereunto belonging.

**WHEREAS**, the owner of the property is: William Franklin and Martha Cook

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)  
Trash and Litter (International Property Maintenance Code, Sec. 307.1)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

|       |         |       |      |         |
|-------|---------|-------|------|---------|
| YEAS: | George  | NAYS: | None | ABSENT: |
|       | Delgado |       |      |         |
|       | Carroll |       |      |         |
|       | Dryden  |       |      |         |
|       | Brown   |       |      |         |

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

*Deputy* Lise Hurff  
CLERK OF COUNCIL

L. Paul  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

LSD  
CITY CLERK

Tim B  
MAYOR

Prepared by:  
City of Hattiesburg  
Code Enforcement  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

Return to:  
City of Hattiesburg  
City Clerk's Office  
P.O. Box 1898  
Hattiesburg, Mississippi 39403-1898

**RESOLUTION**  
**CONDEMNATION OF UNSAFE AND DILAPIDATED PROPERTY**  
**Case #12 705 Bouie St.**

**WHEREAS**, on the 22nd day of May 2018 the Council of the City of Hattiesburg, Mississippi, passed a resolution announcing the intention of the City Council to hold a hearing on, the 2nd day of July, 2018, in the Council Meeting Room of City Hall in Hattiesburg, Mississippi, as provided by Section 21-19-11 of the Mississippi Code of 1972, as annotated and amended, to determine whether or not the following described property is in such a state of uncleanness as to be a menace to the health and safety of the community, to-wit:

PARCEL: 2-029H-03-139, 705 Bouie St. HATTIESBURG, MS 39401 and better described as:

Lot 12, Block 37 of the Hicks Subdivision of the Hardy & Scott Survey of the City of Hattiesburg as per map or plat thereof on file in the office of the Chancery Clerk, along with all improvements thereon and appurtenances thereunto belonging.

**WHEREAS**, the owner of the property is: Roy Lee Price

**WHEREAS**, proper and timely notice of said hearing was given to said parties more than two weeks prior to the date of the hearing; and

**WHEREAS**, at said hearing it was determined that the aforementioned property is in such a state of uncleanness as to be a menace to the health and safety of the community and should be condemned.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Hattiesburg, Mississippi, as follows:

1. A period of fifteen (15) days shall be extended to the property owner for removal of the violations listed:

**Dangerous Structure (International Property Maintenance Code, Sec. 108.1.5)**  
**Overgrown Lot or Weeds (International Property Maintenance Code, Sec. 302.4)**  
**Trash and Litter (International Property Maintenance Code, Sec. 307.1)**  
**Vacant Structure (International Property Maintenance Code, Sec. 301.3)**

2. If the property owners do not take corrective action within fifteen (15) days to remove the violations, then after a complete and final legal review of the property conducted by the City Attorney, the

City will take action to remove all violations listed, said work to be legally contracted with a private contractor or City crews, and the cost of same plus penalty to be certified to the City Clerk for further legal disposition.

3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council member Dryden seconded by Council member George, and was adopted by the following vote, to-wit:

YEAS:

George  
Delgado  
Carroll  
Dryden  
Brown

NAYS:

None

ABSENT:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the 3rd day of July, 2018.

(SEAL)

ATTEST:

ADOPTED:

Deputy   
CLERK OF COUNCIL

  
PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018

ATTEST:

APPROVED:

  
CITY CLERK

  
MAYOR



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-561**

**File ID:** 2018-561

**Type:** Resolution

**Status:** Passed

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:**

**File Created:** 06/20/2018

**Brief Title:** Changing time of Council meeting to 4:00p.m on 8-7-2018, to allow for the participation of City Officials in National Night Out Against Crime events.

**Final Action:** 07/03/2018

**Minute Book Number:** MB2018-168

**Title:**

Adopt a Resolution changing the time of the August 7,2018, City Council meeting to 4p.m to allow city officials to participate in the City of Hattiesburg's National Night Out Against Crime activities.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VI.-2

**Sponsors:**

**Enactment Date:**

**Attachments:** Time Change Resolution-8-7-2018, Executed - Res#2018-93 - Time Change Resolution-8-7-2018

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:**

**Effective Date:**

## History of Legislative File

| Ver-<br>sion:                                                                                                                                                                                                                                                                                                            | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1                                                                                                                                                                                                                                                                                                                        | City Council | 07/03/2018 | Adopt   |          |           |                 | Pass    |
| <b>Action Text:</b> A MOTION was made by Council Vice President Dryden and seconded by Council Member George to Adopt a Resolution changing the time of the August 7,2018, City Council meeting to 4p.m to allow city officials to participate in the City of Hattiesburg's National Night Out Against Crime activities. |              |            |         |          |           |                 |         |
| There being no discussion, the Motion received the affirmative vote of the Council as follows:                                                                                                                                                                                                                           |              |            |         |          |           |                 |         |
| Yeas: 5 - George, Delgado, Carroll, Dryden and Brown                                                                                                                                                                                                                                                                     |              |            |         |          |           |                 |         |
| Nays: 0                                                                                                                                                                                                                                                                                                                  |              |            |         |          |           |                 |         |
| Yea: 5 Council Member George<br>Council Member Delgado<br>Council President Carroll<br>Council Vice President Dryden<br>Council Member Brown                                                                                                                                                                             |              |            |         |          |           |                 |         |

**Text of Legislative File 2018-561**

**Title**

Adopt a Resolution changing the time of the August 7, 2018, City Council meeting to 4p.m to allow city officials to participate in the City of Hattiesburg's National Night Out Against Crime activities.

**Summary**

Changing Council meeting time to 4p.m on 8//72018, to allow city officials to participate in National Night Out Against Crime activities.

**Budget Information**

**Expenditure Type**

**Purchasing Item**

**Publication Information**



## RESOLUTION

**WHEREAS**, the City of Hattiesburg has committed to inform all citizens to be aware of the importance of crime prevention programs and the impact that their participation can have on reducing crime, drugs and violence in the City; and

**WHEREAS**, police-community partnerships, neighborhood safety, awareness and cooperation are an important theme of the “National Night Out “program; and

**WHEREAS**, a successful Night Out event requires the participation of all city officials.

**NOW THEREFORE BE IT RESOLVED** that the Mayor and Council hereby change the time of the August 7<sup>th</sup>, 2018 Council Meeting to 4:00 P.M. to allow City Officials to participate in the City of Hattiesburg's National Night Out Against Crime Activities.

The above and foregoing resolution, after having been first reduced to writing, was introduced by Council member \_\_\_\_\_, seconded by Council member \_\_\_\_\_ and was adopted by the following vote, to-wit:

YEAS:

NAYS:

ABSENT:

The President thereby declared the motion carried and the resolution adopted, this the 3rd day of July 2018.

(SEAL)

ATTEST:

ADOPTED:

\_\_\_\_\_  
CLERK OF COUNCIL

\_\_\_\_\_  
PRESIDENT

The above and foregoing resolution having been submitted to and approved by the Mayor, this the 3rd day of July 2018.

ATTEST:

ADOPTED:

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR

## RESOLUTION

**WHEREAS**, the City of Hattiesburg has committed to inform all citizens to be aware of the importance of crime prevention programs and the impact that their participation can have on reducing crime, drugs and violence in the City; and

**WHEREAS**, police-community partnerships, neighborhood safety, awareness and cooperation are an important theme of the "National Night Out" program; and

**WHEREAS**, a successful Night Out event requires the participation of all city officials.

**NOW THEREFORE BE IT RESOLVED** that the Mayor and Council hereby change the time of the August 7<sup>th</sup>, 2018 Council Meeting to 4:00 P.M. to allow City Officials to participate in the City of Hattiesburg's National Night Out Against Crime Activities.

The above and foregoing resolution, after having been first reduced to writing, was introduced by Council member Dryden, seconded by Council member George and was adopted by the following vote, to-wit:

|       |         |       |      |         |
|-------|---------|-------|------|---------|
| YEAS: | George  | NAYS: | None | ABSENT: |
|       | Delgado |       |      |         |
|       | Carroll |       |      |         |
|       | Dryden  |       |      |         |
|       | Brown   |       |      |         |

The President thereby declared the motion carried and the resolution adopted, this the 3rd day of July 2018.

(SEAL)

ATTEST:

ADOPTED:

*Deputy*   
CLERK OF COUNCIL

  
PRESIDENT

The above and foregoing resolution having been submitted to and approved by the Mayor, this the 3rd day of July 2018.

ATTEST:

ADOPTED:

  
CITY CLERK

  
MAYOR



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-557**

**File ID:** 2018-557

**Type:** Regular Agenda Item

**Status:** Passed

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Anthony Parker

**File Created:** 06/18/2018

**Brief Title:** Purchase of Service Weapon - Asst. Chief Misenhelter

**Final Action:** 07/03/2018

**Minute Book Number:** MB2018-168

**Title:**

Adopt an order to approve the sale of a personal service weapon to retiring Assistant Chief of Police Eugene Frank Misenhelter pursuant to Mississippi Code Annotated 45-9-131

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VI.-3

**Sponsors:**

**Enactment Date:**

**Attachments:** Purchase of Service Weapon - Asst. Chief Misenhelter

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Tammy Leggett

**Effective Date:**

## History of Legislative File

| Ver-<br>sion:                                                                                                                                                                                                                                                                           | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1                                                                                                                                                                                                                                                                                       | City Council | 07/03/2018 | Adopt   |          |           |                 | Pass    |
| <b>Action Text:</b> A MOTION was made by Council Member George and seconded by Council Member Delgado to Adopt an order to approve the sale of a personal service weapon to retiring Assistant Chief of Police Eugene Frank Misenhelter pursuant to Mississippi Code Annotated 45-9-131 |              |            |         |          |           |                 |         |
| There being no discussion, the Motion received the affirmative vote of the Council as follows:                                                                                                                                                                                          |              |            |         |          |           |                 |         |
| Yeas: 5 - George, Delgado, Carroll, Dryden and Brown                                                                                                                                                                                                                                    |              |            |         |          |           |                 |         |
| Nays: 0                                                                                                                                                                                                                                                                                 |              |            |         |          |           |                 |         |
| Yea: 5 Council Member George<br>Council Member Delgado<br>Council President Carroll<br>Council Vice President Dryden<br>Council Member Brown                                                                                                                                            |              |            |         |          |           |                 |         |

## Text of Legislative File 2018-557

**Title**

Adopt an order to approve the sale of a personal service weapon to retiring Assistant Chief of Police Eugene Frank Misenhelter pursuant to Mississippi Code Annotated 45-9-131

**Summary**

Adopt an order to approve the sale of a personal service weapon Glock 22, 40 caliber City ID 17294 Serial Number MUY552 to retiring Assistant Chief Of Police Eugene Frank Misenhelter

**Budget Information**

**Expenditure Type**

**Purchasing Item**

**Publication Information**



## THE CITY OF HATTIESBURG

*One of America's Great Small Cities!*

**Anthony Parker, Chief of Police**

### MEMORANDUM

To: Mayor Toby Barker and City Council

From: Anthony Parker, Chief of Police APR

Date: June 18, 2018

**Re: Purchase of Service Weapon**

Asst. Chief Frank Misenhelter retired from the Hattiesburg Police Department effective June 15, 2018. I am requesting that the Hattiesburg Police Department Benefit Fund is allowed to purchase his service weapon per MS Code 45-9-131, which allows a member of any law enforcement agency who retires under any state retirement system to purchase as his personal property one (1) side arm which was issued to him by the law enforcement agency from which he retired. The governing authorities of the municipality shall determine the amount to be paid for the firearm for the retiring member of the law enforcement agency.

The Training Director was tasked with acquiring a "trade in" value of the weapon to be purchased. The trade in value is considered to be \$200.00-\$250.00. I respectfully request the purchase amount for the weapon to be \$100.00 for the Hattiesburg Police Department Benefit Fund. The following is a description of the weapon to be purchased.

Asst. Chief Misenhelter Glock 22, 40 caliber, serial number MUY552, City ID 17294

Thank you for your attention to this matter. If there is additional information that is needed, please let me know.



# HATTIESBURG POLICEMEN'S BENEFIT FUND, Inc.

300 KLONDYKE STREET  
HATTIESBURG, MISSISSIPPI 39401



**June 1, 2018**

Chief Anthony Parker  
Hattiesburg Police Department  
300 Klondyke Street  
Hattiesburg, MS 39401

**Ref:** Assistant Chief Eugene Frank Misenhelter's Service Weapon

Dear Chief Parker,

I am writing this letter to ask you to allow the *Hattiesburg Police Department's Benevolent Association* to purchase the service weapon (Asset ID 17294, Glock 22, Serial # MUY552) of Assistant Chief Frank Misenhelter for the sum of One Hundred Dollars (\$100.00). After the purchase of the weapon, it will be given to Assistant Chief Frank Misenhelter upon his retirement. Mississippi State Law (*MS statute 45-9-131*) allows the issued sidearm of a law enforcement officer to be purchased by the retiring officer.

Should you need any additional information, please don't hesitate to contact me.

Sincerely,

Detective Gerald Essary, Jr., President  
*Hattiesburg Police Department's Benevolent Assoc.*  
601-545-4971 *Phone*  
601-545-4937 *Fax*



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-576**

**File ID:** 2018-576

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Lamar Rutland

**File Created:** 06/22/2018

**Brief Title:** Authorize Mayor to execute in duplicate Contract for Professional Services with 4D Solutions, Inc. to expedite completion of Project Worksheets associated with DR 4101 (2013 Tornado Event).

**Final Action:** 07/03/2018

**Minute Book Number:** MB2018-169

**Title:**

Authorize Mayor to execute in duplicate Contract for Professional Services with 4D Solutions, Inc. to expedite completion of Project Worksheets associated with DR 4101 (2013 Tornado Event).

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VI.-4

**Sponsors:**

**Enactment Date:**

**Attachments:** HATTIESBURG4DPROFSVCV3 6-12-18, Executed - HATTIESBURG 4D Solutions for Professional Services

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Sharon Waits

**Effective Date:**

## History of Legislative File

| Ver-<br>sion: | Acting Body:                                                                                                                                                                                                                                                                                         | Date:      | Action:                                                                                                                               | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------|----------|-----------|-----------------|---------|
| 1             | City Council                                                                                                                                                                                                                                                                                         | 07/03/2018 | Authorize                                                                                                                             |          |           |                 | Pass    |
|               | <b>Action Text:</b> A MOTION was made by Council Member George and seconded by Council Member Brown to Authorize Mayor to execute in duplicate Contract for Professional Services with 4D Solutions, Inc. to expedite completion of Project Worksheets associated with DR 4101 (2013 Tornado Event). |            |                                                                                                                                       |          |           |                 |         |
|               | There being no discussion, the Motion received the affirmative vote of the Council as follows:                                                                                                                                                                                                       |            |                                                                                                                                       |          |           |                 |         |
|               | Yeas: 5 - George, Delgado, Carroll, Dryden and Brown                                                                                                                                                                                                                                                 |            |                                                                                                                                       |          |           |                 |         |
|               | Nays: 0                                                                                                                                                                                                                                                                                              |            |                                                                                                                                       |          |           |                 |         |
|               |                                                                                                                                                                                                                                                                                                      | Yea: 5     | Council Member George<br>Council Member Delgado<br>Council President Carroll<br>Council Vice President Dryden<br>Council Member Brown |          |           |                 |         |

**Text of Legislative File 2018-576**

**Title**

Authorize Mayor to execute in duplicate Contract for Professional Services with 4D Solutions, Inc. to expedite completion of Project Worksheets associated with DR 4101 (2013 Tornado Event).

**Summary**

Authorize Mayor to execute in duplicate Contract for Professional Services with 4D Solutions, Inc. to expedite completion of Project Worksheets associated with DR 4101 (2013 Tornado Event).



**STATE OF MISSISSIPPI  
CITY OF HATTIESBURG  
CONTRACT FOR PROFESSIONAL SERVICES  
#51418**

May 14, 2018

1. **Parties.** This contract is made and entered into by and between the City of Hattiesburg MS (City) and 4D Solutions, Inc (4D) a Mississippi Company.
2. **Purpose.** City hereby engages the services of 4D Solutions, Inc, and 4D hereby agrees to render those certain services described in Paragraph 3, "Scope of Services," below.
3. **Scope of Services.** The intent of this contract is assist the City with completing FEMA Project Worksheets associated with DR 4101.

**Description of Services:**

1. Assist with the completion of PW 59.
2. Assist with the completion of PW 75.
3. Work with the Mississippi Emergency Management Agency and FEMA as needed for corrections and updates.

**Deliverables upon activation:**

1. 4D will provide experienced personnel to complete the PW's.
2. 4D will represent Hattiesburg for required follow through with MEMA/FEMA.

**City Responsibilities:**

1. City will assign a single Point of Contact for the Project.
2. City will provide required documentation to complete the PW's in a timely manner.

4. **Period of Performance.** The period of performance of services under this Contract shall be for six months beginning on May 18<sup>th</sup> 2018 and end November 30, 2018. Should City and 4D agree to extend this Agreement both parties shall agree in writing. Notice of any cancellation must be sent to 4D in writing at least fifteen (15) days prior to the effective termination date.
5. **Consideration and Method of Payment.** Consulting upon activation will require Hourly rates. Rates for 2018 (May 18, 2018 to November 30, 2018) are as follows:

**POSITIONS**

Project Manager/Planner  
Legal Consultant  
Clerk

**HOURLY RATES**

\$ 75.00/hour  
\$135.00/hour  
\$ 33.00/hour

**Expenses:**

Excessive trips/mileage beyond 50 miles from Hattiesburg \$At Current IRS Rate

Copies, Photo Documentation, GIS Printing, Scanning      \$At Cost + 10%

**This Project shall not exceed \$9,000.00 without approval of the City of Hattiesburg.**

4D will bill Hattiesburg monthly for Services. The City of Hattiesburg will pay 4D within 45 days after receipt of invoice.

Should City not desire to continue to utilize the services of 4D, then City shall notify the 4D in writing 15 days in advance, upon cancellation and City shall be under no further obligation under this contract.

6. **Relationship of Parties.** It is expressly understood and agreed that City enters into this Contract with 4D based on the purchase of Professional Services and not based on an employer-employee relationship. For all purposes under this Contract:

A. 4D represents that it has, or will secure, at its own expense, applicable personnel who shall be qualified to perform the duties required to be performed under this Contract. Such personnel shall not be deemed in any way, directly or indirectly, expressly, or by implication, to be employees of City without approval of the City

B. Any person or subcontractor employed by 4D to perform the services hereunder shall be the responsibility of 4D, who shall have the sole right to hire and discharge its employee.

C. It is further understood that the consideration expressed herein constitutes full and complete compensation for all services and performances hereunder, and that any sum due and payable to 4D for services actually rendered shall be so paid with no withholdings or deductions being made by City for any purpose except as provided in Paragraph 7 herein.

4D shall pay, when due, all salaries and wages of its employees, and it accepts exclusive responsibility for the payment of and shall pay any Tax and any withholdings that may be required.

7. **Termination for Cause.** If, through any cause, 4D shall fail to fulfill in a timely and proper manner, as determined by City, its obligations under this Contract, or if 4D shall violate any of the covenants, agreements, or stipulations of this Contract, City shall thereupon have the right to terminate the Contract by giving written notice to 4D of such termination and specifying the effective date thereof, at least fifteen (15) days before the effective date of such termination. Satisfactory work shall be determined by City in its sole discretion. In the event of such termination, 4D shall be entitled to receive just and equitable compensation for satisfactory work completed on documents, services or materials collected and/or prepared by 4D in connection with this Contract as of the date of receipt of Notification of Termination. Such compensation shall be based upon the fees set forth in Paragraph 5.

Notwithstanding the above, 4D shall not be relieved of liability to City for damages sustained by City by virtue of any breach of this Contract by 4D and City may withhold

any payments to 4D for the purpose of set off until such times as the exact amount of damages due to City from 4D are determined.

8. **Termination for Convenience.** Either City or 4D may terminate this Contract at any time by giving written notice to the other party of such termination and specifying the effective date thereof, at least fifteen (15) days before the effective date of such termination. 4D shall be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of 4D covered by the Contract, less payments previously made.
9. **Ownership of Documents and Work Product.** Except as otherwise required by law with regard to the confidentiality of patent records, all documents, notes, programs, books, data bases (and all applications thereof), files, reports, studies, unfinished documents and/or other materials collected or prepared by 4D specifically at the request and solely for the use of City, which information is not of the sort that would be compiled in the ordinary course and scope of 4D regular business activities, shall be owned by City upon completion or termination of this agreement. City reserves the rights to any and all information and/or materials collected on its behalf.

4D assures that any and all information regarding clients of City will be kept strictly confidential pursuant to current state and local requirements and will become the property of City. 4D further assures that City shall have full access to all information collected.

4D is prohibited from use of the above described information and/or materials without the express written approval of City.

10. **Agreements by 4D Solutions, Inc.**

Subcontractors. It is understood and agreed that 4D may enter into agreements or subcontracts with qualified entities, to perform the obligations contained in this agreement. Any such contracts, subcontracts or agreements shall include or incorporate by reference, the terms and conditions of this agreement. 4D shall bear full responsibility for the performance of any and all contractors and subcontractors.

Subcontractor Liability. In any agreement or subcontract for the performance of any service or services under this agreement, 4D shall require a contractor or subcontractor to indemnify, release, save and hold harmless City from and against all claims, demands, liabilities, suits, damages and costs of every kind and nature whatsoever, including court costs and attorney's fees arising under this agreement.

4D shall require any and all licensed professionals either employed by or under a contract/subcontract to 4D to perform services under this Contract, shall be fully responsible and liable to 4D and City for work performed or any omission by any associates, employees and/or consultants. Proof of General Liability and Errors and Omissions shall be provided to the City upon request. 4D shall require that any such licensed professional (example: Engineers, Environmentalist, etc.) carry errors and omissions insurance coverage in an amount equal to at least one million (\$1,000,000.00), to include all associates, employees and/or consultants, and that the cost thereof shall be borne by the licensed professional. Such errors and omissions coverage shall remain in full force and effect for the period of time that the professional or subcontractor is responsible

for performance of any part of this Contract.

11. **Record Retention and Access to Records.** 4D shall maintain and shall make available to City, any state agency authorized to audit City, the federal grantor agency, the Comptroller General of the United States or any of their duly authorized representatives, financial records, supporting documents, statistical records and all other records pertinent to the services performed under this Contract. These records shall be maintained for at least three (3) years; however, if any litigation or other legal action, by or on behalf of the State or Federal Government has begun that is not completed at the end of the three (3) year period, or if audit findings, litigation or other legal action has not been resolved at the end of the three (3) year period, the records shall be retained until resolution.
12. **Modification or Amendment.** Modifications, changes or amendments to this Contract may be made upon mutual agreement of the parties, in writing and signed by the parties hereto.
13. **Assignment.** 4D may not assign or otherwise transfer its obligations or duties under this Contract without the prior written consent of City. Any attempt to assign or transfer the obligations and duties hereunder without such consent shall be void.
14. **Waiver.** Failure of either party hereto to insist upon strict compliance with any of the terms, covenants and conditions hereof shall not be deemed a waiver or relinquishment of any similar right or power there under at any subsequent time or of any other provision hereof, nor shall it be construed to be a modification of the terms of this Contract.
15. **Funding.** It is expressly understood by the parties hereto that the fulfillment of the obligations of City under this agreement is conditioned upon the availability of City funds. In the event that funds are insufficient or otherwise unavailable to satisfy payments due under this agreement, City shall satisfy all payment request of completed service by the 4D and shall notify 4D to cease work.
16. **Indemnification.** 4D agrees to indemnify, defend, save and hold harmless City from and against all claims, demands, liabilities, suits, damages and costs of every kind and nature whatsoever, including court costs and attorney's fees, arising out of or caused by 4D, its agents, subcontractors, or employees in the performance of this Contract.
17. **Governing Law and Legal Remedies.** This Contract shall be construed and governed in accordance with the laws of the State of Mississippi. 4D expressly agrees that under no circumstances shall Hattiesburg be obligated to pay an attorney's fee or the cost of legal action to the 4D.  
  
4D and City agree that the courts of general jurisdiction of City, and appropriate appellate courts therefrom, shall have exclusive venue and jurisdiction for the litigation and resolution of any dispute regarding this Contract.
18. **Severability.** If any term or provision of this Contract is prohibited by the laws of the State of Mississippi or declared invalid or void by a court of competent jurisdiction, the remainder of this Contract shall not be affected thereby and each term and provision of this Contract shall be valid and enforceable to the fullest extent permitted by law.

19. **Compliance with Laws.** 4D shall comply with all applicable laws, regulations, policies and procedures and Grant requirements (if applicable) of the United States of America or any agency thereof, the State of Mississippi or any agency thereof and any local governments or political subdivisions that may affect the performance of services under this Contract. Specifically, but not limited to, 4D shall not discriminate against any employee nor shall any party be subject to discrimination in the performance of this Contract because of race, color, sex, age, religion, national origin or disability.
20. **Notice.** Any notice required or permitted to be given under this Contract shall be in writing and sent by United States Certified Mail, Return Receipt Requested, to the party to whom the notice should be given at the address set forth following:

HATTIESBURG MISSISSIPPI

Toby Barker  
Mayor  
200 Forrest Street  
Hattiesburg, MS 39401

4D SOLUTIONS, INC:

Darlene Shows, VP  
4D Solutions, Inc  
PO Box 331  
211 South Front Street  
Ellisville, MS 39437

The parties agree to promptly notify each other of any change of address.

IN WITNESS WHEREOF, this contract has been entered into and executed by the parties hereto in duplicate originals.

Witness my signature this **3rd** day of **July, 2018.**

**HATTIESBURG**

By: \_\_\_\_\_  
Toby Barker  
Mayor

Witness my signature this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**4D SOLUTIONS, INC**

By: \_\_\_\_\_  
Darlene Shows  
Vice President

**STATE OF MISSISSIPPI  
CITY OF HATTIESBURG  
CONTRACT FOR PROFESSIONAL SERVICES  
#51418**

May 14, 2018

1. **Parties.** This contract is made and entered into by and between the City of Hattiesburg MS (City) and 4D Solutions, Inc (4D) a Mississippi Company.
2. **Purpose.** City hereby engages the services of 4D Solutions, Inc, and 4D hereby agrees to render those certain services described in Paragraph 3, "Scope of Services," below.
3. **Scope of Services.** The intent of this contract is assist the City with completing FEMA Project Worksheets associated with DR 4101.

**Description of Services:**

1. Assist with the completion of PW 59.
2. Assist with the completion of PW 75.
3. Work with the Mississippi Emergency Management Agency and FEMA as needed for corrections and updates.

**Deliverables upon activation:**

1. 4D will provide experienced personnel to complete the PW's.
2. 4D will represent Hattiesburg for required follow through with MEMA/FEMA.

**City Responsibilities:**

1. City will assign a single Point of Contact for the Project.
2. City will provide required documentation to complete the PW's in a timely manner.

4. **Period of Performance.** The period of performance of services under this Contract shall be for six months beginning on May 18<sup>th</sup> 2018 and end November 30, 2018. Should City and 4D agree to extend this Agreement both parties shall agree in writing. Notice of any cancellation must be sent to 4D in writing at least fifteen (15) days prior to the effective termination date.
5. **Consideration and Method of Payment.** Consulting upon activation will require Hourly rates. Rates for 2018 (May 18, 2018 to November 30, 2018) are as follows:

| <b>POSITIONS</b>        | <b>HOURLY RATES</b> |
|-------------------------|---------------------|
| Project Manager/Planner | \$ 75.00/hour       |
| Legal Consultant        | \$135.00/hour       |
| Clerk                   | \$ 33.00/hour       |

**Expenses:**

Excessive trips/mileage beyond 50 miles from Hattiesburg \$At Current IRS Rate

Copies, Photo Documentation, GIS Printing, Scanning      \$At Cost + 10%

**This Project shall not exceed \$9,000.00 without approval of the City of Hattiesburg.**

4D will bill Hattiesburg monthly for Services. The City of Hattiesburg will pay 4D within 45 days after receipt of invoice.

Should City not desire to continue to utilize the services of 4D, then City shall notify the 4D in writing 15 days in advance, upon cancellation and City shall be under no further obligation under this contract.

6. **Relationship of Parties.** It is expressly understood and agreed that City enters into this Contract with 4D based on the purchase of Professional Services and not based on an employer-employee relationship. For all purposes under this Contract:

A. 4D represents that it has, or will secure, at its own expense, applicable personnel who shall be qualified to perform the duties required to be performed under this Contract. Such personnel shall not be deemed in any way, directly or indirectly, expressly, or by implication, to be employees of City without approval of the City

B. Any person or subcontractor employed by 4D to perform the services hereunder shall be the responsibility of 4D, who shall have the sole right to hire and discharge its employee.

C. It is further understood that the consideration expressed herein constitutes full and complete compensation for all services and performances hereunder, and that any sum due and payable to 4D for services actually rendered shall be so paid with no withholdings or deductions being made by City for any purpose except as provided in Paragraph 7 herein.

4D shall pay, when due, all salaries and wages of its employees, and it accepts exclusive responsibility for the payment of and shall pay any Tax and any withholdings that may be required.

7. **Termination for Cause.** If, through any cause, 4D shall fail to fulfill in a timely and proper manner, as determined by City, its obligations under this Contract, or if 4D shall violate any of the covenants, agreements, or stipulations of this Contract, City shall thereupon have the right to terminate the Contract by giving written notice to 4D of such termination and specifying the effective date thereof, at least fifteen (15) days before the effective date of such termination. Satisfactory work shall be determined by City in its sole discretion. In the event of such termination, 4D shall be entitled to receive just and equitable compensation for satisfactory work completed on documents, services or materials collected and/or prepared by 4D in connection with this Contract as of the date of receipt of Notification of Termination. Such compensation shall be based upon the fees set forth in Paragraph 5.

Notwithstanding the above, 4D shall not be relieved of liability to City for damages sustained by City by virtue of any breach of this Contract by 4D and City may withhold



any payments to 4D for the purpose of set off until such times as the exact amount of damages due to City from 4D are determined.

8. **Termination for Convenience.** Either City or 4D may terminate this Contract at any time by giving written notice to the other party of such termination and specifying the effective date thereof, at least fifteen (15) days before the effective date of such termination. 4D shall be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of 4D covered by the Contract, less payments previously made.

9. **Ownership of Documents and Work Product.** Except as otherwise required by law with regard to the confidentiality of patent records, all documents, notes, programs, books, data bases (and all applications thereof), files, reports, studies, unfinished documents and/or other materials collected or prepared by 4D specifically at the request and solely for the use of City, which information is not of the sort that would be compiled in the ordinary course and scope of 4D regular business activities, shall be owned by City upon completion or termination of this agreement. City reserves the rights to any and all information and/or materials collected on its behalf.

4D assures that any and all information regarding clients of City will be kept strictly confidential pursuant to current state and local requirements and will become the property of City. 4D further assures that City shall have full access to all information collected.

4D is prohibited from use of the above described information and/or materials without the express written approval of City.

10. **Agreements by 4D Solutions, Inc.**

Subcontractors. It is understood and agreed that 4D may enter into agreements or subcontracts with qualified entities, to perform the obligations contained in this agreement. Any such contracts, subcontracts or agreements shall include or incorporate by reference, the terms and conditions of this agreement. 4D shall bear full responsibility for the performance of any and all contractors and subcontractors.

Subcontractor Liability. In any agreement or subcontract for the performance of any service or services under this agreement, 4D shall require a contractor or subcontractor to indemnify, release, save and hold harmless City from and against all claims, demands, liabilities, suits, damages and costs of every kind and nature whatsoever, including court costs and attorney's fees arising under this agreement.

4D shall require any and all licensed professionals either employed by or under a contract/subcontract to 4D to perform services under this Contract, shall be fully responsible and liable to 4D and City for work performed or any omission by any associates, employees and/or consultants. Proof of General Liability and Errors and Omissions shall be provided to the City upon request. 4D shall require that any such licensed professional (example: Engineers, Environmentalist, etc.) carry errors and omissions insurance coverage in an amount equal to at least one million (\$1,000,000.00), to include all associates, employees and/or consultants, and that the cost thereof shall be borne by the licensed professional. Such errors and omissions coverage shall remain in full force and effect for the period of time that the professional or subcontractor is responsible

for performance of any part of this Contract.

11. **Record Retention and Access to Records.** 4D shall maintain and shall make available to City, any state agency authorized to audit City, the federal grantor agency, the Comptroller General of the United States or any of their duly authorized representatives, financial records, supporting documents, statistical records and all other records pertinent to the services performed under this Contract. These records shall be maintained for at least three (3) years; however, if any litigation or other legal action, by or on behalf of the State or Federal Government has begun that is not completed at the end of the three (3) year period, or if audit findings, litigation or other legal action has not been resolved at the end of the three (3) year period, the records shall be retained until resolution.
12. **Modification or Amendment.** Modifications, changes or amendments to this Contract may be made upon mutual agreement of the parties, in writing and signed by the parties hereto.
13. **Assignment.** 4D may not assign or otherwise transfer its obligations or duties under this Contract without the prior written consent of City. Any attempt to assign or transfer the obligations and duties hereunder without such consent shall be void.
14. **Waiver.** Failure of either party hereto to insist upon strict compliance with any of the terms, covenants and conditions hereof shall not be deemed a waiver or relinquishment of any similar right or power there under at any subsequent time or of any other provision hereof, nor shall it be construed to be a modification of the terms of this Contract.
15. **Funding.** It is expressly understood by the parties hereto that the fulfillment of the obligations of City under this agreement is conditioned upon the availability of City funds. In the event that funds are insufficient or otherwise unavailable to satisfy payments due under this agreement, City shall satisfy all payment request of completed service by the 4D and shall notify 4D to cease work.
16. **Indemnification.** 4D agrees to indemnify, defend, save and hold harmless City from and against all claims, demands, liabilities, suits, damages and costs of every kind and nature whatsoever, including court costs and attorney's fees, arising out of or caused by 4D, its agents, subcontractors, or employees in the performance of this Contract.
17. **Governing Law and Legal Remedies.** This Contract shall be construed and governed in accordance with the laws of the State of Mississippi. 4D expressly agrees that under no circumstances shall Hattiesburg be obligated to pay an attorney's fee or the cost of legal action to the 4D.

4D and City agree that the courts of general jurisdiction of City, and appropriate appellate courts therefrom, shall have exclusive venue and jurisdiction for the litigation and resolution of any dispute regarding this Contract.

18. **Severability.** If any term or provision of this Contract is prohibited by the laws of the State of Mississippi or declared invalid or void by a court of competent jurisdiction, the remainder of this Contract shall not be affected thereby and each term and provision of this Contract shall be valid and enforceable to the fullest extent permitted by law.

19. **Compliance with Laws.** 4D shall comply with all applicable laws, regulations, policies and procedures and Grant requirements (if applicable) of the United States of America or any agency thereof, the State of Mississippi or any agency thereof and any local governments or political subdivisions that may affect the performance of services under this Contract. Specifically, but not limited to, 4D shall not discriminate against any employee nor shall any party be subject to discrimination in the performance of this Contract because of race, color, sex, age, religion, national origin or disability.
20. **Notice.** Any notice required or permitted to be given under this Contract shall be in writing and sent by United States Certified Mail, Return Receipt Requested, to the party to whom the notice should be given at the address set forth following:

HATTIESBURG MISSISSIPPI

Toby Barker  
Mayor  
200 Forrest Street  
Hattiesburg, MS 39401

4D SOLUTIONS, INC:

Darlene Shows, VP  
4D Solutions, Inc  
PO Box 331  
211 South Front Street  
Ellisville, MS 39437

The parties agree to promptly notify each other of any change of address.

IN WITNESS WHEREOF, this contract has been entered into and executed by the parties hereto in duplicate originals.

Witness my signature this 3rd day of July, 2018.

**HATTIESBURG**

By:

  
\_\_\_\_\_  
Toby Barker  
Mayor

Witness my signature this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

**4D SOLUTIONS, INC**

By:

\_\_\_\_\_  
Darlene Shows  
Vice President



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-563**

**File ID:** 2018-563

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:**

**File Created:** 06/20/2018

**Brief Title:** Memorandum of Agreement between the City of Hattiesburg and Pearl River Community College for CDL training to earn a Class A Certification. (Commercial Truck Driving)

**Final Action:** 07/03/2018

**Minute Book Number:** MB2018-169

**Title:**

Authorize Mayor to execute Memorandum of Agreement between the City of Hattiesburg and Pear River Community College to train existing city employees in CDL training to earn a class \*A\* certification in commercial truck driving, at no cost to the city.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VI.-5

**Sponsors:**

**Enactment Date:**

**Attachments:** MOA-PRCC, Executed - MOA with COH and PRCC for CDL

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:**

**Effective Date:**

## History of Legislative File

| Ver-<br>sion:                                                                                                                                                                                                                                                                                                                                                               | Acting Body: | Date:      | Action:   | Sent To: | Due Date: | Return<br>Date: | Result: |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|-----------|----------|-----------|-----------------|---------|
| 1                                                                                                                                                                                                                                                                                                                                                                           | City Council | 07/03/2018 | Authorize |          |           |                 | Pass    |
| <b>Action Text:</b> A MOTION was made by Council Vice President Dryden and seconded by Council Member George to Authorize Mayor to execute Memorandum of Agreement between the City of Hattiesburg and Pear River Community College to train existing city employees in CDL training to earn a class *A* certification in commercial truck driving, at no cost to the city. |              |            |           |          |           |                 |         |
| There being no discussion, the Motion received the affirmative vote of the Council as follows:                                                                                                                                                                                                                                                                              |              |            |           |          |           |                 |         |
| Yeas: 5 - George, Delgado, Carroll, Dryden and Brown                                                                                                                                                                                                                                                                                                                        |              |            |           |          |           |                 |         |
| Nays: 0                                                                                                                                                                                                                                                                                                                                                                     |              |            |           |          |           |                 |         |

Yea: 5 Council Member George  
Council Member Delgado  
Council President Carroll  
Council Vice President Dryden  
Council Member Brown

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## **Text of Legislative File 2018-563**

### **Title**

Authorize Mayor to execute Memorandum of Agreement between the City of Hattiesburg and Pear River Community College to train existing city employees in CDL training to earn a class \*A\* certification in commercial truck driving, at no cost to the city.

### **Summary**

Memorandum of Agreement to training city employees in CDL training to earn Class \*A\* certification. (commercial truck driving).

### **Budget Information**

### **Expenditure Type**

### **Purchasing Item**

### **Publication Information**

# MEMORANDUM OF AGREEMENT

Project Number: 2018-214-066

## Project Justification and the Need for Training:

The purpose of this project is to partner with the City of Hattiesburg to train existing employees.

## Description of the Company and Training Objectives:

City of Hattiesburg employees will be selected to participate in CDL training to earn Class A certification. (Commercial Truck Driving)

## Company Will:

- 1) Inform PRCC of training objectives.
- 2) Coordinate training with PRCC administrative staff.
- 3) Select internal employees to participate.
- 4) Designate and provide off-campus location for skills course associated with training.
- 5) Approve location for classroom component of training to be held at the Lowery A. Woodall Advanced Technology Center.
- 6) Monitor the training and communicate any changes or trainees not able to participate with PRCC staff.
- 7) Complete required paper work supplied by PRCC. (Student data sheet and sign in sheets.)
- 8) Ensure training supports the five trainee minimum.
- 9) Will be in compliance with E-Verify as specified in the Mississippi Employment Protection Act.

## College Will:

- 1) Assist in identifying training objectives, certifications, and class schedules.
- 2) Maintain all records and manage administrative associated with project.
- 3) Provide Commerical Truck Driving instructor.
- 4) Provide classroom space for training.
- 5) Assure project is cost-effective and executed in conformance with the provisions of the MOU and all other MCCB guidelines.
- 6) Will be in compliance with E-Verify as specified in the Mississippi Employment Protection Act.

## State Board for Community and Junior Colleges Will:

1. Approve and monitor the training program as per MCCB guidelines.
2. Provide technical assistance in program development.
3. Provide training funds as described in the budget proposal.
4. Pay within 45 days of reimbursement report.
5. Reimburse Pearl River Community College for funds expended according to approved project budget.
6. Monitor the project through documentation maintained by the college.

| SCHOOL     |  | COMPANY    |  |
|------------|--|------------|--|
| Signature: |  | Signature: |  |
| Name:      |  | Name:      |  |
| Title:     |  | Title:     |  |
| Date:      |  | Date:      |  |

# MEMORANDUM OF AGREEMENT

Project Number: 2018-214-066

## Project Justification and the Need for Training:

The purpose of this project is to partner with the City of Hattiesburg to train existing employees.

## Description of the Company and Training Objectives:

City of Hattiesburg employees will be selected to participate in CDL training to earn Class A certification. (Commercial Truck Driving)

## Company Will:

- 1) Inform PRCC of training objectives.
- 2) Coordinate training with PRCC administrative staff.
- 3) Select internal employees to participate.
- 4) Designate and provide off-campus location for skills course associated with training.
- 5) Approve location for classroom component of training to be held at the Lowery A. Woodall Advanced Technology Center.
- 6) Monitor the training and communicate any changes or trainees not able to participate with PRCC staff.
- 7) Complete required paper work supplied by PRCC. (Student data sheet and sign in sheets.)
- 8) Ensure training supports the five trainee minimum.
- 9) Will be in compliance with E-Verify as specified in the Mississippi Employment Protection Act.

## College Will:

- 1) Assist in identifying training objectives, certifications, and class schedules.
- 2) Maintain all records and manage administrative associated with project.
- 3) Provide Commerical Truck Driving instructor.
- 4) Provide classroom space for training.
- 5) Assure project is cost-effective and executed in conformance with the provisions of the MOU and all other MCCB guidelines.
- 6) Will be in compliance with E-Verify as specified in the Mississippi Employment Protection Act.

## State Board for Community and Junior Colleges Will:

1. Approve and monitor the training program as per MCCB guidelines.
2. Provide technical assistance in program development.
3. Provide training funds as described in the budget proposal.
4. Pay within 45 days of reimbursement report.
5. Reimburse Pearl River Community College for funds expended according to approved project budget.
6. Monitor the project through documentation maintained by the college.

| SCHOOL     |  | COMPANY    |                                                                                      |
|------------|--|------------|--------------------------------------------------------------------------------------|
| Signature: |  | Signature: |  |
| Name:      |  | Name:      | Toby Barker                                                                          |
| Title:     |  | Title:     | Mayor                                                                                |
| Date:      |  | Date:      | 7-3-18                                                                               |





# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-566**

**File ID:** 2018-566

**Type:** Regular Agenda Item

**Status:** Approved

**Version:** 2

**Reference:**

**In Control:** City Council

**Requester:** Andrew Ellard

**File Created:** 06/21/2018

**Brief Title:** Supplemental Agreement No.1 for the Urban  
Development Software Project

**Final Action:** 07/03/2018

**Minute Book Number:** MB2018-169

**Title:** Approve and authorize Mayor to execute Amendment No.1 to the agreement with Tyler Technologies, Inc. for the upgrade of EnerGov software used by the Department of Urban Development.

### Notes:

**Agenda Date:** 07/03/2018

### Indexes:

**Agenda Number:** VI.-6

### Sponsors:

**Enactment Date:**

**Attachments:** Supplemental Agreement No 1 Energov Software  
Upgrade Project, Executed - Supplemental Agreement  
No 1 Energov Software Upgrade Project

**Enactment Number:**

### Contact:

**Meeting Date:** 07/03/2018

**Drafter:** Armendia Esters

**Effective Date:**

## History of Legislative File

| Ver-<br>sion:                                                                                                                                                                                                                                                                                         | Acting Body: | Date:      | Action:                  | Sent To: | Due Date: | Return<br>Date: | Result: |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|--------------------------|----------|-----------|-----------------|---------|
| 2                                                                                                                                                                                                                                                                                                     | City Council | 07/03/2018 | Approve and<br>Authorize |          |           |                 | Pass    |
| <b>Action Text:</b> A MOTION was made by Council Member George and seconded by Council Vice President Dryden to Approve and authorize Mayor to execute Amendment No.1 to the agreement with Tyler Technologies, Inc. for the upgrade of EnerGov software used by the Department of Urban Development. |              |            |                          |          |           |                 |         |
| There being no discussion, the Motion received the affirmative vote of the Council as follows:                                                                                                                                                                                                        |              |            |                          |          |           |                 |         |
| Yeas: 5 - George, Delgado, Carroll, Dryden and Brown                                                                                                                                                                                                                                                  |              |            |                          |          |           |                 |         |
| Nays: 0                                                                                                                                                                                                                                                                                               |              |            |                          |          |           |                 |         |
| Yea: 5 Council Member George<br>Council Member Delgado<br>Council President Carroll<br>Council Vice President Dryden<br>Council Member Brown                                                                                                                                                          |              |            |                          |          |           |                 |         |

**Text of Legislative File 2018-566**

Title

Approve and authorize Mayor to execute Amendment No.1 to the agreement with Tyler Technologies, Inc. for the upgrade of EnerGov software used by the Department of Urban Development.

Summary

Supplemental Agreement No.1 for the Urban Development Software Project

Budget Information

\$1,700.00

Expenditure Type

Regular Expenditure

Purchasing Item

Publication Information

## **Energov Software Upgrade Project**

### **AMENDMENT NO. 1 TO AGREEMENT BETWEEN CUSTOMER AND CONSULTANT**

This Amendment No: 1 is made and entered into this 3rd day of July, 2018 to the Agreement between Tyler Technologies (“CONSULTANT”) and THE CITY OF HATTIESBURG (“CUSTOMER”) dated April 17, 2018 (“the Agreement”).

WHEREAS, CONSULTANT and CUSTOMER entered into the Agreement for the ENERGOV SOFTWARE UPGRADE PROJECT, and

WHEREAS, the parties desire to amend the Agreement so as to amend the scope of work, time periods of performance and payment; and

WHEREAS, the Agreement provides that such amendments be expressed in writing and signed by the parties.

NOW THEREFORE, in consideration of the mutual understandings and Agreements contained herein, the parties agree to amend the agreement as follows:

1. The Basic Services of CONSULTANT as described in the Agreement are amended and supplemented as follows:
  - a. The CONSULTANT will perform the Configuration/Assess & Define service for the project at the site of the CUSTOMER per Change Request Number TYL-2018-01754.
2. The responsibilities of the CUSTOMER as described in the Agreement are amended and supplemented as follows:
  - a. Not Applicable
3. The time period for the performance of CONSULTANT’s services as set forth in the Agreement are amended and supplemented as follows:
  - One (1) week to complete assessment and verification of configuration request with the CUSTOMER.

4. The payment for services rendered by CONSULTANT shall be set forth below:

Tyler Technologies, Inc. shall provide the services provided in the Agreement and herein under Amendment No.1 for an addition lump sum fee of \$1,700.00 for onsite trip.

The new total contract fee is \$28,825.00 itemized below:

|                                                        |             |
|--------------------------------------------------------|-------------|
| Original Contract Amount-EnerGov Professional Services | \$27,125.00 |
| SA #1 (Add Configuration Onsite Service)               | \$1,700.00  |
| New Contract Fee                                       | \$28,825.00 |

5. Except as herein modified, all terms and conditions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this amendment on the date indicated above for the purpose herein expressed.

CLIENT:

CONSULTANT:

---

By: Toby Barker  
Title: Mayor, City of Hattiesburg  
Date: 7-3-18

---

By: Tejas Patel  
Title: Project Manager  
Date:

Address for giving notices:

Address for giving notices:

Andrew Ellard  
Department of Urban Development  
City of Hattiesburg  
P.O. Box 1898  
Hattiesburg, MS 39403-1898  
Telephone: 601.545.4675  
Email: aellard@hattiesburgms.com

Tejas Patel  
EnerGov-Tyler Technologies, Inc.  
2160 Satellite Blvd NW #300  
Duluth, GA 30097  
Telephone: 888.355.1093  
ext. 763302  
Email: tejas.patel@tylertech.com

**Energov Software Upgrade Project**

**AMENDMENT NO. 1  
TO AGREEMENT  
BETWEEN  
CUSTOMER AND CONSULTANT**

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|                                                        |             |
|--------------------------------------------------------|-------------|
| Original Contract Amount-EnerGov Professional Services | \$27,125.00 |
| SA #1 (Add Configuration Onsite Service)               | \$1,700.00  |
| New Contract Fee                                       | \$28,825.00 |

5. Except as herein modified, all terms and conditions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this amendment on the date indicated above for the purpose herein expressed.

CLIENT:



By: Toby Barker  
Title: Mayor, City of Hattiesburg  
Date: 7-3-18

Address for giving notices:

Andrew Ellard  
Department of Urban Development  
City of Hattiesburg  
P.O. Box 1898  
Hattiesburg, MS 39403-1898  
Telephone: 601.545.4675  
Email: aellard@hattiesburgms.com

CONSULTANT:



By: Tejas Patel  
Title: Project Manager  
Date:

Address for giving notices:

Tejas Patel  
EnerGov-Tyler Technologies, Inc.  
2160 Satellite Blvd NW #300  
Duluth, GA 30097  
Telephone: 888.355.1093  
ext. 763302  
Email: tejas.patel@tylertech.com



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-562**

**File ID:** 2018-562

**Type:** Regular Agenda Item

**Status:** Passed

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Andrew Ellard

**File Created:** 06/20/2018

**Brief Title:** Agreement Admendment and Extension with  
Breakthrough community Services

**Final Action:** 07/03/2018

**Minute Book Number:** MB2018-170

**Title:**

Approve an amendment to the Developer Agreement with Breakthrough Community Services, Inc. (found at MB2017-519) to extend the term of the agreement to July 3, 2019; allowing for the completion of a Rental Rehabilitation activity located at 709 Highland Avenue and authorize the Mayor to execute in triplicate for same. {Entitlement HOME}

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VI.-7

**Sponsors:**

**Enactment Date:**

**Attachments:** Letter from Breakthrough Requesting Agreement  
Extension.pdf, Breakthrough Agreement  
Amendment.pdf

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Clarence Williams

**Effective Date:**

## History of Legislative File

| Ver-<br>sion:                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City Council | 07/03/2018 | Approve |          |           |                 | Pass    |
| <b>Action Text:</b> A MOTION was made by Council Member George and seconded by Council Vice President Dryden to Approve an amendment to the Developer Agreement with Breakthrough Community Services, Inc. (found at MB2017-519) to extend the term of the agreement to July 3, 2019; allowing for the completion of a Rental Rehabilitation activity located at 709 Highland Avenue and authorize the Mayor to execute in triplicate for same. {Entitlement HOME} |              |            |         |          |           |                 |         |
| There being no discussion, the Motion received the affirmative vote of the Council as follows:                                                                                                                                                                                                                                                                                                                                                                     |              |            |         |          |           |                 |         |
| Yeas: 5 - George, Delgado, Carroll, Dryden and Brown                                                                                                                                                                                                                                                                                                                                                                                                               |              |            |         |          |           |                 |         |
| Nays: 0                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |            |         |          |           |                 |         |

Yea: 5 Council Member George  
Council Member Delgado  
Council President Carroll  
Council Vice President Dryden  
Council Member Brown

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**Text of Legislative File 2018-562**

**Title**

Approve an amendment to the Developer Agreement with Breakthrough Community Services, Inc. (found at MB2017-519) to extend the term of the agreement to July 3, 2019; allowing for the completion of a Rental Rehabilitation activity located at 709 Highland Avenue and authorize the Mayor to execute in triplicate for same. {Entitlement HOME}

**Summary**

Agreement amendment and term extension with Breakthrough Community Services.

**Budget Information**

**Expenditure Type**

**Purchasing Item**

**Publication Information**





**BREAKTHROUGH**  
COMMUNITY SERVICES, INC.  
THE HOLY SPIRIT MOVING US TO LIVE

June 8, 2018

City of Hattiesburg  
Department of Urban Development  
Community Development Division  
Attention: Mr. Clarence Williams  
200 Forrest Street  
Hattiesburg, MS 39401

RE: CHDO Acquisition Agreement  
709 Highland Avenue

Dear Mr. Williams,

On behalf of Breakthrough Community Services (BCS), I am requesting an extension of the above referenced CHDO Acquisition Rehab agreement. We require this extension in order to fulfill our obligations as a participating CHDO and provide affordable housing to low income individuals and/or families. The project has been delayed due a lack of eligible contractors; yet recently we held a bid conference and received contractor bids for rehabilitation work specifications.

With the goal of producing a HOME eligible development project, Breakthrough Community Services Inc. is interested in completing the rental development; one (1) housing unit for low-to-moderate income homebuyers, rental, or lease purchase individuals, within the city limits of Forrest County. It is our goal to improve the conditions of the neighborhood by renovating this abandoned house and helping to reinforce and expand the number of residents whom remain and invest in their property.

We would like to request a 6-month extension so that we will have time to fulfil our contract agreement and complete our goal of helping to restore our community. Thank you for considering our request. Please contact me if you need additional information.

Sincerely,

Rev. Arthur L. Siggers  
Executive Director



**BREAKTHROUGH**  
COMMUNITY SERVICES, INC.

*"Breaking the Shackles of Poverty through Service"*

**Project: 709 Highland Avenue**

***Milestone***

***Deadline***

|                                                  |                                    |            |
|--------------------------------------------------|------------------------------------|------------|
| Bid Conference Opening                           | 05/16/18                           | 5/30/18    |
| Bid Packet Opening (Board of Director's Meeting) | Thursday, June 14, 2018 12:30 p.m. |            |
| Award Letter mailed to contractor                | 06/18/2018                         |            |
| Contract Agreement signing                       | 06/19/2018                         |            |
| Secure permits                                   | 06/21/18                           | 06/29/2018 |
| Rehab start date                                 | 07/16/18                           | 9/28/18    |
| Electrical & Plumbing rough-in                   | 07/23/18                           |            |
| Construction 50% completion (estimated)          | 08/31/18                           |            |
| Interior & exterior finishing complete           | 9/10/18                            | 9/21/18    |
| Landscaping complete                             | 9/24/18                            | 9/28/18    |
| Construction complete w/ COO                     | 10/05/18                           |            |
| Marketing beings                                 | 07/31/18                           | 9/28/18    |
| Marketing complete w/ tenant identified          | 10/31/18                           |            |
| Renter occupied                                  | 11/1/18                            |            |

**AGREEMENT AMENDMENT  
FOR  
RENTAL HOUSING DEVELOPMENT  
BETWEEN THE CITY OF HATTIESBURG  
AND BREAKTHROUGH COMMUNITY SERVICES, INC.**

**THIS AGREEMENT**, entered into this **5th day of July, 2017**, by and between the City of Hattiesburg (hereinafter referred to as the "CITY"), and **Breakthrough Community Services, Inc.**, a nonprofit corporation (hereinafter referred to as the "DEVELOPER") whose principal office is located at **1313 Country Club Road, Hattiesburg, MS.**

**Section II – Term of Agreement**

The term of this Agreement shall commence on **July 5, 2017**, and shall end on or before the Project Completion date of **July 3, 2019**, unless terminated earlier as provided for herein. The City will notify Developer of the actual date of completion and the exact date of the expiration of the affordability period, which shall be calculated based on the date of completion. If necessary, Developer shall execute an amendment to this Agreement that extends the affordability restrictions of 24 CFR 92.252 to the exact date of expiration of the affordability period.

Unless amended by mutual written agreement by the Developer and the City, the Developer will perform the described tasks in conformance with schedule below.

| <i><b>Milestone</b></i>                         | <i><b>Deadline</b></i>  |            |
|-------------------------------------------------|-------------------------|------------|
| Bid Conference Opening                          | 05/16/2018              | 05/30/2018 |
| Bid Packet Opening (Board of Directors' Meeting | Thursday, June 14, 2018 |            |
| Award Letter mailed to contractor               | 06/18/2018              |            |
| Contract Agreement signing                      | 06/21/2018              |            |
| Secure permits                                  | 07/16/2018              | 06/29/2018 |
| Rehab start date                                | 07/16/2018              | 09/28/2018 |
| Electrical & Plumbing rough-in                  | 07/23/2018              |            |
| Construction 50% completion (estimated)         | 08/31/2018              |            |
| Interior & exterior finishing complete          | 09/10/2018              | 09/21/2018 |
| Landscaping complete                            | 09/24/2018              | 09/28/18   |

|                                         |            |            |
|-----------------------------------------|------------|------------|
| Construction complete w/ COO            | 10/05/2018 |            |
| Marketing beings                        | 07/31/2018 | 09/28/2018 |
| Marketing complete w/ tenant identified | 10/31/2018 |            |
| Renter occupied                         | 11/01/2018 |            |

**IN WITNESS THEREOF,**

The City of Hattiesburg and the Developer have executed and dated this Amendment to the original agreement.

**CITY**

By: \_\_\_\_\_  
Toby Barker, Mayor

Date: \_\_\_\_\_

Attest: \_\_\_\_\_  
Kermas Eaton  
City Clerk

Date: \_\_\_\_\_

**DEVELOPER**

**Breakthrough Community Services, Inc.**

By: \_\_\_\_\_

Date: \_\_\_\_\_

Attest: \_\_\_\_\_

Date: \_\_\_\_\_



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-577**

**File ID:** 2018-577

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Andrew Ellard

**File Created:** 06/22/2018

**Brief Title:** Housing Rehabilitation Grant Award - 413 South 13th Avenue

**Final Action:** 07/03/2018

**Minute Book Number:** MB2018-170

**Title:**

Rescind Contractor and Owner Agreement and a Housing Rehabilitation Grant Award to Bettye Hill of 413 South 13th Avenue, (File ID: 2018-168, MB2018-29) approved on February 6, 2018 {Entitlement}.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VI.-8

**Sponsors:**

**Enactment Date:**

**Attachments:** Rescind - Contract and Grant Agreement 06.22.18

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Kevin Jordan

**Effective Date:**

## History of Legislative File

| Ver-<br>sion:                                                                                                                                                                                                                                                                                                       | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1                                                                                                                                                                                                                                                                                                                   | City Council | 07/03/2018 | Rescind |          |           |                 | Pass    |
| <b>Action Text:</b> A MOTION was made by Council Vice President Dryden and seconded by Council Member George to Rescind Contractor and Owner Agreement and a Housing Rehabilitation Grant Award to Bettye Hill of 413 South 13th Avenue, (File ID: 2018-168, MB2018-29) approved on February 6, 2018. {Entitlement} |              |            |         |          |           |                 |         |
| There being no discussion, the Motion received the affirmative vote of the Council as follows:                                                                                                                                                                                                                      |              |            |         |          |           |                 |         |
| Yeas: 5 - George, Delgado, Carroll, Dryden and Brown                                                                                                                                                                                                                                                                |              |            |         |          |           |                 |         |
| Nays: 0                                                                                                                                                                                                                                                                                                             |              |            |         |          |           |                 |         |
| Yea: 5 Council Member George<br>Council Member Delgado<br>Council President Carroll<br>Council Vice President Dryden<br>Council Member Brown                                                                                                                                                                        |              |            |         |          |           |                 |         |

**Text of Legislative File 2018-577**

**Title**

Rescind Contractor and Owner Agreement and a Housing Rehabilitation Grant Award to Bettye Hill of 413 South 13th Avenue, (File ID: 2018-168, MB2018-29) approved on February 6, 2018 {Entitlement}.

**Summary**

Rescind Contractor and Owner Agreement and a Housing Rehabilitation Grant Award - Bettye Hill of 413 S. 13th Ave.

**Budget Information**

**Expenditure Type**

**Purchasing Item**

**Publication Information**

**CITY OF HATTIESBURG COMMUNITY DEVELOPMENT**  
**Homeowner Rehabilitation/Reconstruction Program**  
**Project HRRP**

**Contractor & Owner Agreement**

THIS AGREEMENT, made the 6<sup>th</sup> day of February, 2018 and between the City of Hattiesburg Community Development Division (COHCD) Homeowner Rehabilitation/Reconstruction Program (HRRP) and Bettye Hill of 413 South 13<sup>th</sup> Avenue, hereinafter called Owner, and \_\_\_\_\_, with its principal place of business located at \_\_\_\_\_, Hattiesburg, Mississippi \_\_\_\_\_, hereinafter called the Contractor.

**WITNESSETH**

1. **SCOPE OF WORK**

The Contractor shall furnish all labor, materials, tools, supplies, supervision and other services and shall perform all operations necessary and required to satisfactorily complete the work shown on the drawings, work write-up (Exhibit 1), work agreement (Exhibit 2) and described in the specifications and other Contract Documents prepared for the **413 South 13<sup>th</sup> Avenue** Project by COHCD, said work to be performed on the structure(s)/property located at **413 South 13<sup>th</sup> Avenue**, Hattiesburg, Mississippi, all in accordance with terms of the Contract Documents.

2. **TIME OF COMPLETION**

The Owner/COHCD shall issue a written Notice to Proceed within 5 days from the date of the Owner/COHCD signing of this Agreement, accepting the Contractor's bid and proposal, providing the Contractor has obtained the necessary permits and related documents (if needed) and has presented them to the Owner/COHCD. If the Notice to Proceed is not received by the Contractor within this 5 day period, the Contractor may at his option terminate his obligation under this Agreement, provided he has obtained the necessary permits and related documentation within (15) days from the date of the Owner's/COHCD's signing of this Agreement, the Owner/COHCD has the option of terminating the Contract for cause.

The Contractor shall commence working within ten (10) calendar days, as time is of the essence in the completion of this contract, after issuance of the Notice to Proceed, and it is to be completed within sixty (60) working days after the issuance of the Notice to Proceed. **One hundred dollars (\$100.00) per day, as liquidated damages, will be deducted from the final payment for every day project rehabilitation completion exceeds sixty (60) working days.** The Owner/COHCD has the option of terminating the Contract for failure to commence work within the time allowed by the Contract Agreement.

3. **COMPENSATION**

As full consideration for the satisfactory performance by Contractor of this Contract, the Owner/COHCD shall pay to the Contractor the sum of \_\_\_\_\_ ( ) subject to any written additions or deductions provided and incorporated herein, in accordance with the payment provisions of this Contract.



4. CHANGES IN THE WORK

The Owner/COHCD without invalidating the Contract may order Changes in Work consisting of additions, deletions, or modifications, the Contract Sum and the Contract Time being adjusted accordingly. All such Changes in the Work shall be authorized by written Change Order signed by the Owner and COHCD or their duly authorized agent.

The Contract Sum and the Contract Time may be changed by a Change Order. The cost or credit to the Owner/COHCD from a Change in the Work shall be determined by mutual agreement before executing the Work involved.

5. CORRECTION OF WORK

The Contractor shall correct any work that fails to conform to the requirements of the Contract Documents where such failure to conform appears during the progress of the Work, and shall remedy any defects due to faulty materials, equipment or workmanship which appears within a period of one year from the Date of substantial Completion of the Contract or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents. The provisions of this statement apply to Work done by Subcontractors as well as to Work done by direct employees of the Contractor.

6. TERMINATION BY THE OWNER

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provisions of the Contract, the Owner/COHCD may, after seven days written notice to the Contractor and without prejudice to any other remedy they may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor. If the Contractor's workmanship is deficient and he fails to remedy such work within a specified time period, the Owner/COHCD, at their option, may terminate the Contract and take possession of the site and all materials, supplies and equipment incorporated in the work thereon. The Owner/COHCD may finish the Work by whatever method they may deem expedient. If the unpaid balance of the Contract Sum exceeds the expenses of finishing the Work, such excess shall be paid to the Contractor for approved work completed, but if such expense exceeds such unpaid balance, the Contractor shall pay the difference to the Owner/COHCD.

7. PAYMENTS/DRAWS

Payments may be withheld on account of (1) defective Work not remedied, (2) claims filed, (3) failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment, (4) damage to another contractor or (5) unsatisfactory prosecution of the Work of the Contractor.

Final payment shall not be due until the Contractor has delivered to the Owner/COHCD filed lien waivers/releases, indemnifying them against any lien.

The making of final payment shall constitute a waiver of all claims by the Owner/COHCD except those arising from (1) unsettled liens, (2) faulty or defective Work appearing after Substantial Completion, (3) failure of Work to comply with the Requirements of the Contract Documents or (4) terms of any special guarantees required

by the Contract Documents. The acceptance of the final payment shall constitute a wavier of all claims by the Contractor except those preciously made in writing and still unsettled.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

8. ACCEPTANCE AND FINAL PAYMENT

Final payment shall be due thirty (30) days after completion and acceptance of the work, provided the Contract has been satisfactorily performed, subject to the provision of the General Conditions of the Contract.

9. DEED RESTRICTION

There will be deed restriction attached to **413 South 13<sup>th</sup> Avenue** for five (5) years. Homeowner agrees to occupy the rehabilitated home for five (5) years after rehabilitation activities are completed. The homeowner agrees to pay the prorated grant amount and legal fees associated with securing repayment to the City of Hattiesburg in the event the property is sold, transferred or disposed of prior to the expiration of the five (5) year affordability period. **Homeowner acknowledges and agrees that this contract shall be binding on his/hers/their heirs, executors and assigns.**

10. ASSIGNMENT OF CONTRACT

This agreement may not be assigned to any Contractor or Agent of Contractor. IN WITNESS WHEREOF, the parties hereto executed this Agreement the \_\_\_\_\_ day of \_\_\_\_\_, 2018.

\_\_\_\_\_  
Bettye Hill

\_\_\_\_\_  
Date

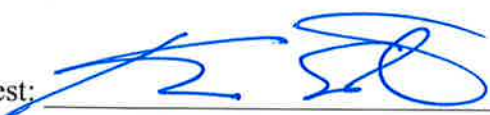
\_\_\_\_\_  
Spouse's Signature

\_\_\_\_\_  
Date

City of Hattiesburg, Mississippi

By:   
Toby Barker, Mayor

Date: February 6, 2018

Attest:   
City Clerk

Contractor

By: \_\_\_\_\_

Date: \_\_\_\_\_

Attest: \_\_\_\_\_

**CITY OF HATTIESBURG  
HOUSING REHABILITATION (25K+)  
GRANT AWARD AGREEMENT**

**General Terms and Conditions**

1. \_\_\_\_ I certify that I currently live in and own the home for which I am accepting repair assistance.
2. \_\_\_\_ I agree to remain in Hattiesburg during the course of the repairs being performed and to make my home accessible between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, unless otherwise arranged.
3. \_\_\_\_ I understand that I am responsible for packing and storage of jewelry, family heirlooms, food, cleaning and other chemicals, lawn equipment, and toiletries for the duration of the repair work as necessary.
4. \_\_\_\_ I understand that the discovery of illegal activities or the use of verbal or physical threats of harm towards City employees, the contractor or his workers will result in an immediate termination of all repair activities.
5. \_\_\_\_ I agree that the City has irrevocable rights and permission to use my name and to use, reproduce, exhibit, copyright and publish photographic images and/or videotaped images of me and/or my home for advertising, trade and/or any other lawful purpose.
6. \_\_\_\_ I agree to attend Homeowner's Maintenance Training and understand that I will be contacted with the dates and times for this mandatory training.
7. \_\_\_\_ I certify that I am not an employee of the City of Hattiesburg, nor do I have an immediate family member who is an elected official of the City of Hattiesburg nor an employee who is responsible for the administration, management and oversight of the program (Community Development Division Staff).
8. \_\_\_\_ I hereby agree to occupy the home to be rehabilitated for a period of not less than five (5) years after completion of the repairs funded under in the Housing Rehabilitation Program. (Homeowner acknowledges and agrees that this agreement shall be binding on his/hers/their heirs, executors and assigns.)
9. \_\_\_\_ I agree to repay the prorated grant amount and legal fees associated with securing repayment to the City should I sale, transfer or dispose of the property prior to the expiration of the five (5) year affordability period.
10. \_\_\_\_ I understand that I cannot apply for another Housing Rehabilitation or Housing Repair Grant within the five (5) year affordability period.
11. \_\_\_\_ I hereby agree to maintain homeowner's insurance and when applicable, flood insurance.
12. \_\_\_\_ I hereby agree to maintain all county and city property taxes as they come due during the affordability period.
13. \_\_\_\_ I hereby agree that the completion of the repairs for which these grant funds are awarded shall constitute a complete work agreement and I will sign all the necessary paperwork to allow for payment to the contractor.

By my signature below I, Betty Hill of 413 South 13<sup>th</sup> Avenue, agree to all the terms of this grant and understand that failure to abide by any of the terms will result in forfeiture of my grant and/or repayment of expended grant funds this the \_\_\_\_ day of \_\_\_\_\_, 2018.

\_\_\_\_\_  
Homeowner's Signature

\_\_\_\_\_  
Spouse's Signature

**GRANT AWARD**

The Homeowner(s), Betty Hill of 413 South 13<sup>th</sup> Avenue, is hereby awarded a Housing Rehabilitation Grant for General Construction costs in an amount not to exceed \$50,000 [excluding 10% allowance for change order/discovery repairs according to the Housing Rehabilitation and Housing Programs Manual Section VIII (E)]. Lead and Asbestos activities have been contracted separately on this the 6<sup>th</sup> day of February, 2018.

City of Hattiesburg, Mississippi

Contractor

By: \_\_\_\_\_

Toby Barker, Mayor

By: \_\_\_\_\_

Date: February 6, 2018

Date: \_\_\_\_\_

Attest: \_\_\_\_\_

City Clerk

Attest: \_\_\_\_\_



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-582**

**File ID:** 2018-582

**Type:** Regular Agenda Item

**Status:** Passed

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Lamar Rutland

**File Created:** 06/28/2018

**Brief Title:** Adopt a resolution authorizing submittal of FY-2018  
"Better Utilizing Investments to Leverage  
Development" (BUILD) Discretionary Grant Program  
Application to the U.S. Department of Transportation.

**Final Action:**

**Minute Book Number:** MB2018-170

**Title:**

Adopt a resolution authorizing submittal of FY-2018 "Better Utilizing Investments to Leverage Development" (BUILD) Discretionary Grant Program Application to the U.S. Department of Transportation seeking funds to construct an alternate transportation route to relieve traffic congestion due to railroad delays in the Downtown Area; Application is requesting \$22,000,000 of which 80% or \$17,600,000 is Federal, and 20% or \$4,400,000 is City.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:**

**Sponsors:**

**Enactment Date:**

**Attachments:** RES - BUILD Discretionary Grant, Executed -  
Res#2018-94 - BUILD Discretionary Grant

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Sharon Waits

**Effective Date:**

### History of Legislative File

| Ver-<br>sion: | Acting Body:                                           | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------------------------------------------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council -<br>Amendments to the<br>Agenda          | 07/02/2018 |         |          |           |                 |         |
| 1             | City Council - Public<br>Hearing, Unsafe<br>Properties | 07/02/2018 |         |          |           |                 |         |
| 1             | City Council                                           | 07/03/2018 | Adopt   |          |           |                 | Pass    |

**Action Text:** A MOTION was made by Council Vice President Dryden and seconded by Council Member Delgado to Adopt a resolution authorizing submittal of FY-2018 "Better Utilizing Investments to Leverage Development" (BUILD) Discretionary Grant Program Application to the U.S. Department of Transportation seeking funds to construct an alternate transportation route to relieve traffic congestion due to railroad delays in the Downtown Area; Application is requesting \$22,000,000 of which 80% or \$17,600,000 is Federal, and 20% or \$4,400,000 is City.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado, Carroll, Dryden and Brown

Nays: 0

Yea: 5    Council Member George  
             Council Member Delgado  
             Council President Carroll  
             Council Vice President Dryden  
             Council Member Brown

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## **Text of Legislative File 2018-582**

### **Title**

Adopt a resolution authorizing submittal of FY-2018 "Better Utilizing Investments to Leverage Development" (BUILD) Discretionary Grant Program Application to the U.S. Department of Transportation seeking funds to construct an alternate transportation route to relieve traffic congestion due to railroad delays in the Downtown Area; Application is requesting \$22,000,000 of which 80% or \$17,600,000 is Federal, and 20% or \$4,400,000 is City.

### **Summary**

Adopt a resolution authorizing submittal of FY-2018 "Better Utilizing Investments to Leverage Development" (BUILD) Discretionary Grant Program Application to the U.S. Department of Transportation.

**RESOLUTION AUTHORIZING SUBMITTAL OF AN FY-2018  
“BETTER UTILIZING INVESTMENTS TO LEVERAGE DEVELOPMENT” (BUILD)  
DISCRETIONARY GRANT PROGRAM APPLICATION TO  
THE U.S. DEPARTMENT OF TRANSPORTATION**

**WHEREAS**, the U.S. Department of Transportation’s National Infrastructure Investments under the Consolidated Appropriations Act, 2018, appropriated \$1.5 Billion to be awarded on a competitive basis through the **“Better Utilizing Investments to Leverage Development” (BUILD)** Discretionary Grant Program for capital investments which repair bridges or improve infrastructure to a state of good repair; projects that implement safety improvements to reduce fatalities and serious injuries, including improving grade crossings or providing shorter or more direct access to critical health services; projects that connect communities and people to jobs, services, and education; and, projects that anchor economic revitalization and job growth in communities.

**WHEREAS**, the City of Hattiesburg intends to apply for an FY-2018 BUILD Discretionary Program Grant in the amount of **\$22,000,000** (80% Federal Funds) to construct an alternate transportation route to relieve traffic congestion due to railroad delays in the Downtown area; and

**WHEREAS**, BUILD Discretionary Grants may be used for up to 80 percent of the costs of an eligible transportation project, which must be matched with at least 20 percent in non-federal funds that are not already expended or otherwise encumbered; and

**WHEREAS**, the City of Hattiesburg does hereby commit the minimum match commitment of **\$5,500,000**, which is 20 percent of the project costs; and

**NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF HATTIESBURG, MISSISSIPPI, THAT:**

**SECTION 1:** The statements, findings, determinations, and conclusions contained in the preamble of this resolution are hereby adopted, ratified and incorporated herein.

**SECTION 2:** The Mayor, Municipal Clerk and such other representatives as may be necessary hereby are authorized to prepare and submit a FY-2018 BUILD Discretionary Program Grant

application to the US Department of Transportation to fund said project and to provide any additional information required by the US Department of Transportation in order to complete its review of said application.

The above and foregoing resolution, after having been first reduced to writing, was introduced by Council Member \_\_\_\_\_, seconded by Council Member \_\_\_\_\_, and was adopted by the following roll call vote, to wit:

YEAS:

NAYS:

The President thereby declared the motion carried and the resolution adopted, this the 3rd day of **July**, 2018.

(SEAL)

ATTEST:

ADOPTED:

\_\_\_\_\_

CLERK OF COUNCIL

\_\_\_\_\_

COUNCIL PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of **July**, 2018.

\_\_\_\_\_

CITY CLERK

\_\_\_\_\_

MAYOR

**RESOLUTION AUTHORIZING SUBMITTAL OF AN FY-2018  
“BETTER UTILIZING INVESTMENTS TO LEVERAGE DEVELOPMENT” (BUILD)  
DISCRETIONARY GRANT PROGRAM APPLICATION TO  
THE U.S. DEPARTMENT OF TRANSPORTATION**

**WHEREAS**, the U.S. Department of Transportation’s National Infrastructure Investments under the Consolidated Appropriations Act, 2018, appropriated \$1.5 Billion to be awarded on a competitive basis through the **“Better Utilizing Investments to Leverage Development” (BUILD)** Discretionary Grant Program for capital investments which repair bridges or improve infrastructure to a state of good repair; projects that implement safety improvements to reduce fatalities and serious injuries, including improving grade crossings or providing shorter or more direct access to critical health services; projects that connect communities and people to jobs, services, and education; and, projects that anchor economic revitalization and job growth in communities.

**WHEREAS**, the City of Hattiesburg intends to apply for an FY-2018 BUILD Discretionary Program Grant in the amount of **\$22,000,000** (80% Federal Funds) to construct an alternate transportation route to relieve traffic congestion due to railroad delays in the Downtown area; and

**WHEREAS**, BUILD Discretionary Grants may be used for up to 80 percent of the costs of an eligible transportation project, which must be matched with at least 20 percent in non-federal funds that are not already expended or otherwise encumbered; and

**WHEREAS**, the City of Hattiesburg does hereby commit the minimum match commitment of **\$5,500,000**, which is 20 percent of the project costs; and

**NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF HATTIESBURG, MISSISSIPPI, THAT:**

**SECTION 1:** The statements, findings, determinations, and conclusions contained in the preamble of this resolution are hereby adopted, ratified and incorporated herein.

**SECTION 2:** The Mayor, Municipal Clerk and such other representatives as may be necessary hereby are authorized to prepare and submit a FY-2018 BUILD Discretionary Program Grant



application to the US Department of Transportation to fund said project and to provide any additional information required by the US Department of Transportation in order to complete its review of said application.

The above and foregoing resolution, after having been first reduced to writing, was introduced by Council Member Dryden, seconded by Council Member Delgado, and was adopted by the following roll call vote, to wit:

YEAS: George  
Delgado  
Carroll  
Dryden  
Brown

NAYS: None

The President thereby declared the motion carried and the resolution adopted, this the 3rd day of July, 2018.

(SEAL)

ATTEST:

  
Deputy CLERK OF COUNCIL

ADOPTED:

  
COUNCIL PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 3rd day of July, 2018.

  
CITY CLERK

  
MAYOR



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-568**

**File ID:** 2018-568

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:**

**File Created:** 06/21/2018

**Brief Title:** Acknowledge receipt of unadvertised bid purchase  
docket report

**Final Action:**

**Minute Book Number:** MB2018-171

**Title:**

Acknowledge receipt of unadvertised bid purchase docket report for period of March 1, 2018, through June 20, 2018 as provided for in Section 31-7-13 (b) of the Mississippi Code of 1972.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VII.-1

**Sponsors:**

**Enactment Date:**

**Attachments:** 07-03-UAB Docket

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:**

**Effective Date:**

## History of Legislative File

| Ver-<br>sion: | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council | 07/03/2018 |         |          |           |                 |         |

## Text of Legislative File 2018-568

### Title

Acknowledge receipt of unadvertised bid purchase docket report for period of March 1, 2018, through June 20, 2018 as provided for in Section 31-7-13 (b) of the Mississippi Code of 1972.

### Summary

Acknowledge receipt of unadvertised bid purchase docket report

### Budget Information

### Expenditure Type

**Purchasing Item**

**Publication Information**



/

Mayor  
*Toby Barker*

Council-Ward  
*Jeffrey George*

Council-Ward 2  
*Deborah Denard Delgado*

Council - Ward 3  
*Carter Carroll*

Council-Ward 4  
*Mary Dryden*

Council-Ward 5  
*Nick Brown*

## MEMORANDUM

TO: Mayor and Council

FROM: Michael Pope

DATE: June 21, 2018

SUBJECT: Unadvertised Bid Docket Acknowledgement

Attached is the unadvertised bid docket for the period of March 1, 2018 through June 20, 2018 covering purchases requiring the obtaining of a minimum of two (2) bids as defined in Section 31-7-13 (B) of the Mississippi Code.

This report is submitted for your review, approval, and acknowledgement on the minutes of the City Council. Should there be any questions, please feel free to contact my office.

MAP

| SUCCESSFUL BID/<br>OTHER BID                                                                              | BID<br>RECEIVED                              | BID<br>AWARDED                               | BID<br>AMOUNT                                    | PURCHASE<br>ORDER                   | ITEM<br>DESCRIPTION                           |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|--------------------------------------------------|-------------------------------------|-----------------------------------------------|
| THOMPSON BROTHERS DRILLING<br>GRINER DRILLING SERVICE INC                                                 | 03/09/18<br>02/22/18                         | 03/12/18<br>03/12/18                         | 5,500.00<br>6,785.00                             | 177843                              | INTERGRATE TWO PRELUBRICATION RELAYS          |
| VESCO TENNIS COURTS INC<br>QUALITY COURT INDUSTRIES                                                       | 03/09/18<br>03/09/18                         | 03/12/18<br>03/12/18                         | 12,790.00<br>12,950.00                           | 177860                              | DAHMER TENNIS COURT-RESURFACING               |
| JACKSON, ROOSEVELT III<br>GROVER'S PAINTING INC                                                           | 03/26/18<br>03/22/18                         | 03/28/18<br>03/28/18                         | 10,865.00<br>15,900.00                           | 178314                              | CAMERON FIELD-WASH AND PAINT                  |
| EARL DUDLEY, INC<br>HAYNES INSTRUMENT CO.                                                                 | 04/26/30<br>04/27/18                         | 04/30/18<br>04/30/18                         | 12,777.00<br>14,940.00                           | 179156                              | SURVEYING EQUIPMENT FOR ENGINEERING FOR SEW   |
| OTTO ENVIRONMENTAL SYS NA(CONTAINER)<br>PLUM CREEK ENVIRONMENTAL                                          | 04/25/18<br>05/01/18                         | 05/02/18<br>05/02/18                         | 19,971.64<br>28,757.00                           | 179225                              | GREEN AND BROWN GARBAGE CAN                   |
| BLUE DOLPHIN POOLS<br>ADCOCK POOLS AND SPA                                                                | 04/06/18<br>05/02/18                         | 05/02/18<br>05/02/18                         | 11,900.00<br>25,500.00                           | 179237                              | BEN MCNAIR POOL, C.E. ROY POOL AND VERNON DAH |
| MUNN ENTERPRISES INC<br>C & S CANOPY                                                                      | 05/01/18<br>05/03/18                         | 05/04/18<br>05/04/18                         | 30,333.00<br>35,157.00                           | 179281                              | REPAIRS ON CANOPY/DAMAGE BY STORM             |
| CUSTOM AUTO CREATIONS<br>AUTO TRIM<br>AMERICAN SIGNS                                                      | 05/02/18<br>05/02/18<br>05/02/18             | 05/04/18<br>05/04/18<br>05/04/18             | 6,500.00<br>6,650.00<br>6,950.00                 | 179282                              | STRIPING OF 10 NEW UNITS                      |
| HUB CITY CONSTRUCTION INC<br>SULLIVAN, B W BLDG CONTRACTOR INC                                            | 05/03/18<br>05/04/18                         | 05/04/18<br>05/04/18                         | 49,180.00<br>88,700.00                           | <div>179306</div> <div>F-4 ID</div> | CITY HALL 3RD FLOOR RENOVATION<br>0018-559    |
| ALLIANCE BUS GROUP INC<br>MOBILITY TRANS                                                                  | 05/04/18<br>05/04/18                         | 05/08/18<br>05/08/18                         | 49,756.00<br>50,583.00                           | 179342                              | FORD TRANSIT ADA VAN FOR HUB CITY TRANSIT     |
| HOTSY OF MS<br>TRUCKERS SUPPLY COMPANY                                                                    | 05/07/18<br>05/04/18                         | 05/10/18<br>05/10/18                         | 7,837.99<br>8,995.00                             | 179463                              | 965B HOT WATER TRAILBLAZER TRAILER UNIT - H   |
| MAX MULTIMEDIA & CABLING SOLUTIONS<br>MCQUAGGE PRODUCTIONS                                                | 05/14/18<br>05/14/18                         | 05/22/18<br>05/22/18                         | 18,899.00<br>19,033.50                           | 179736                              | TRAIN DEPOT BALLROOM AUDIO SYSTEM REPAIRS     |
| INDUSTRIAL CHEMICALS INC<br>IDEAL CHEMICAL & SUPPLY COMPANY                                               | 05/22/18<br>05/22/18                         | 05/24/18<br>05/24/18                         | 9,000,000.00<br>9,535,000.00                     | 179822                              | LIME FOR WATERPLANTS                          |
| AFFORDABLE EMERGENCY LIGHTS SERVICE<br>PATTERSON AUTO ELECTRIC<br>FLEET SAFETY EQUIPMENT INC<br>AUTO TRIM | 05/29/18<br>05/25/18<br>05/29/18<br>05/29/18 | 05/31/18<br>05/31/18<br>05/31/18<br>05/31/18 | 13,600.00<br>14,990.00<br>17,850.00<br>18,000.00 | 180005                              | INSTALL PROVIDED EQUIPMENT IN 10 NEW UNITS    |
| SPEEDY PRINTING & SIGNS<br>FASTSIGNS OF HATTIESBURG<br>SIGNS FIRST                                        | 06/06/18<br>06/06/18<br>06/06/18             | 06/07/18<br>06/07/18<br>06/07/18             | 13,363.50<br>18,654.90<br>18,782.70              | 180227                              | BUS STOP SIGNAGE - HUB CITY TRANSIT           |
| CHEM-AQUA<br>CERTIFIED LABORATORIES                                                                       | 06/08/18<br>06/05/18                         | 06/08/18<br>06/08/18                         | 9,025.00<br>9,100.00                             | 180277                              | EQUIPMENT, CHEMICALS, & SERVICES FOR COOLIN   |
| NORRIS CONSTRUCTION<br>HOLLIMON CONSTRUCTION                                                              | 06/08/18<br>06/08/18                         | 06/08/18<br>06/08/18                         | 17,015.00<br>17,040.00                           | 180291                              | HOME REPAIRS, 543 MILLER ST. URBAN DEVELOPM   |
| SOUTHERN ALUMINUM MANUFACTURING ACQ., INC<br>STANDARD OFFICE SUPPLY CO<br>INDOFF INC                      | 06/12/18<br>06/12/18<br>06/11/18             | 06/13/18<br>06/13/18<br>06/13/18             | 8,675.00<br>8,873.00<br>9,775.00                 | 180409                              | ALUMINUM TABLES FOR COMMUNITY CENTERS USE     |

|                                  |          |          |           |        |                                        |
|----------------------------------|----------|----------|-----------|--------|----------------------------------------|
| CARPENTER BUS LLC                | 06/08/18 | 06/14/18 | 15,990.81 | 180452 | 1 BUS RENTAL FOR HUB CITY TRANSIT      |
| MASTER'S TRANSPORTATION          | 06/05/18 | 06/14/18 | 16,110.00 |        |                                        |
| ALLIANCE BUS GROUP INC           | 06/08/18 | 06/14/18 | 18,855.00 |        |                                        |
| GRINER DRILLING SERVICE INC      | 06/15/18 | 06/18/18 | 17,425.00 | 180515 | REPAIRS TO WELL #3 AT WATERPLANT #2    |
| THOMPSON BROTHERS DRILLING       | 06/15/18 | 06/18/18 | 18,000.00 |        |                                        |
| TEMPLE INC                       | 06/18/18 | 06/19/18 | 30,180.00 | 180556 | TRAFFIC SIGNAL PARTS FOR CITY WIDE USE |
| POWELL CONSTRUCTION SERVICES INC | 06/18/18 | 06/19/18 | 33,804.00 |        |                                        |

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 03/12/18  
PO No. 177843  
Req No. 2639

VENDOR MAILING:  
THOMPSON BROTHERS DRILLING  
538 MOSELLE-SEMINARY ROAD  
MOSELLE MS 39459

WAGONER, ROBIN  
MINUTE BOOK # PENDING  
VENDOR # 00104784

SHIP TO :  
CITY OF HATTIESBURG  
WATER PLANT #2  
900 JAMES STREET  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: INTERGRATE TWO PRELUBRICATION RELAYS (601)4250972

| Account # | Description | QTY | UM | UNIT COST | TOTAL COST |
|-----------|-------------|-----|----|-----------|------------|
|-----------|-------------|-----|----|-----------|------------|

|             |                       |      |    |            |          |
|-------------|-----------------------|------|----|------------|----------|
| 009673.6355 | PRELUBRICATE RELAYS   | 1.00 | EA | 5,500.0000 | 5,500.00 |
|             | PRELUBRICATION RELAYS |      |    |            |          |

\*\*\*INTERGRATE (2) PRELUBRICATION RELAYS IN EXISTING MCC AND  
RUN WIRING TO (2)WELLS. INSPECT&TEST BOTH ARE OPERATIONAL.

TOTAL CONTRACT AMOUNT NOT TO EXCEED 5,500.00

SUBMIT SEPARATE INVOICES FOR EACH ORDER. PREPAY SHIPPING CHARGES IF ANY AND ADD TO INVOICE.  
THIS PO NUMBER MUST APPEAR ON ALL PACKAGES & INVOICES.  
FOR CORRECTIONS TO VENDOR ADDRESS ABOVE, CONTACT ACCOUNTING (601) 545-4686.  
KERMAS EATON  
CITY CLERK

2018-02-28 17:53

THOMPSON BROTHERS 6014250972 >> 6015456661

P 1/1

43536

THOMPSON BROTHERS DRILLIN  
538 MOSELLE-SEMINARY ROAD  
MOSELLE MS 39459

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Mail To . . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
228 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39481

Phone Number . . 601 5454512

PRINTED NAME Thompson Brothers  
SIGNATURE [Signature] DATE 2-28-18

Shipping terms are F.O.B. destination, freight prepaid

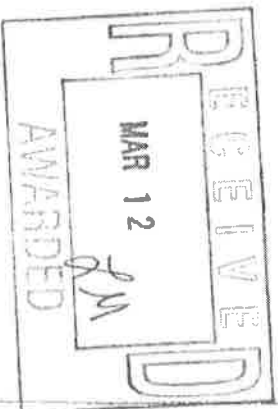
|                                                                                                                        |  |             |  |               |  |         |  |               |  |
|------------------------------------------------------------------------------------------------------------------------|--|-------------|--|---------------|--|---------|--|---------------|--|
| PROJECT LINE: INTERGRATE TWO PRELUBRICATION RELAYS                                                                     |  |             |  |               |  |         |  |               |  |
| ITEM DESCRIPTION                                                                                                       |  |             |  |               |  |         |  |               |  |
| PRELUBRICATE RELAYS                                                                                                    |  |             |  |               |  |         |  |               |  |
| PRELUBRICATION RELAYS                                                                                                  |  |             |  |               |  |         |  |               |  |
| Request Date                                                                                                           |  | 02/22/18    |  | QTY           |  | 1.00    |  | EA            |  |
| Unit Price                                                                                                             |  | 5500        |  | Extended Cost |  | 5500.00 |  | Delivery Date |  |
| Exp'd Date                                                                                                             |  | Feb 1, 2018 |  |               |  |         |  |               |  |
| ***INTERGRATE (2) PRELUBRICATION RELAYS IN EXISTING MCC AND RUN WIRING TO (2) MELS. INSPECT/TEST BOTH ARE OPERATIONAL. |  |             |  |               |  |         |  |               |  |

TOTAL BID PRICE

85500

3/12/18

*[Handwritten signature]*



AWARDED



43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 1  
Date . . . . . 2/22/18  
Order Number . . . . . 2639 00

GRINER DRILLING SERVICE I  
PO DRAWER 825  
COLUMBIA MS 39429-0825

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME Griner Drilling Service, Inc.

Phone Number . . 601 5454512

SIGNATURE [Signature] DATE 3/9/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: INTERGRATE TWO PRELUBRICATION RELAYS

| ITEM DESCRIPTION                                                                                                      | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|-----------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
| PRELUBRICATE RELAYS                                                                                                   | 02/22/18     | 1.00 | EA | \$6,785.00 | \$6,785.00    | 03/26/18      | 06/25/18     |
| PRELUBRICATION RELAYS                                                                                                 |              |      |    |            |               |               |              |
| ***INTERGRATE (2) PRELUBRICATION RELAYS IN EXISTING MCC AND RUN WIRING TO (2)WELLS.INSPECT&TEST BOTH ARE OPERATIONAL. |              |      |    |            |               |               |              |

TOTAL BID PRICE \$6,785.00

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 03/12/18  
PO No. 177860  
Req No. 2643

VENDOR MAILING:  
VESCO TENNIS COURTS INC  
PO BOX 980  
SLIDELL LA 70459-0980

LEWIS, AKIRA  
MINUTE BOOK # PENDING  
VENDOR # 00017390

SHIP TO :  
CITY OF HATTIESBURG  
GROUNDS MAINTENANCE  
139 PARKWAY BLVD  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: DAHMER TENNIS COURT-RESURFACING

SEND METHOD 1 (985)8826791

| Account #   | Description                                                                                                                                                                                                                                                                                                                                                                                               | QTY  | UM | UNIT COST   | TOTAL COST |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|------------|
| 002300.6999 | FURNISH ALL MATERIALS AND LABOR TO COMPLETE TWO TENNIS COURTS, WASH ENTIRE SURFACE W/A HYDROSCRUB PRESSURE WASHER AND FREE SURFACE OF ALL LOOSE MATERIAL AND REPAIR AS SPECIFIED. FILL ANY CRACKS AND DEPRESSION USING WORLD CLASS MATERIAL AS SPECIFIED. APPLY 3 COATS SURFACING SYSTEM AS SPECIFIED, APPLY WHITE PLAYING LINES USING TEXTURED LINE PAINT. REPAINT NET POSTS<br>**NOT TO EXCEED 13,500** | 1.00 | EA | 12,790.0000 | 12,790.00  |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

12,790.00

SUBMIT SEPARATE INVOICES FOR EACH ORDER. PREPAY SHIPPING CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR ADDRESS ABOVE, CONTACT ACCOUNTING (601) 545-4686.

KERMAS EATON  
CITY CLERK

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 2/26/18  
Date . . . . . 2/26/18  
Order Number . . . . . 00

VESCO TENNIS COURTS INC  
PO BOX 980  
SLIDELL LA 70459-0980

Mail To . . . . .

CITY OF HATTIESBURG  
PURCHASING DIVISION  
225 W FRONT ST 2ND FLOOR  
PO BOX 1598  
HATTIESBURG MS 39401

Phone Number . . . . . 601 3454512

PRINTED NAME ALAN VST

SIGNATURE [Signature] 3/11/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: DABNER TENNIS COURT-RESURFACING

ITEM DESCRIPTION

| Request Date | QTY  | UM | Unit Price | Extended Cost | Deliver Date | Expired Date |
|--------------|------|----|------------|---------------|--------------|--------------|
| 2/26/18      | 1.00 | EA | 12.715     | 12.715        | 3/26/18      | 70 days      |

FINISH ALL MATERIALS AND LABOR TO COMPLETE TWO TENNIS COURTS. FILL ENTIRE SURFACE W/ A HYPOCURE PRESSURE WASHED AND FREE SURFACE OF ALL LOOSE MATERIAL AND REPAIR AS SPECIFIED. FILL IN CRACKS AND DEFLECTION INST. MODIFIED AS MATERIALS SPECIFIED. APPLY 3 COATS OF ACRYLIC SYSTEM AS SPECIFIED. ATLY WITH PLAYING LINES IN. PAINTED LINES. PAINT REMAINING POSTS TO EXCEED 13.500--

[Signature]

TOTAL BID PRICE \$ 12,715.00



43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 2/26/18  
Date . . . . . 26:13 00  
Order Number . . . . .

QUALITY COURT INDUSTRIES  
5661 BROWNFIELD DRIVE  
BATON ROUGE LA 70811

Mail To . . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1598  
HATTIESBURG MS 39401

Phone Number . . 601 5454512

PRINTED NAME

Brian Conolly

SIGNATURE

*Brian Conolly*

DATE 3/9/18

Shipping terms are F.O.B. destination. freight prepaid

PROJECT LINE: DAHMER TENNIS COURT-RESURFACING

ITEM DESCRIPTION

FURNISH ALL MATERIALS AND LABOR TO COMPLETE TWO TENNIS COURTS. WASH ENTIRE SURFACE W/ A HYDROSCRUB PRESSURE WASHER AND FREE FILL SURFACE OF ALL LOOSE MATERIAL AND REPAIR AS SPECIFIED. AS ANY CRACKS AND DEPRESSION SURFACING SYSTEM AS SPECIFIED. APPLY SPECIFIED. APPLY 3 COATS SURFACING SYSTEM AS SPECIFIED. WHITE PLAYING LINES USING TEXTURED LINE PAINT. REPAINT NET POSTS

\*\*NOT TO EXCEED 13,500\*\*

| Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|------|----|------------|---------------|---------------|--------------|
| 02/26/18     | 1.00 | EA | 12,950.00  | 12,950.00     | Normal        | 9/5/18       |

Approved  
15  
Approved

TOTAL BID PRICE \$12,950.00

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 03/28/18  
PO No. 178314  
Req No. 2645

VENDOR MAILING:  
ROOSEVELT JACKSON III  
905 MONTEREY LANE  
HATTIESBURG MS 39402

LEWIS, AKIRA  
MINUTE BOOK # PENDING  
VENDOR # 00077568

SHIP TO :  
CITY OF HATTIESBURG  
GROUNDS MAINTENANCE  
139 PARKWAY BLVD  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: CAMERON FIELD-WASH AND PAINT

SEND METHOD 1 ( )

| Account # | Description | QTY | UM | UNIT COST | TOTAL COST |
|-----------|-------------|-----|----|-----------|------------|
|-----------|-------------|-----|----|-----------|------------|

|              |                                                                                                                                                                                                                                                                                                                                                                               |      |    |             |           |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|-----------|
| 002300.69999 | PAINT AND WASH THE FRONT OF THE CONCESSION STAND, ALL DUGOUTS, AND ALL BLEACHERS, INSIDE OF THE STADIUM CEILING WILL NEED TO BE PRESSURE WASHED AND REPAINTED PER SPECIFICATIONS. DESIRED START DATE THE WEEK OF 3/26/18 AND COMPLETED BY 4/13/18. ALL AREAS OF CAMERON FIELD ARE TO BE PRESSURE WASHED AND REPAINTED CONTACT PERSON FOR PROJECT **JOHN MCLEMORE 6016061475** | 1.00 | EA | 10,865.0000 | 10,865.00 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|-----------|

TOTAL CONTRACT AMOUNT NOT TO EXCEED

10,865.00

SUBMIT SEPARATE INVOICES FOR EACH ORDER. PREPAY SHIPPING CHARGES IF ANY ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR ADDRESS ABOVE, CONTACT ACCOUNTING (601) 545-4686.

KERMAS EATON  
CITY CLERK

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

ROOSEVELT JACKSON III  
905 MONTEREY LANE  
HATTIESBURG MS 39402

Mail To

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 N. FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Page No. 1  
Date 3/23/18  
Order Number 2645 00

PRINTED NAME

Roosevelt Jackson III

Phone Number 601 5454512

SIGNATURE

Roosevelt Jackson III DATE 3/26/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: CAMERON FIELD-WASH AND PAINT

ITEM DESCRIPTION

| Request Date | QTY | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|-----|----|------------|---------------|---------------|--------------|
|--------------|-----|----|------------|---------------|---------------|--------------|

03/14/18

1.00 EA

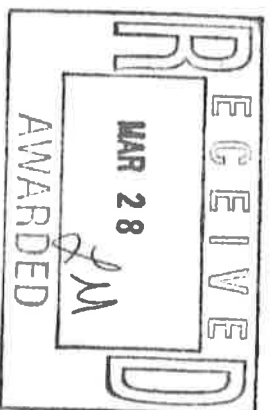
PAINT AND WASH THE FRONT OF THE CONCESSION STAND ALL DECALS AND ALL REACHER  
REPAIRED TO THE STANDARD BEER SPECIFICATIONS DESIRED START DATE  
CAMERON FIELD 03/14/18 AND COMPLETED BY 4/13/18. ALL AREAS OF  
CAMERON FIELD TO BE REPAINTED \*ASTED AND REPAINTED  
CONTACT PERSON FOR PROJECT JOHN MCLEMORE 6016061122

TOTAL BID PRICE

\$10,865.00

*Roosevelt Jackson III*

3-28-18



43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 3/23/18  
Date . . . . . 2645 00  
Order Number . . . . .

GROVER'S PAINTING INC  
40 DEEP SOUTH LN  
PO BOX 220  
PURVIS MS 39475-0220

Mail To . . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME

SIGNATURE

*308421 H CRASHA NOV 4 JR*  
*3-27-18*

Shipping terms are F.O.B. destination, freight prepaid

Phone Number . . 601 5454512

PROJECT LINE: CAMERON FIELD-WASH AND PAINT

ITEM DESCRIPTION

PAINT AND WASH THE FRONT OF THE CONCESSION STAND, ALL DECKS, AND ALL BLEACHERS INSIDE OF THE STADIUM CEILING WILL NEED TO BE PRESSTRE WASHED AND REPAINTED PER SPECIFICATIONS. DESIRED START DATE THE WEEK OF 3/26/18 AND COMPLETED BY 4/13/18. ALL AREAS OF CAMERON FIELD ARE TO BE PRESSTRE WASHED AND REPAINTED. CONTACT PERSON FOR PROJECT \*\*JOHN MCLEMORE 6016061475\*\*

| Request Date | QTY  | LM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|------|----|------------|---------------|---------------|--------------|
| 03/11/18     | 1.00 | EA |            |               |               |              |

TOTAL BID PRICE \$15,900.00

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORMPage No. . . . . 3/14/18  
Date . . . . . 2645 00GROVER'S PAINTING INC  
40 DEEP SOUTH LN  
PO BOX 220  
PURVIS MS 39475-0220Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Phone Number . . 601 5454512

PRINTED NAME Forrest HASANOVATESIGNATURE [Signature] DATE 3-22-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: CAMERON FIELD-WASH AND PAINT

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
|                                                                                                                                                                                                                                                                                                                                                                                 |              |      |    |            |               |               |              |
| PAINT AND WASH THE FRONT OF THE CONCESSION STAND, ALL DUGOUTS, AND ALL BEACHER INSIDE OF THE STADIUM CEILING WILL NEED TO BE PRESSURE WASHED AND REPAINTED PER SPECIFICATIONS. DESIRED START DATE THE WEEK OF 3/26/18 AND COMPLETED BY 4/13/18. ALL AREAS ARE TO BE REPAINTED AFTER PRESSURE WASHING. **WORK IS NOT TO EXCEED \$7000.00**WORK WILL BE COMPLETED AT CAMERON PARK | 03/14/18     | 1.00 | EA |            |               |               |              |

TOTAL BID PRICE \$15,900.00



BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 04/30/18  
PO No. 179156  
Req No. 2657

VENDOR MAILING:  
EARL DUDLEY, INC  
5352 FIRST AVENUE NORTH  
BIRMINGHAM AL 35212

WAITS, SHARON  
MINUTE BOOK # PENDING  
VENDOR # 00109299

SHIP TO :  
CITY OF HATTIESBURG  
ENGINEERING/PUBLIC SERVICES  
212 WEST FRONT STREET-CENTENNIAL BLDG  
HATTIESBURG MS 39401

PROJECT LINE: SURVEYING EQUIPMENT FOR ENGINEERING FOR SEWER PROJECTS

| Account #   | Description                                                                                                                                  | QTY  | UM | UNIT COST   | TOTAL COST |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|------------|
| 075695.7399 | TOPCON HIPER SR KIT<br>Topcon Hiper SR Rover Kit, Ggd, 10Hz with battery, charger, USB cable, hard carry case, 2m Rover pole, 1 yr warranty. | 1.00 | EA | 8,900.0000  | 8,900.00   |
| 075695.7399 | TOPCON FC-5000 GEO<br>Topcon FC-5000 GEO Data Collector<br>Includes Std Removeable battery, AC wall charger, stylus, and hand strap.         | 1.00 | EA | 1,995.0000  | 1,995.00   |
| 075695.7399 | MAGNET FIELD GPS<br>Magnet Field GPS, +optical software                                                                                      | 1.00 | EA | 1,576.0000  | 1,576.00   |
| 075695.7399 | FC-5000 CRADLE<br>FC-5000 Cradle with Pole Clamp                                                                                             | 1.00 | EA | 150.0000    | 150.00     |
| 075695.7399 | SOFTCASE FOR FC5000<br>Softcase for FC-5000                                                                                                  | 1.00 | EA | 36.0000     | 36.00      |
| 075695.7399 | VEHICLE CHARGER<br>Vehicle Charger                                                                                                           | 1.00 | EA | 20.0000     | 20.00      |
| 075695.7399 | TOPCON GTS 303 CABL<br>Cable to connect Topcon GTS-303 TS                                                                                    | 1.00 | EA | 100.0000    | 100.00     |
| 075695.7399 | ONSITE TRAINING<br>Onsite Training and Installation                                                                                          | 1.00 | EA | .0000       |            |
| 075695.7399 | MULTIUSER DISCOUNT<br>Additional multiuser discount                                                                                          | 1.00 | EA | 1,377.0000- | 1,377.00-  |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

11,400.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

DAVE DUKLEY, INC.  
2202 FIRST AVENUE NORTH  
HATTIESBURG, MS 39401

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Mail To  
CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 N FRONT ST 2ND FLOOR  
PO BOX 1808  
HATTIESBURG, MS 39401

Page No  
Date 4/24/18  
Order Number 2657 02

PRINTED NAME: Jerome Parsons - Sales Associate

Phone Number 601 5454512

SIGNATURE: Jerome Parsons DATE: 4-24-18

Shipping terms are F.O.B. destination. Freight Unpaid

PROJECT LINE: SURVEYING EQUIPMENT FOR ENGINEERING FOR SEWER PROJECTS

| ITEM DESCRIPTION                                                                                                                         | Request Price | QTY   | UNIT | Unit Price | Extended Cost | Delivery Unit | Expired Date |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------|------|------------|---------------|---------------|--------------|
| TOMSON HIVER SR R/T<br>Tomson Hiver SR Rover Kit, w/ 601 with battery, charger, USB cable, hard carry case, 2w Rover pole, 1 w/ warranty | 04/24/18      | 1 (X) | EA   | 8900.00    | 8900.00       | 5 days<br>H20 | 5-30-18      |
| URGENT PC-5000 GPS<br>Topcon PC-5000 100 Data Collector<br>Includes Std Removable Battery, AC wall charger, stylus, and hand strap       | 04/24/18      | 1 (X) | EA   | 1995.00    | 1995.00       | 5 days<br>H20 | 5-30-18      |
| URGENT FIELD GPS<br>Magnet Field GPS - Optional collector                                                                                | 04/24/18      | 1 (X) | EA   | 1576.00    | 1576.00       | 5 days<br>H20 | 5-30-18      |
| PC-5000 CRABE<br>PC-5000 Cradle with Pole Clamp                                                                                          | 04/24/18      | 1 (X) | EA   | 150.00     | 150.00        | 5 days<br>H20 | 5-30-18      |
| SOFTWARE FOR PC-5000<br>Software for PC-5000                                                                                             | 04/24/18      | 1 (X) | EA   | 36.00      | 36.00         | 5 days<br>H20 | 5-30-18      |
| VEHICLE CHARGER<br>Vehicle Charger                                                                                                       | 04/24/18      | 1 (X) | EA   | 20.00      | 20.00         | 5 days<br>H20 | 5-30-18      |
| URGENT GTS 303 CABLE<br>Cable to connect Tomson GTS 303                                                                                  | 04/24/18      | 1 (X) | EA   | 100.00     | 100.00        | 5 days<br>H20 | 5-30-18      |

43530

CITY OF BALTIMORE  
QUOTE REQUEST IN-TOWN FORM

Page No 4/24/18  
Date 2/27/18  
By Jey Number 00

PROJECT LINE: SURVEILING EQUIPMENT FOR ENGINEERING FOR SEWER PROJECTS

ITEM DESCRIPTION

ON-SITE TRAINING  
On-site training and familiarization

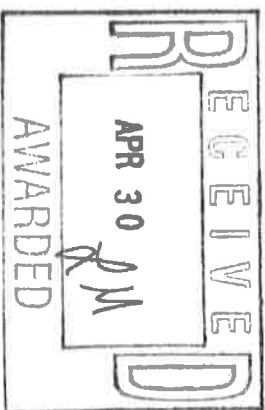
MULTIUSER TRAINING  
Additional multiuser discount

| Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|------|----|------------|---------------|---------------|--------------|
| 04/24/18     | 1.00 | EA | 0.00       | 0.00          | 5/30/18       | 5/30/18      |

04/24/18 1.00 EA (-1,397.00) (-1,397.00) 5/30/18

TOTAL NET PRICE: \$11,400.00

Steven H. Howard, President



Steven Howard

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. 1  
Date 4/24/18  
Order Number 2657 00

HAYNES INSTRUMENT CO.  
502 S CANNON BLVD  
SHELBYVILLE TN 37160

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Mail To . . .  
Phone Number . 601 5454512

PRINTED NAME

Charles Bryan

SIGNATURE

Chad

DATE 04/21/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: SURVEYING EQUIPMENT FOR ENGINEERING FOR SEWER PROJECTS

| ITEM DESCRIPTION                                                                                                                             | Request Date | QTY  | UNIT | Unit Price  | Extended Cost | Delivery Date | Expired Date |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|------|-------------|---------------|---------------|--------------|
| TOPCON HIPER SR KIT<br>Topcon Hiper SR Rover Kit, GSD, 10Hz with battery, charger, USB cable, hard carry case, 2m Rover pole, 1 yr warranty. | 04/24/18     | 00   | EA   | \$18,900.00 | \$18,900.00   | 5/12/18       | 6/20/18      |
| TOPCON FC-5000 GEO<br>Topcon FC-5000 GEO Data Collector<br>Includes Std Removable battery, AC wall charger, stylus, and hand strap.          | 04/24/18     | 1.00 | EA   | \$1,995.00  | \$1,995.00    |               |              |
| MAGNET FIELD GPS<br>Magnet Field GPS, optical software                                                                                       | 04/24/18     | 1.00 | EA   | \$1,625.00  | \$1,625.00    |               |              |
| FC-5000 CRADLE<br>FC-5000 Cradle with Pole Clamp                                                                                             | 04/24/18     | 1.00 | EA   | \$225.00    | \$225.00      |               |              |
| SOFTCASE FOR FC5000<br>Softcase for FC-5000                                                                                                  | 04/24/18     | 1.00 | EA   | \$35.00     | \$35.00       |               |              |
| VEHICLE CHARGER<br>Vehicle Charger                                                                                                           | 04/24/18     | 1.00 | EA   | \$35.00     | \$35.00       |               |              |
| TOPCON GTS 303 CABL<br>Cable to connect Topcon GTS-303 TS                                                                                    | 04/24/18     | 1.00 | EA   | \$125.00    | \$125.00      | 5/12/18       | 6/20/18      |

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. : : : 2  
Date : : : 4/24/18  
Order Number : : : 2657 00

PROJECT LINE: SURVEYING EQUIPMENT FOR ENGINEERING FOR SEWER PROJECTS

ITEM DESCRIPTION

ONSITE TRAINING  
Onsite Training and Installation

Request Date 04/24/18 QTY 2.00 UOM EA Unit Price \$1,000.00

Extended Cost \$2,000.00 Delivery Date 5/24/18 Expired Date 06/04/18

MULTIUSER DISCOUNT  
Additional multiuser discount

04/24/18 1.00 EA

0%

TOTAL BID PRICE \$14,940.00

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 05/02/18  
PO No. 179225  
Req No. 2655

VENDOR MAILING:  
OTTO ENVIRONMENTAL SYSTEMS NA INC  
PO BOX 603504  
CHARLOTTE NC 28260-3504

EVANS, TERESA WILLIAMS  
MINUTE BOOK # PENDING  
VENDOR # 90087303

(601) 5454626

SHIP TO :  
CITY OF HATTIESBURG  
MERCHANDISE ORDERED WILL BE PICKED UP

PROJECT LINE: GREEN AND BROWN GARBAGE CAN

PROCESSING CODE:

SEND METHOD 1 (704)5888981

| Account #   | Description                                                                                                                                                                                                                                                                                                                                              | QTY    | UM | UNIT COST | TOTAL COST |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|-----------|------------|
| 001220.7399 | 95GAL MIL GREEN CAN<br>PART #9755656F-IM10-RFID-B29B WITH CITY LOGO<br>10 DIAMETER INJECTION MOLDED WHEELS, SOLID STEEL AXLE, AND<br>METAL FRONT BAR-INCLUDES CUSTOM LOGO HOT STAMP ON EACH SIDE<br>OF CART BODY-INCLUDES SEQUENTIAL SERIAL NUMBER HOT STAMP ON<br>EACH CONTAINER-INCLUDES 10 YEAR NON-PRORATED WARRANTY ON<br>ANY MANUFACTURER DEFECTS. | 193.00 | EA | 51.7400   | 9,985.82   |
| 001220.7399 | 95GAL MIL BROWN CAN<br>PART #97263GLID BROWN WITH CITY LOGO<br>10 DIAMETER INJECTION MOLDED WHEELS, SOLID STEEL AXLE, AN<br>METAL FRONT BAR-INCLUDES CUSTOM LOGO HOT STAMP ON EACH SI<br>OF CART BODY-INCLUDES SEQUENTIAL SERIAL NUMBER HOT STAMP<br>EACH CONTAINER-INCLUDES 10 YEAR NON-PRORATED WARRANTY ON<br>ANY MANUFACTURER DEFECTS.               | 193.00 | EA | 51.7400   | 9,985.82   |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

19,971.64

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORMPage No. . . . . 4/13/18  
Date . . . . . 2655  
Order Number . . . . .OTTO ENVIRONMENTAL SYSTEM  
PO BOX 603584  
CHARLOTTE NC 28260-3584Mail To. . . . .  
CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401PRINTED NAME Sabrina Bowling

Phone Number . . 601 5454512

SIGNATURE Sabrina Bowling DATE April 25, 2018

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: GREEN AND BROWN GARBAGE CAN

## ITEM DESCRIPTION

95GAL MIL GREEN CAN

PART #9755656F-1M10-RP1D-8298 WITH CITY LOGO

18 DIAMETER INJECTION MOLDED WHEELS, SOLID STEEL AXLE, AND  
METAL FRONT BAR-INCLUDES CUSTOM LOGO HOT STAMP ON EACH SIDE  
OF CART BODY-INCLUDES SEQUENTIAL SERIAL NUMBER HOT STAMP ON  
EACH CONTAINER-INCLUDES 10 YEAR NON-PRORATED WARRANTY ON  
ANY MANUFACTURER DEFECTS.

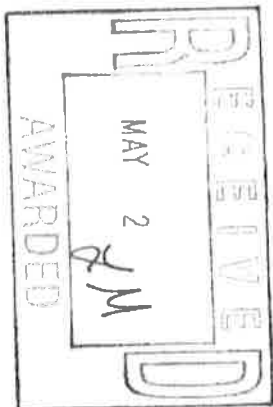
| Request Date | QTY    | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|--------|----|------------|---------------|---------------|--------------|
| 04/13/18     | 193.00 | EA | \$51.74    | \$9985.82     | 4 weeks       | one year     |

95GAL MIL BROWN CAN

PART #9726361D BROWN WITH CITY LOGO

18 DIAMETER INJECTION MOLDED WHEELS, SOLID STEEL AXLE, AND  
METAL FRONT BAR-INCLUDES CUSTOM LOGO HOT STAMP ON EACH SIDE  
OF CART BODY-INCLUDES SEQUENTIAL SERIAL NUMBER HOT STAMP  
EACH CONTAINER-INCLUDES 10 YEAR NON-PRORATED WARRANTY ON  
ANY MANUFACTURER DEFECTS.

| Request Date | QTY    | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|--------|----|------------|---------------|---------------|--------------|
| 04/13/18     | 193.00 | EA | \$51.74    | \$9985.82     | 4 weeks       | one year     |

TOTAL BID PRICE \$19,971.64

0501

43530

PLUM CREEK ENVIRONMENTAL  
1302 EAST INDUSTRIAL ACCE  
WEST POINT MS 39773

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Mail To. . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Page No. . . . 4/24/18  
Date . . . . 2655 00  
Order Number . . .

PRINTED NAME

Andrew Lample

SIGNATURE

Andrew Lample

DATE 5/11/18

Phone Number . . 601 5454512

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: GREEN AND BROWN GARBAGE CAN

ITEM DESCRIPTION

95GAL MIL GREEN CAN

PART #9755656F-IM10-RFID-8298 WITH CITY LOGO  
10 DIAMETER INJECTION MOLDED WHEELS, SOLID STEEL AXLE AND  
METAL FRONT BAR-INCLUDES CUSTOM LOGO HOT STAMP ON EACH SIDE  
OF CART BODY-INCLUDES SEQUENTIAL SERIAL NUMBER HOT STAMP ON  
EACH CONTAINER-INCLUDES 10 YEAR NON-PRORATED WARRANTY ON  
ANY MANUFACTURER DEFECTS.

Request  
Date 04/13/18

QTY 193.00

UM EA

Unit  
Price \$79.50

Extended  
Cost \$14,378.00

Delivery  
Date 4/24/18  
Expired  
Date

95GAL MIL BROWN CAN

PART #97263GLID BROWN WITH CITY LOGO  
10 DIAMETER INJECTION MOLDED WHEELS, SOLID STEEL AXLE, AN  
METAL FRONT BAR-INCLUDES CUSTOM LOGO HOT STAMP ON EACH SI  
OF CART BODY-INCLUDES SEQUENTIAL SERIAL NUMBER HOT STAMP  
EACH CONTAINER-INCLUDES 10 YEAR NON-PRORATED WARRANTY ON  
ANY MANUFACTURER DEFECTS.

Request  
Date 04/13/18

QTY 193.00

UM EA

Unit  
Price 74.50

Extended  
Cost \$14,378.00

TOTAL BID PRICE \$30,492.00

Freight Cost \$1735.00



BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432

POINT OF CONTACT:

Page 1  
Date 05/02/18  
PO No. 179237  
Req No. 2651

VENDOR MAILING:  
BLUE DOLPHIN POOLS  
500 CAMPBELL LP  
STE 60  
HATTIESBURG MS 39401

MONTGOMERY, LINDA  
MINUTE BOOK # PENDING  
VENDOR # 00074627

(601) 5454623  
SHIP TO:  
CITY OF HATTIESBURG  
REC-RECREATION CENTER(OLD YMCA)  
300 N 12TH AVENUE  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: BEN MCNAIR POOL, C.E.ROY POOL AND VERNON DAHMER POOL

SEND METHOD 1 (601)5447319

| Account #   | Description                                                                                                                                                                                                                                                         | QTY  | UM | UNIT COST  | TOTAL COST |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|------------|
| 002315.6049 | MAINTENANCE<br>SERVICE FOR ALL THREE(3) POOLS: BEN MCNAIR, C.E.ROY POOL<br>AND VERNON DAHMER POOL.                                                                                                                                                                  | 1.00 | EA | 5,100.0000 | 5,100.00   |
| 002315.6049 | DRAIN AND WASH<br>ALL THREE(3) POOLS: BEN MCNAIR, C.E. ROY POOL AND VERNON<br>DAHMER POOL. VENDOR SHALL REFILL POOL AND BALANCE POOL WITH<br>CHEMICALS AS PER MANUFACTURES SPECIFICATIONS. VENDOR SHALL<br>COORDINATE WITH THE CITY OF HATTIESBURG RECREATION DEPT. | 1.00 | EA | 6,800.0000 | 6,800.00   |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

11,900.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

4-20-18

BLUE DOG POOL  
500 CASTLE L.P.  
SITE 80  
HATTIESBURG MS 39401

CITY OF HATTIESBURG  
GEOTECHNICAL RESPONSE FORM

Mail To

CITY OF HATTIESBURG  
500 CASTLE L.P.  
SITE 80  
HATTIESBURG MS 39401

Page No 1  
Date 4/06/18  
Order Number 11

PRINTED NAME Steve Ladnier

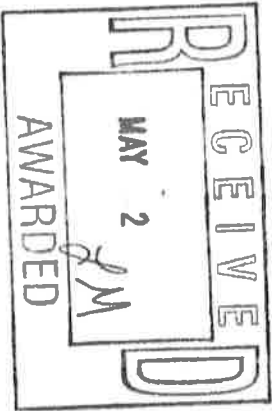
Phone Number 601 564-1012

SIGNATURE [Signature] DATE 4/10/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE BEN MONAIR POOL C E ROY POOL AND VERNON DANGER POOL

| ITEM DESCRIPTION                                                                          | Request Date | QTY  | UN | Unit Price | Extended Cost | Delivery Date | Expired Date |
|-------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
| MAINTENANCE SERVICE FOR ALL THREE(3) POOLS BEN MONAIR C E ROY POOL AND VERNON DANGER POOL | 04/03/18     | 1.00 | EA | 5,100.00   | 5,100.00      | 5/15          | 7/31         |
| DRAIN AND WASH ALL THREE(3) POOLS BEN MONAIR C E ROY POOL AND VERNON DANGER POOL          | 04/03/18     | 1.00 | EA | 6,800.00   | 6,800.00      | 5/15          | 7/31         |
| TOTAL BID PRICE 11,900.00                                                                 |              |      |    |            |               |               |              |



[Signature]  
5-2-18

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

ADOCK AND SPOCK, INC.  
ADOCK POOLS AND SPA  
6192 US HIGHWAY 98 W  
HATTIESBURG, MS 39402-8330

Mail To:

CITY OF HATTIESBURG  
PURCHASING DIVISION  
206 W. FRONT ST. 2ND FLOOR  
BOX 1896  
HATTIESBURG MS 39401

Page No. 1  
Date 4/06/18  
Order Number 2651 00

Phone Number . 601 5454512

PRINTED Adcock Pools & Spa  
SIGNATURE Catherine Heint 05/02/18

Shipping terms are F.O.B. destination. freight prepaid

PROJECT LINE: BEN MCNAIR POOL, C.E. ROY POOL AND VERNON DANNER POOL

ITEM DESCRIPTION  
MAINTENANCE  
SERVICE FOR ALL THREE(3) POOLS: BEN MCNAIR, C.E. ROY POOL  
AND VERNON DANNER POOL

Request Date

04/06/18

QTY

1.00

UM

EA

Unit Price

15,000.00

Extended Cost

15,000.00

Delivery Date

4/11/18

Expired Date

07/31/18

1.00 EA

10,500.00

10,500.00

5/31/18

05/31/18

DRAIN AND WASH  
ALL THREE(3) POOLS: BEN MCNAIR, C.E. ROY POOL AND VERNON  
DANNER POOL. REQUEST FOR QUOTE AND SPECIFICATION SHEET  
COORDINATE WITH THE CITY OF HATTIESBURG RECREATION DEPT.

04/06/18

TOTAL BID PRICE 35,000.00

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 05/04/18  
PO No. 179281  
Req No. 2661

VENDOR MAILING:  
MUNN ENTERPRISES INC  
7712 US HIGHWAY 49 N  
HATTIESBURG MS 39402-2854

EVANS, TERESA WILLIAMS  
MINUTE BOOK # PENDING  
VENDOR # 00013359

SHIP TO :  
CITY OF HATTIESBURG  
PUBLIC WORKS DEPT  
1202 JAMES STREET  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: REPAIRS ON CANOPY/DAMAGE BY STORM

SEND METHOD 1 (601)2647449

| Account #   | Description                    | QTY  | UM | UNIT COST   | TOTAL COST |
|-------------|--------------------------------|------|----|-------------|------------|
| 001201.6351 | CANOPY SPECS<br>SEE ATTACHMENT | 1.00 | EA | 30,333.0000 | 30,333.00  |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

30,333.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

43530

WOMEN ENTREPRENEURS, INC.  
7712 US HIGHWAY 95 N  
HATTIESBURG MS 39402-2654

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. \_\_\_\_\_  
Date \_\_\_\_\_  
Order Number \_\_\_\_\_  
CITY OF HATTIESBURG  
PURCHASING DIVISION  
PO BOX 1898  
ST. AND FLOOR  
HATTIESBURG MS 39401

PRINTED NAME Harold Munn

Phone Number . . 601 5454512

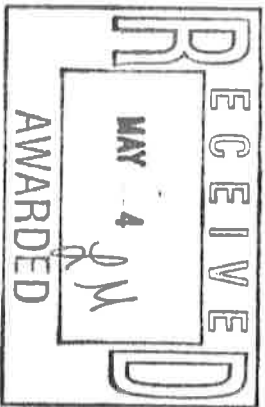
SUBMITTER Hudon DATE 05/01/2018

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: REPAIRS ON CANOPY/DAMAGE BY STORM

| ITEM DESCRIPTION               | Request Date | QTY  | UNIT | Unit Price  | Extended Cost | Delivery Date | Expire Date |
|--------------------------------|--------------|------|------|-------------|---------------|---------------|-------------|
| CANOPY SPECS<br>SEE ATTACHMENT | 04/27/18     | 1.00 | EA   | \$30,333.00 | \$30,333.00   | 07/25/18      | 08/25/18    |

TOTAL BID PRICE \$30,333.00



*[Signature]*  
5-4-18  
*[Signature]*  
5-4-18



**Munn Enterprises, Inc.**  
 7712 US Hwy 49 N  
 Hattiesburg, MS 39402  
 800-231-7484  
 Phone (601) 264-7446  
 Fax (601) 264-7449  
 e-mail haroldm@munnterprises.com

# Contract

Customer No.: CIT100  
 CONTRACT: 41105

1

**Sold To: City of Hattiesburg**  
 ATTN: Accounts Payable  
 P.O. Box 1898  
 Hattiesburg, MS 39403

**Ship To: Public Works**  
 1202 James St  
 Hattiesburg, MS 39401

| Date                           | Ship Via                | F.O.B.                                                                                   | Terms                        |
|--------------------------------|-------------------------|------------------------------------------------------------------------------------------|------------------------------|
| 05/01/18                       | MUNN INSTALLATION       | Origin                                                                                   | 50 % Deposit Upon Acceptance |
| PHONE NUMBER<br>(601) 545-4648 | CONTACT<br>Teresa Evans | E-Mail Address<br><a href="mailto:tevans@hattiesburgms.com">tevans@hattiesburgms.com</a> | FAX NUMBER                   |
| Purchase Order Number          | Project Manager         | Required                                                                                 |                              |
| Quantity                       | Howard Munn             | 07/25/18                                                                                 |                              |
| Required : Shipped : B.O.      | Item Number             | Description                                                                              | Unit Price Amount            |

## OPTION 3

Gas Canopy 60' Wide x 60' long  
 straight pull thru

\*\*\*\*\*

Damaged Canopy pan replacement

3600

Remove existing Fasica, Upgrights,  
 rails, canopy lights, and canopy pans,  
 load and transport to disposal site.

0.60

2160.00

\*\*\*\*\*

2565.000 CP-22GAX16"-EMB-WHT

CANOPY PAN 22GA X 16"WIDE  
 EMBOSSED WHITE FINISH

3.26

8361.90

\*\*\*\*\*

400.000 CP-CLIP

CANOPY PAN CLIP

1.24

496.00

\*\*\*\*\*

1 FREIGHT

FREIGHT

800.00

800.00

\*\*\*\*\*

2565 CANI-PAN-INSTALL

INSTALL CANOPY PANS  
 ON EXISTING STRUCTURAL STEEL  
 PRICEPER LINEAL FEET

1.01

2590.65

\*\*\*\*\*

56.000 CANM-UR-42"X1.5-AL-A

CANOPY UPRIGHT 42" H x 24"D  
 x 33" Kicker . Manufactured  
 From 1-1/2" x1-1/2" x3/16"  
 Aluminum Angle

14.75

826.00

\*\*\*\*\*

240.000 CANM-OPG-W

CANOPY OUTSIDE PERIMETER

6.20

1488.00



**Munn Enterprises, Inc.**  
 7712 US Hwy 49 N  
 Hattiesburg, MS 39402  
 800-231-7484  
 Phone (601) 264-7446  
 Fax (601) 264-7449  
 e-mail haroldm@munnenterprises.com

# Contract

Customer No.: CIT100  
 CONTRACT: 41105  
 2

**Sold To: City of Hattiesburg**  
 ATTN: Accounts Payable  
 P.O. Box 1898  
 Hattiesburg, MS 39403

**Ship To: Public Works**  
 1202 James St  
 Hattiesburg, MS 39401

| Date                           | Ship Via                | F.O.B.                                                                                   | Terms                        |
|--------------------------------|-------------------------|------------------------------------------------------------------------------------------|------------------------------|
| 05/01/18                       | MUNN INSTALLATION       | Origin                                                                                   | 50 % Deposit Upon Acceptance |
| PHONE NUMBER<br>(601) 545-4648 | CONTACT<br>Teresa Evans | E-Mail Address<br><a href="mailto:tevans@hattiesburgms.com">tevans@hattiesburgms.com</a> | FAX NUMBER                   |
| Purchase Order Number          | Project Manager         | Required                                                                                 |                              |
| Quantity                       | Howard Munn             | 07/25/18                                                                                 |                              |
| Required   Shipped   B.O.      | Item Number             | Description                                                                              | Unit Price Amount            |

|                                                    |                      |                                                                              |                |
|----------------------------------------------------|----------------------|------------------------------------------------------------------------------|----------------|
| GUTTER .063 WHITE<br>PRICE BY LINEAL FOOT<br>***** |                      |                                                                              |                |
| 80.000                                             | CANM-DOWNSPOUT-W     | 063 WHITE DOWN SPOUT<br>PRICE BY LINEAL FOOT<br>*****                        | 6.96 556.80    |
| 24                                                 | P-P0118              | CHEMCAULK #915 POLAR ICE                                                     | 7.90 189.60    |
| 480.000                                            | AL-ANG-1.5X1.5X.125S | ANGLE 1-1/2"X1-1/2"X1/8"<br>SQ INSIDE CORNER<br>Top and Bottom Rail<br>***** | 1.20 576.00    |
| 4.000                                              | CANM-CORNER-42-W     | 42" H WHITE ACM CORNER FOR<br>CANOPY FASCIA<br>*****                         | 14.16 56.64    |
| 24                                                 | ACM-BLK-WHT-3M51X120 | ACM- BLACK/WHITE<br>*****                                                    | 188.31 4519.44 |
| 56.000                                             | CANI-UR-INSTALL      | INSTALL CANOPY UP RIGHTS<br>32" UP TO 48" X 18G<br>*****                     | 22.50 1260.00  |
| 240                                                | CANI-OPG-GUTTER-INST | INSTALL OPG GUTTER<br>*****                                                  | 6.25 1500.00   |
| 8                                                  | CANI-DOWNSPONT-INST  | INSTALL DOWNSPOUT GUTTER<br>*****                                            | 93.75 750.00   |
| 240                                                | CANI-TOP-RAIL-INST   | INSTALL TOP RAIL FOR<br>FASCIA SYSTEM<br>*****                               | 1.88 451.20    |



**Munn Enterprises, Inc.**  
 7712 US Hwy 49 N  
 Hattiesburg, MS 39402  
 800-231-7484  
 Phone (601) 264-7446  
 Fax (601) 264-7449  
 e-mail haroldm@munnterprises.com

# Contract

Customer No.: CIT100  
 CONTRACT: 41105  
 3

**Sold To: City of Hattiesburg**  
 ATTN: Accounts Payable  
 P.O. Box 1898  
 Hattiesburg, MS 39403

**Ship To: Public Works**  
 1202 James St  
 Hattiesburg, MS 39401

| Date                           | Ship Via                | F.O.B.                                                                                   | Terms                        |             |
|--------------------------------|-------------------------|------------------------------------------------------------------------------------------|------------------------------|-------------|
| 05/01/18                       | MUNN INSTALLATION       | Origin                                                                                   | 50 % Deposit Upon Acceptance |             |
| PHONE NUMBER<br>(601) 545-4648 | CONTACT<br>Teresa Evans | E-Mail Address<br><a href="mailto:tevans@hattiesburgms.com">tevans@hattiesburgms.com</a> |                              | FAX NUMBER  |
| Purchase Order Number          | Project Manager         |                                                                                          | Required                     |             |
| Quantity                       | Howard Munn             |                                                                                          | 07/25/18                     |             |
| Required                       | Shipped                 | B.O.                                                                                     | Item Number                  | Description |
|                                |                         | Unit Price                                                                               | Amount                       |             |

|       |                    |                                                      |        |         |
|-------|--------------------|------------------------------------------------------|--------|---------|
| 240   | CANI-BOT-RAIL-INST | INSTALL BOTTOM RAIL FOR FASCIA SYSTEM                | 1.88   | 451.20  |
| 24    | CANI-FASCIAINSTALL | INSTALL FASCIA ACM 24 TO 42" X 120" ACM FASCIA PANEL | 112.50 | 2700.00 |
| ***** |                    |                                                      |        |         |
| 4     | CANI-PNT-POLES     | PAINT CANOPY POLES                                   | 150.00 | 600.00  |
| ***** |                    |                                                      |        |         |

NOTE: Installation price on illuminated signage is for primary electrical to be at each sign location, if conduit is required to be ran or complete new circuit this will be at additional cost.  
 Also we offer Custom pump reimaging if needed.

\*\*\*\*\*

50% Deposit: \$16,228.39

|                |          |
|----------------|----------|
| Quote subtotal | 30333.43 |
| Quote total    | 30333.43 |

**TERMS- A 50 % Deposit is required upon acceptance of quote and remainder due upon completion of job.**  
**All prices are plus permits at cost plus staff time to obtain permits.**  
**All primary electrical to be furnished to sign location by others and connected by others if not at location at time of installation.**

**Acceptance confirms as an order and is subject to sales condition on attached pages.**

**Munn accepts Visa, Master Card, Discover and American Express. Credit card fees will apply**





**Munn Enterprises, Inc.**  
7712 US Hwy 49 N  
Hattiesburg, MS 39402  
800-231-7484  
Phone (601) 264-7446  
Fax (601) 264-7449  
e-mail haroldm@munnenterprises.com

# Contract

Customer No.: CIT100

CONTRACT: 41105

4

**Sold To: City of Hattiesburg**  
ATTN: Accounts Payable  
P.O. Box 1898  
Hattiesburg, MS 39403

**Ship To: Public Works**  
1202 James St  
Hattiesburg, MS 39401

|                                |                         |                                                                                          |                              |
|--------------------------------|-------------------------|------------------------------------------------------------------------------------------|------------------------------|
| Date                           | Ship Via                | F.O.B.                                                                                   | Terms                        |
| 05/01/18                       | MUNN INSTALLATION       | Origin                                                                                   | 50 % Deposit Upon Acceptance |
| PHONE NUMBER<br>(601) 545-4648 | CONTACT<br>Teresa Evans | E-Mail Address<br><a href="mailto:tevens@hattiesburgms.com">tevens@hattiesburgms.com</a> | FAX NUMBER                   |
| Purchase Order Number          | Project Manager         | Required                                                                                 |                              |
| Quantity                       | Howard Munn             | 07/25/18                                                                                 |                              |
| Required   Shipped   B.O.      | Item Number             | Description                                                                              | Unit Price Amount            |

**Contract prices are valid for 30 days**

**Customer Accepted by:** \_\_\_\_\_

**Munn Manager Accepted by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Date:** \_\_\_\_\_

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 4/27/18  
Date . . . . . 2661 00  
Order Number . . . . .

C & S CANOPY  
PO BOX 526  
CLANTON AL 35046

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W. FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Mail To. . . . .  
Phone Number . . . . . 601 5454512

PRINTED NAME David Thomas

SIGNATURE David Thomas DATE 5-3-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: REPAIRS ON CANOPY/DAMAGE BY STORM

| ITEM DESCRIPTION               | Request Date | QTY  | UM | Unit Price  | Extended Cost | Delivery Date | Expired Date |
|--------------------------------|--------------|------|----|-------------|---------------|---------------|--------------|
|                                |              |      |    |             |               |               |              |
| CANOPY SPECS<br>SEE ATTACHMENT | 04/27/18     | 1.00 | EA | \$35,157.00 |               | TBD           | 5-13-18      |

TOTAL BID PRICE \$35,157.00

C & S Canopy, Inc.  
P.O. Box 526  
Clanton, Al. 35046

205-755-1581  
800-932-4549  
Fax: 205-755-8266

**Quotation / Order Acknowledgement**

**Bill To:** City of Hattiesburg  
Attn: Teresa  
1202 James St.  
Hattiesburg, Ms.

**Job Site:** 1202 James St.  
Hattiesburg, Ms.

**Quote No:** 180051M  
**C/N #1**

**Ph:** 601-545-4545

**Date:** 5/3/18

**NEW FUEL CANOPY:**

Existing 60' x 60' (4) column canopy  
Take down 15 canopy lights and save on site  
Take down and dispose of remaining decking and gutters-Existing steel to remain  
Furnish and Install all new P16, 20-gauge White embossed decking  
Furnish and Install perimeter and tapered gutter system with no fascia  
Clean and paint (4) columns

Delivered and Installed on customer footings **\$35,157.00**

**Tax Not Included**

**Thank You!**  
**Wesley Melton**

Notes: Permits, foundations, electrical and dumpster by owner unless otherwise noted.

Terms: Quote good for 10 days

In consideration of said construction the owner agrees to pay C & S Canopy as follows: 25% upon execution of this order acknowledgement and balance upon completion. Balance due in C & S office 14 days after completion. Finance charges of 1.5% per month will be applied to past due accounts. In the event it is necessary for C & S to employ an attorney, or to file any action to perfect his lien in the event the owner fails to pay in accordance with the terms of this agreement, the owner agrees to pay all costs of collection and reasonable attorney's fees. All legal action will take place in Chilton County, Alabama.

**Accepted by:** \_\_\_\_\_  
**Owner**



**Public Works**

**1202 James St**

**Hattiesburg, MS 39401**

**CANOPY REPLACEMENT SPECIFICATIONS**

- Remove and dispose of existing decking and gutters
- Take down existing canopy lights and save on site
- Install new 60' x 60' canopy on existing columns
- Install white embossed decking and gutter system.
- Paint existing columns.
- Quoted price is not to exceed \$40,000.00.
- Contractor is required to furnish all necessary materials
- Contractor is to provide all labor and necessary equipment

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432

POINT OF CONTACT:

Page 1  
Date 05/04/18  
PO No. 179282  
Req No. 2662

VENDOR MAILING:  
CUSTOM AUTO CREATIONS  
5536 OLD HWY 42  
HATTIESBURG MS 39401

MCGINTY, DESTINY

(601) 5454506

SHIP TO:  
CITY OF HATTIESBURG  
NOT APPLICABLE

VENDOR # 00108576

PROJECT LINE: STRIPING OF 10 NEW UNITS

PROCESSING CODE:

SEND METHOD 0 ( )

Account #

Description

QTY

UM

UNIT COST

TOTAL COST

001100.7400

10.00

EA

650.0000

6,500.00

STRIPING UNITS  
PROCESS OF FULLY STRIPING TEN NEW DODGE CHARGERS 2017.  
THESE VEHICLES WILL BE STRIPES AS THE FOLLOWING:  
REFLECTIVE/CLEAR COAT STRIPING TO INCLUDE A 3 YEAR WARRANTY  
OF PEELS, FADE AND OR MILDEW. MAKE SURE THAT YOUR BUSINESS  
CAN SUPPLY THE STRIPING AND LABOR FOR THE VEHICLES.  
A VEHICLE FOR INSPECTIONS WILL BE AVAILABLE UPON REQUEST.

TOTAL CONTRACT AMOUNT NOT TO EXCEED

6,500.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

CUSTOM AUTO CREATIONS  
5556 OLD HWY 42  
HATTIESBURG MS 39401

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 1  
Date . . . . . 5/02/18  
Order Number . . . . . 2662 00

Mail To . . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
228 W FRONT ST., 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Phone Number . . . 601 5454512

*Jeffery Jackson*  
DATE *5/21/18*

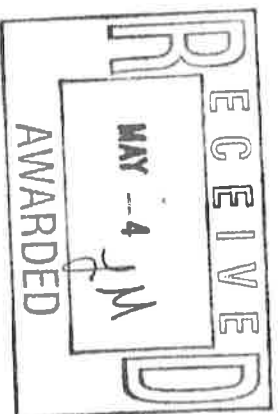
Shipping terms are F.O.B. destination, freight prepaid

TRIPPING OF 10 NEW UNITS

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                              | Request Date | QTY   | UM | Unit Price      | Extended Cost    | Delivery Date  | Expired Date   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|----|-----------------|------------------|----------------|----------------|
| 10 JULY STRIPING TEN NEW DODGE CHARGERS 2017.<br>ES WILL BE STRIPES AS THE FOLLOWING:<br>3 YEAR COAT STRIPING TO INCLUDE A 3 YEAR WARRANTY<br>IDEAR COAT OR MIDEW. MAKE SURE THAT YOUR BUSINESS<br>IDE STRIPING AND LABOR FOR THE VEHICLES.<br>IN INSPECTIONS WILL BE AVAILABLE UPON REQUEST. | 05/02/18     | 10.00 | EA | <i>\$165.00</i> | <i>\$1650.00</i> | <i>5/21/18</i> | <i>8/21/18</i> |

TOTAL BID PRICE *\$1650.00*

*Approved / 5/21/18*  
*5-3-18*



CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORMPage No. 1  
Date 5/02/18  
Order Number 2662 00JVM INC  
AUTO TRIM  
12 DOGWOOD AVE  
HATTIESBURG MS 39401-8312CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Phone Number 601 5454512

PRINTED NAME

James W. Whitford

SIGNATURE

*James W. Whitford*

DATE 5-2-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: STRIPING OF 10 NEW UNITS

## ITEM DESCRIPTION

STRIPING UNITS

PROCESS OF FULLY STRIPING TEN NEW DODGE CHARGERS 2017.

THESE VEHICLES WILL BE STRIPES AS THE FOLLOWING:

REFLECTIVE/CLEAR COAT STRIPING TO INCLUDE A 3 YEAR WARRANTY

OF PELLETS, FADE AND OR MILDEN. MAKE SURE THAT YOUR BUSINESS

CAN SUPPLY THE STRIPING AND LABOR FOR THE VEHICLES.

A VEHICLE FOR INSPECTIONS WILL BE AVAILABLE UPON REQUEST.

| Request Date | QTY   | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|-------|----|------------|---------------|---------------|--------------|
| 05/02/18     | 10.00 | FA | \$665.00   | 0             | 5/week        | 1 year       |

TOTAL BID PRICE \$6,650-

QUOTE REQUEST RESPONSE FORM

Page No. . . . . 5/02/18  
Date . . . . . 2662 00  
Order Number . . . . .

MARION HUBBARD  
dba AMERICAN SIGNS  
6186 US HIGHWAY 49 N  
HATTIESBURG MS 39401-5905

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME

Marion Hubbard dba American Signs

Phone Number . . 601 5454512

SIGNATURE

Marion Hubbard DATE 5/2/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: STRIPING OF 10 NEW UNITS

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                                              | Request Date | QTY   | UM | Unit Price | Extended Cost | Delivery Date                           | Expired Date |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|----|------------|---------------|-----------------------------------------|--------------|
| STRIPING UNITS<br>PROCESS OF FULLY STRIPING TEN NEW DODGE CHARGERS 2017.<br>THESE VEHICLES WILL BE STRIPES AS THE FOLLOWING:<br>REFLECTIVE/CLEAR COAT STRIPING TO INCLUDE A 3 YEAR WARRANTY<br>OF PEELS, FADE AND OR MILDWE. MAKE SURE THAT YOUR BUSINESS<br>CAN SUPPLY THE STRIPING AND LABOR FOR THE VEHICLES.<br>A VEHICLE FOR INSPECTIONS WILL BE AVAILABLE UPON REQUEST. | 05/02/18     | 10.00 | EA | \$1095.00  | \$10,950.00   | from 1 week to 1 mo.<br>4000 00<br>cost |              |

TOTAL BID PRICE \$10,950.00



BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 05/08/18  
PO No. 179342  
Req No. 2663

VENDOR MAILING:  
ALLIANCE BUS GROUP INC  
4741 I 55 S  
JACKSON MS 39212-5532

HALL, STEPHANIE  
MINUTE BOOK # PENDING  
VENDOR # 00093602

(601) 5454675  
SHIP TO :  
CITY OF HATTIESBURG  
HUB CITY TRANSIT  
1419 WEST PINE ST  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: FORD TRANSIT ADA VAN FOR HUB CITY TRANSIT

SEND METHOD 1 (601)5020546

| Account #   | Description                                                                                                                                              | QTY  | UM | UNIT COST   | TOTAL COST |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|------------|
| 073570.7400 | FORD TRAN ADA VAN<br>VAN SPECS - CURRENT YEAR<br>MAKE: FORD TRANSIT / MODEL: ADA VAN / FUEL: GAS<br>AMBULATORY CAPACITY: 5 + DRIVER - 6<br>WHEELCHAIR: 2 | 1.00 | EA | 49,756.0000 | 49,756.00  |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

49,756.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

43530

ALLIANCE BUS GROUP INC  
4741 I 55 S  
JACKSON MS 39212 5532

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Mail To

CITY OF HATTIESBURG  
BUS DIVISION  
ATTENTION: ST. LIND FROM  
HATTIESBURG MS 39401

Page No 1  
Date 5/04/18  
Order Number 2663 00

PRINTED NAME

SPR WELMER

SIGNATURE

5/4/18

Phone Number . 601 5454512

Shipping terms are F.O.B. destination. freight prepaid

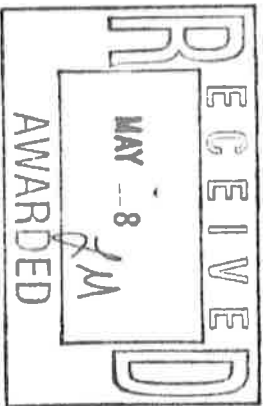
PROJECT LINE: FORD TRANSIT ADA VAN FOR HUB CITY TRANSIT

ITEM DESCRIPTION

FORD TRANSIT ADA VAN  
VAN SECS  
MAKE: FORD TRANSIT / MODEL: ADA VAN / FUEL GAS  
CAPACITY: 5 + DRIVER - 6  
WHEELCHAIR: 2

| Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|------|----|------------|---------------|---------------|--------------|
| 05/04/18     | 1.00 | EA | 44,756.00  | 44,756.00     | 5/4/18        | 5/4/19       |

TOTAL BID PRICE 44,756.00



43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 5/04/18  
Date - . . . . 2663 00  
Order Number . . . .

MOBILITY TRANS  
42000 KOPEERNICK, SUITE A  
CANTON MI 48187

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Phone Number . . 601 5454512

PRINTED NAME Robert Barnes

SIGNATURE [Signature]

DATE 5/5/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: FORD TRANSIT ADA VAN FOR HUB CITY TRANSIT

| ITEM DESCRIPTION                                |  | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|-------------------------------------------------|--|--------------|------|----|------------|---------------|---------------|--------------|
| FORD TRAN ADA VAN                               |  | 05/04/18     | 1.00 | EA | 159,583    |               | 11/9/18       | 6/8/18       |
| VAN SPECS - CURRENT YEAR                        |  |              |      |    |            |               |               |              |
| MAKE: FORD TRANSIT / MODEL: ADA VAN / FUEL: GAS |  |              |      |    |            |               |               |              |
| AMBULATORY CAPACITY: 5 + DRIVER - 6             |  |              |      |    |            |               |               |              |
| WHEELCHAIR: 2                                   |  |              |      |    |            |               |               |              |

TOTAL BID PRICE 159,583

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 05/10/18  
PO No. 179463  
Req No. 2664

VENDOR MAILING:  
HOTSY OF MS  
5163 HWY 49  
HATTIESBURG MS 39401

HALL, STEPHANIE  
MINUTE BOOK # PENDING  
VENDOR # 90109414  
(601) 5454675

SHIP TO :  
CITY OF HATTIESBURG  
HUB CITY TRANSIT  
1419 WEST PINE ST  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: 965B HOT WATER TRAILBLAZER TRAILER UNIT - HUB CITY TRANSIT

| Account #   | Description                                                                                                                                        | QTY  | UM | UNIT COST  | TOTAL COST |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|------------|
| 073570.7399 | TRAILER UNIT<br>965B HOT WATER TRAILBLAZER TRAILER UNIT<br>3 GPM AT 3000 PSI UNIT / 9 HORSE HONDA MOTOR<br>DIESEL FIRED BURNER<br>HUB CITY TRANSIT | 1.00 | EA | 6,482.9900 | 6,482.99   |
| 073570.7399 | POLY TANK<br>200 GALLON POLY TANK                                                                                                                  | 1.00 | EA | 375.0000   | 375.00     |
| 073570.7399 | TANK PLUMBING KIT                                                                                                                                  | 1.00 | EA | 150.0000   | 150.00     |
| 073570.7399 | MOUNTING/PLUMB KIT<br>HOSE REEL MOUNTING AND PLUMBING KIT                                                                                          | 1.00 | EA | 250.0000   | 250.00     |
| 073570.7399 | HOSE REEL<br>3/8" X 200 HOSE REEL                                                                                                                  | 1.00 | EA | 380.0000   | 380.00     |
| 073570.7399 | ASSEMBLY                                                                                                                                           | 1.00 | EA | 200.0000   | 200.00     |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

7,837.99

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

43530

HOTSY OF MS  
5163 HET 40  
HATTIESBURG MS 39401

QUOTE REQUEST RESPONSE FORM

Mail To

CITY OF HATTIESBURG  
ENGINEERING DIVISION  
220 E. FRONT ST. 2ND FLOOR  
PO BOX 11804  
HATTIESBURG MS 39401

Date  
Order Number

5/04/18  
2164 00

Phone Number (601) 5454512

PRINTED NAME Tim Crosby

SIGNATURE Tim Crosby

DATE 5/17/18

Shipping terms are F.O.B. Destination. Freight prepaid

PROJECT LINE 0000 HOT WATER TRAILER/PLATE TRAILER UNIT - MR CITY TRANSIT

ITEM DESCRIPTION

Request  
Date

QTY

EA

Unit  
Price

Extended  
Cost

Delivery  
Date

Expire  
Date

TRAILER UNIT  
3000 GALLON POLY TANK  
3000 GALLON POLY TANK  
MR CITY TRANSIT

05/04/18

1.00 EA

375.00

05/04/18

1.00 EA

150.00

05/04/18

1.00 EA

250.00

05/04/18

1.00 EA

380.00

05/04/18

1.00 EA

200.00

TOTAL BID PRICE \$1837.00

ASSEMBLY

3/8" X 200 HOSE REEL

SPRINKLING/PISTON KIT  
HOSE REEL EXHAUSTING AND PLUMBING KIT

TANK PLUMBING KIT

PUMP TANK  
200 GALLON POLY TANK

5-10-18



43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORMPage No. 1  
Date 5/04/18  
Order Number 2664 00TRUCKERS SUPPLY COMPANY  
PO BOX 5164  
MERIDIAN MS 39302-5164Mail To. . . . .  
CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 N FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Phone Number . . 601 5454512

PRINTED NAME

Dave Carr

SIGNATURE

*[Signature]*

DATE 5.4.18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: 96SB HOT WATER TRAILBLAZER TRAILER UNIT - HUB CITY TRANSIT

| ITEM DESCRIPTION                                                                                                                                   | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
| TRAILER UNIT<br>96SB HOT WATER TRAILBLAZER TRAILER UNIT<br>3 GPM AT 3000 PSI UNIT / 9 HORSE HONDA MOTOR<br>DIESEL FIRED BURNER<br>HUB CITY TRANSIT | 05/04/18     | 1.00 | EA | 7695.00    | 7695.00       | 6-15-18       |              |
| POLY TANK<br>200 GALLON POLY TANK                                                                                                                  | 05/04/18     | 1.00 | EA | 300.00     | 300.00        | 6-15-18       |              |
| TANK PLUMBING KIT                                                                                                                                  | 05/04/18     | 1.00 | EA | 120.00     | 120.00        | 6-15-18       |              |
| MOUNTING/PLUMB KIT<br>HOSE REEL MOUNTING AND PLUMBING KIT                                                                                          | 05/04/18     | 1.00 | EA | 250.00     | 250.00        | 6-15-18       |              |
| HOSE REEL<br>3/8" X 200 HOSE REEL                                                                                                                  | 05/04/18     | 1.00 | EA | 380.00     | 380.00        | 6-15-18       |              |
| ASSEMBLY                                                                                                                                           | 05/04/18     | 1.00 | EA | 250.00     | 250.00        | 6-15-18       |              |
| TOTAL BID PRICE                                                                                                                                    |              |      |    |            | \$8995.00     |               |              |

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 05/22/18  
PO No. 179736  
Req No. 2659

VENDOR MAILING:  
MAX MULTIMEDIA & CABLING SOLUTIONS  
2000 W PINE ST  
HATTIESBURG MS 39401-7562

HALL, STEPHANIE  
MINUTE BOOK # PENDING  
VENDOR # 00090131  
(601) 5454675

SHIP TO :  
HBURG TRAIN DEPOT  
308 NEWMAN ST  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: TRAIN DEPOT BALLROOM AUDIO SYSTEM REPAIRS

SEND METHOD 1 (601)5452669

| Account #   | Description                                                                                                    | QTY  | UM | UNIT COST   | TOTAL COST |
|-------------|----------------------------------------------------------------------------------------------------------------|------|----|-------------|------------|
| 001093.6399 | AUDIO SYSTEM REPAIR<br>LABOR, MATERIALS, CABLING AND EQUIPMENT FOR AUDIO SYSTEM<br>REPAIRS - HBURG TRAIN DEPOT | 1.00 | EA | 18,899.0000 | 18,899.00  |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

18,899.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAE EATON  
CITY CLERK

43630

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 4/27/18  
Date . . . . . 2659  
Order Number . . . . . 00

MAY MULTIMEDIA & CABLING  
2000 W PINE ST  
HATTIESBURG MS 39401-7562

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME MAY MULTIMEDIA

SIGNATURE [Signature] DATE 5-14-18

Shipping terms are F.O.B. destination, freight prepaid

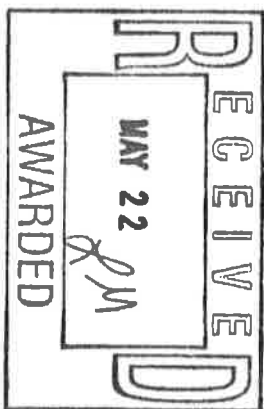
Phone Number . . . 601 5454512

PROJECT LINE: TRAIN DEPOT BALLROOM AUDIO SYSTEM REPAIRS

| ITEM DESCRIPTION                                                                                              | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date        |
|---------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|---------------------|
| AUDIO SYSTEM REPAIR<br>LABOR MATERIALS CABLING AND EQUIPMENT FOR AUDIO SYSTEM<br>REPAIRS - HENRIE TRAIN DEPOT | 04/26/18     | 1.00 | EA |            |               | 2 weeks       | 5600 hrs<br>90 days |

TOTAL BID PRICE 8899.00

[Signature]  
5-21-18





43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 4/27/18  
Date . . . . . 2659 00  
Order Number . . . . .

CARL D MCQUAGGE  
2000 W PINE ST  
HATTIESBURG MS 39401-7562

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME McQuagge Productions

Phone Number . . 601 5454512

SIGNATURE [Signature] DATE 5-14-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: TRAIN DEPOT BALLROOM AUDIO SYSTEM REPAIRS

| ITEM DESCRIPTION                                                                                               | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date    | Expired Date |
|----------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|------------------|--------------|
| AUDIO SYSTEM REPAIR<br>LABOR, MATERIALS, CABLING AND EQUIPMENT FOR AUDIO SYSTEM<br>REPAIRS - HBURG TRAIN DEPOT | 04/26/18     | 1.00 | EA | 19,033.50  | 3 weeks       | good for 60 days |              |

TOTAL BID PRICE 19,033.50

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 05/24/18  
PO No. 179822  
Req No. 2666

VENDOR MAILING:  
INDUSTRIAL CHEMICALS INC  
PO BOX 733305  
DALLASS TX 75373-3305

WAGONER, ROBIN  
MINUTE BOOK # PENDING  
VENDOR # 00013714  
(601) 5454630

SHIP TO :  
CITY OF HATTIESBURG  
WATER PLANT #2  
900 JAMES STREET  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: LIME FOR WATERPLANTS

SEND METHOD 1 (205)9780485

| Account #   | Description                                                                     | QTY  | UM | UNIT COST  | TOTAL COST |
|-------------|---------------------------------------------------------------------------------|------|----|------------|------------|
| 009673.5130 | LIME (50#BAGS)<br>LIME (50#BAGS) --- 1,000 BAGS --- 50BAGS/PALLET FOR 20PALLETS | 1.00 | EA | 9,000.0000 | 9,000.00   |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

9,000.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAE EATON  
CITY CLERK

43530

INDUSTRIAL CHEMICALS INC  
PO BOX 733305  
DALLAS TX 75373-3305

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No: 1  
Date: 5/09/18  
Order Number: 2666 00

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Mail To: . . . . .

Phone Number . . 601 5454512

PRINTED NAME Robin Hood

SIGNATURE [Signature]

DATE 5/22/18

Shipping terms are F.O.B. destination, freight prepaid

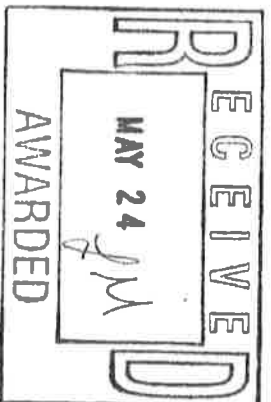
PROJECT LINE: LINE FOR WATERPLANTS

| ITEM DESCRIPTION                                            | Request Date | QTY     | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|-------------------------------------------------------------|--------------|---------|----|------------|---------------|---------------|--------------|
| LINE (50#BAGS) -- 1,000 BAGS -- 50BAGS/PALLET FOR 20PALLETS | 05/08/18     | 1000.00 | EA | 9.00/each  | 9.000         | TKD           |              |

TOTAL BID PRICE 9.000 23

[Signature]

5/24/18



43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 1  
Date . . . . . 5/10/18  
Order Number . . . . . 2666 00

IDEAL CHEMICAL & SUPPLY C  
4025 AIR PARK STREET  
MEMPHIS TN 38118

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W. FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME Cindy Yearout

Phone Number . . 601 5454512

SIGNATURE Cindy Yearout DATE 5/22/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: LIME FOR WATERPLANTS

| ITEM DESCRIPTION                                            | Request Date | QTY     | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|-------------------------------------------------------------|--------------|---------|----|------------|---------------|---------------|--------------|
| LIME (50#BAGS) -- 1,000 BAGS -- 50BAGS/PALLET FOR 20PALLETS | 05/08/18     | 1000.00 | EA | .19        | 190.00        | 5/30/18       | 6/30/18      |

Fuel and Insurance Surcharge Delivery Fee \$ 35.00 (FIS)

TOTAL BID PRICE 9,535

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 05/31/18  
PO No. 180005  
Req No. 2668

VENDOR MAILING:  
TIMOTHY D JACKSON  
dba AFFORDABLE EMERGENCY LIGHTS SERVICE  
5556 OLD HWY 42  
HATTIESBURG MS 39401-6339

MCGINTY, DESTINY  
MINUTE BOOK # PENDING  
VENDOR # 00086542  
(601) 5454506

SHIP TO :  
CITY OF HATTIESBURG  
NOT APPLICABLE

PROCESSING CODE:

PROJECT LINE: INSTALL PROVIDED EQUIPMENT IN 10 NEW UNITS

SEND METHOD 1 (769)3907228

| Account # | Description | QTY | UM | UNIT COST | TOTAL COST |
|-----------|-------------|-----|----|-----------|------------|
|-----------|-------------|-----|----|-----------|------------|

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |    |            |           |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----|------------|-----------|
| 001100.7400 | INSTALL EQUIPMENT<br>INSTALL THE FOLLOWING LISTED EQUIPMENT IN UNIT#20843, 20844<br>20845, 20846, 20847, 20848, 20849, 20850, 20851 & 20852:<br>SOUND OFF LIGHTING<br>FRONT GRILL<br>CENTER CONSOLE<br>COMPUTERS, PRINTER AND CRADLE POINT<br>PARTITIONS (CAGE)<br>WEAPON MOUNT (TRUNK)<br>WATCHGUARD VIDEO SYSTEM TO INCLUDE BODY CHARGER<br>STALKER RADAR TO INCLUDE CONNECTION TO WATCHGUARD SYSTEM<br>IN ADDITION, THE INSTALLER WILL PROVIDE ADDITIONAL WIRES<br>FUSES FOR INSTALLS IF NEEDED. A THREE(3) YEAR WARRANTY FOR<br>INSTALLS AND ELECTRICAL ISSUES OF WIRES, FUSES, BATTERIES<br>AND ETC. THE INSTALLER WILL TAKE RESPONSIBILITY OF EQUIPMEN<br>T INSTALLED UNLESS A RECALL OR ISSUES IS WITH THE EQUIPMENT.<br>*A VEHICLE AND EQUIPMENT IS AVAILABLE FOR INSPECTION UPON<br>REQUEST*<br>*LISTED EQUIPMENT WILL BE PROVIDED BY POLICE DEPARTMENT* | 10.00 | EA | 1,360.0000 | 13,600.00 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----|------------|-----------|

TOTAL CONTRACT AMOUNT NOT TO EXCEED

13,600.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER, PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAE EATON  
CITY CLERK

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

TIMOTHY D JACKSON  
dba AFFORDABLE EMERGENCY  
5556 OLD HWY 42  
HATTIESBURG MS 39401-6839

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST 2ND FLOOR  
HATTIESBURG MS 39401

Mail To . . . . .

Phone Number . . 601 5454512

PRINTED NAME Timothy Jackson  
SIGNATURE [Signature] DATE 5/24/18

Shipping terms are F.O.B. destination, freight prepaid

Page No. . . . . 5/22/18  
Date . . . . . 2068 00  
Order Number . . . . .

PROJECT LINE: INSTALL PROVIDED EQUIPMENT IN 10 NEW UNITS

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Request Date | QTY   | Unit Price   | Extended Cost | Delivery Date | Expired Date |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|--------------|---------------|---------------|--------------|
| INSTALL EQUIPMENT<br>INSTALL THE FOLLOWING LISTED EQUIPMENT IN UNIT#20843, 20844,<br>20845, 20846, 20847, 20848, 20849, 20850, 20851 & 20852:<br>20843, 20846, 20847, 20848, 20849, 20850, 20851 & 20852:<br>FRONT GRILL LIGHTING<br>FRONT CONSOLE<br>CENTER CONSOLE<br>COMPUTER MONITOR AND CRADLE POINT<br>PARTITIONS (PRICE)<br>WEAPON MOUNT (VIDEO SYSTEM TO INCLUDE BODY CHARGER<br>WATCHGUARD VIDEO TO INCLUDE CONNECTION TO WATCHGUARD SYSTEM<br>STALKER RADAR TO INCLUDE CONNECTION TO WATCHGUARD SYSTEM<br>IN ADDITION THE INSTALLER WILL PROVIDE ADDITIONAL WIRES FOR<br>FUSES FOR INSURANCE ISSUES OF WIRELESS, BATTERIES<br>INSTALLS FOR ELECTRICAL ISSUES OF WIRELESS, BATTERIES<br>AND ETC THE INSTALLER WILL TAKE RESPONSIBILITY OF EQUIPMENT<br>AND ETC THE INSTALLER WILL TAKE RESPONSIBILITY OF EQUIPMENT<br>A VEHICLE AND EQUIPMENT IS AVAILABLE FOR INSPECTION UPON<br>REQUEST<br>*LISTED EQUIPMENT WILL BE PROVIDED BY POLICE DEPARTMENT* | 05/22/18     | 10.00 | EA \$1360.00 | 13600.00      | 10/24/18      | 10/24/18     |

TOTAL BID PRICE \$13,600.00

[Signature]  
5-31-2018  
[Signature]  
5-31-18

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 5/22/18  
Date . . . . . 2568 00  
Order Number . . . . .

PATTERSON AUTO ELECTRIC  
5436 HIGHWAY 42  
HATTIESBURG MS 39401-1610

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 N. FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Mail To. . . . .

Phone Number . . 601 5454512

PRINTED NAME Blake Patterson

SIGNATURE Blake Patterson DATE 5/25/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: INSTALL PROVIDED EQUIPMENT IN 10 NEW UNITS

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Request Date | QTY   | UM | Unit Price | Extended Cost | Delivery Date   | Expired Date |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|----|------------|---------------|-----------------|--------------|
| INSTALL EQUIPMENT<br>INSTALL THE FOLLOWING LISTED EQUIPMENT IN UNIT#20843, 20844<br>20845, 20846, 20847, 20848, 20849, 20850, 20851 & 20852:<br>SOUND DEET LIGHTING<br>FRONT GRILL<br>CENTER CONSOLE<br>COMPUTERS, PRINTER AND CABLE POINT<br>PARTITIONS (CAGE)<br>WEAPON MOUNT (TRUCK)<br>WATCHWARD VIDEO SYSTEM TO INCLUDE BODY CHARGER<br>STALKER RADAR TO INCLUDE CONNECTION TO WATCHWARD SYSTEM<br>IN ADDITION THE INSTALLER WILL PROVIDE ADDITIONAL WIRES<br>FUSES FOR INSTALLS IF NEEDED A THREE(3) YEAR WARRANTY FOR<br>INSTALLS AND ELECTRICAL ISSUES OF FIRES BATTERIES<br>AND ETC. THE INSTALLER WILL HAVE RESPONSIBILITY OF EQUIPMENT<br>-A VEHICLE AND EQUIPMENT IS AVAILABLE FOR INSPECTION UPON<br>REQUEST.<br>-LISTED EQUIPMENT WILL BE PROVIDED BY POLICE DEPARTMENT. | 05/22/18     | 10.00 | EA | 1499.00    | 14,990        | 30 Days 12-1-18 |              |

TOTAL BID PRICE 14,990.00

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORMPage No. . . . . 1  
Date . . . . . 5/22/18  
Order Number . . . . . 2668 00FLEET SAFETY EQUIPMENT IN  
2188 SPICER COVE  
MEMPHIS TN 38134CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401PRINTED NAME David Lyle

Phone Number . . 601 5454512

SIGNATURE David Lyle DATE 5/24/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: INSTALL PROVIDED EQUIPMENT IN 10 NEW UNITS

## ITEM DESCRIPTION

Request  
Date

QTY

UM

Unit  
PriceExtended  
CostDelivery  
DateExpired  
Date

## INSTALL EQUIPMENT

INSTALL THE FOLLOWING LISTED EQUIPMENT IN UNIT#20843, 20844,  
20845, 20846, 20847, 20848, 20849, 20850, 20851 & 20852:  
SOUND OFF LIGHTING  
FRONT GRILL  
CENTER CONSOLE  
COMPUTERS PRINTER AND CRADLE POINT  
PARTITIONS (CAGE)  
WEAPON MOUNT (TRUNK)  
WATCHGUARD VIDEO SYSTEM TO INCLUDE BODY CHARGER  
STALKER RADAR TO INCLUDE CONNECTION TO WATCHGUARD SYSTEM  
IN ADDITION, THE INSTALLER WILL PROVIDE ADDITIONAL WIRES  
FUSES FOR INSTALLS IF NEEDED. A THREE(3) YEAR WARRANTY FOR  
INSTALLS AND ELECTRICAL ISSUES OF WIRES, FUSES, BATTERIES  
AND ETC. THE INSTALLER WILL TAKE RESPONSIBILITY OF EQUIPMENT  
AND INSTALLED UNLESS A RECALL OR ISSUES IS WITH THE EQUIPMENT.  
A VEHICLE AND EQUIPMENT IS AVAILABLE FOR INSPECTION UPON  
REQUEST.

05/22/18

10.00

EA

1785.00

17850

6/11/18

7/30/18

\*LISTED EQUIPMENT WILL BE PROVIDED BY POLICE DEPARTMENT\*

TOTAL BID PRICE 17,850.00



QUOTE REQUEST RESPONSE FORM

Date: 5/22/18  
Order Number: 2668 00

JVM INC  
AUTO TRIM  
12 DOGWOOD AVE  
HATTIESBURG MS 39404-8312

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Phone Number . 601 5454512

PRINTED NAME James H. Ford

SIGNATURE [Signature] DATE 5-29-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: INSTALL PROVIDED EQUIPMENT IN 10 NEW UNITS

ITEM DESCRIPTION

INSTALL EQUIPMENT  
INSTALL THE FOLLOWING LISTED EQUIPMENT IN UNIT#20843, 20844  
20845, 20846, 20847, 20848, 20849, 20850, 20851 & 20852:  
SOUND OFF LIGHTING  
FRONT GRILL  
CENTER CONSOLE  
COMPUTERS, PRINTER AND CRADLE POINT  
PARTITIONS (CAGE)  
WEAPON MOUNT (TRUNK)  
WATCHGUARD VIDEO SYSTEM TO INCLUDE BODY CHARGER  
STALKER RADAR TO INCLUDE CONNECTION TO WATCHGUARD SYSTEM  
IN ADDITION THE INSTALLER WILL PROVIDE ADDITIONAL WIRES  
FUSES FOR INSTALLS IF NEEDED A THREE(3) YEAR WARRANTY FOR  
INSTALLS AND ELECTRICAL ISSUES OF WIRES, FUSES, BATTERIES  
AND ETC. THE INSTALLER WILL TAKE RESPONSIBILITY OF EQUIPMEN  
T INSTALLED UNLESS A RECALL OR ISSUES IS WITH THE EQUIPMENT.  
\*A VEHICLE AND EQUIPMENT IS AVAILABLE FOR INSPECTION UPON  
REQUEST.

| Request Date | QTY   | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|-------|----|------------|---------------|---------------|--------------|
| 05/22/18     | 10.00 | EA | \$1800.00  |               | 7 weeks       | 30 days      |

\*LISTED EQUIPMENT WILL BE PROVIDED BY POLICE DEPARTMENT\*

TOTAL BID PRICE \$18,000.00

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432

Page 1  
Date 06/07/18

POINT OF CONTACT:

PO No. 180227  
Req No. 2670

VENDOR MAILING:  
HUBCITY GRAPHIX  
dba FASTSIGNS OF HATTIESBURG  
2902 HARDY ST. SUITE 60  
HATTIESBURG MS 39401

HALL, STEPHANIE  
MINUTE BOOK # PENDING  
VENDOR # 00107678  
(601) 5454675

SHIP TO :  
CITY OF HATTIESBURG  
HUB CITY TRANSIT  
1419 WEST PINE ST  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: BUS STOP SIGNAGE - HUB CITY TRANSIT

SEND METHOD 1 ( )

| Account # | Description | QTY | UM | UNIT COST | TOTAL COST |
|-----------|-------------|-----|----|-----------|------------|
|-----------|-------------|-----|----|-----------|------------|

|             |                                                                                                                                                                                                                                                                                                                                       |        |    |         |           |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---------|-----------|
| 073570.6150 | BUS STOP SIGNS<br>12"W X 18"H, ALUMINUM GRADE SIGN, RETROREFLECTIVE USING<br>HIGH INTENSITY PRISMATIC SHEETING, ROUNDED CORNERS,<br>MINIMUM THICKNESS: 1/8" OR 3.175MM, PRE-DRILLED HOLES<br>PRE-DRILLED HOLES IN EACH SIGN CENTERED 1" FROM TOP & 1"<br>FROM BOTTOM, PROOF MUST BE SENT BEFORE PRINTING<br>GRAPHIC FOR SIGN ATTACHED | 450.00 | EA | 28.4700 | 12,811.50 |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---------|-----------|

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |    |        |          |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|--------|----------|
| 073570.6150 | BUS ROUTE SIGNS<br>12"W X 3"H, ALUMINUM GRADE SIGN, RETROREFLECTIVE USING<br>HIGH INTENSITY PRISMATIC SHEETING, ROUNDED CORNERS,<br>MINIMUM THICKNESS: 1/8" OR 3.175MM, PRE-DRILLED HOLES<br>PRE-DRILLED HOLES IN EACH SIGN CENTERED 1" FROM TOP & 1"<br>FROM BOTTOM, PROOF MUST BE SENT BEFORE PRINTING<br>DELIVERY BY JUNE 22, 2018<br>MESSAGE AREA FOR SIGNS IS SINGLE, SOLID COLOR-QUANTITIES:<br>BLUE: 110, PURPLE: 85, ORANGE: 65, BROWN: 65, RED: 70<br>GOLD: 35, GREEN: 35 | 465.00 | EA | 9.3000 | 4,324.50 |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|--------|----------|

TOTAL CONTRACT AMOUNT NOT TO EXCEED

17,136.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

## London, Sylvester

---

**From:** Ellard, Andrew  
**Sent:** Thursday, June 07, 2018 2:40 PM  
**To:** Hall, Stephanie; London, Sylvester  
**Cc:** Jones, Ann  
**Subject:** Two-Quote - Bus Stop Signage

Stephanie,  
Please include this justification along with the signed quote from Fast Signs.

Although Fast Signs was not the low quote, of the three quotes received, it was the only one that complied with the delivery requirement. The time line on this purchase is critical, so the other delivery time lines were not an option for us.

Thanks,

Andrew Ellard  
Director of Urban Development

City of Hattiesburg  
200 Forrest Street / PO Box 1898  
Hattiesburg, MS 39401 / 39403

601.545.4609 (office)  
601.520.8504 (cell)  
AEllard@HattiesburgMS.com

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 6/04/18  
Date . . . . . 2570 00  
Order Number . . . . .

CITY GRAPHIX  
dba FASTSIGNS OF HATTIESBURG  
2902 HARDY ST. SUITE 60  
HATTIESBURG MS 39401

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W. FRONT ST. 2ND FLOOR  
PO BOX 1596  
HATTIESBURG MS 39401

Phone Number . . . 601 5454512

PRINTED NAME Aminda Blackburn  
SIGNATURE Aminda Blackburn DATE 6/6/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: BUS STOP SIGNAGE - HUB CITY TRANSIT

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                   | Request Date | QTY    | TM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------|----|------------|---------------|---------------|--------------|
| BUS STOP SIGNS<br>12" X 18" ALUMINUM GRADE SIGN NETWORK-REFLECTIVE USING<br>HIGH INTENSITY PRISMATIC SHEETING. ROUNDED CORNERS.<br>MOUNTED WITH 1/2" X 3/16" ALUMINUM PRE-DRILLED HOLES<br>PRE-DRILLED HOLES IN EACH SIGN CENTERED 1" FROM TOP & 1"<br>FROM BOTTOM. SIGN MUST BE SENT BEFORE PRINTING<br>GRAPHIC FOR SIGN ATTACHED | 06/04/18     | 450.00 | EA | 28.47      | 12,811.35     | 6/22/18       | 6/22/18      |

|                                                                                                                                                                                                                                                                                                                                                                                                                               |          |        |    |      |         |         |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|----|------|---------|---------|---------|
| BUS ROUTE SIGNS<br>12" X 30" ALUMINUM GRADE SIGN NETWORK-REFLECTIVE USING<br>HIGH INTENSITY PRISMATIC SHEETING. ROUNDED CORNERS.<br>MOUNTED WITH 1/2" X 3/16" ALUMINUM PRE-DRILLED HOLES<br>PRE-DRILLED HOLES IN EACH SIGN CENTERED 1" FROM TOP & 1"<br>FROM BOTTOM. SIGN MUST BE SENT BEFORE PRINTING<br>MESSAGE AREA WITH SIGNS IS SINGLE. SOLID COLOR-QUANTITIES:<br>WHITE: 110, GREEN: 35, ORANGE: 65, BROWN: 65, RED: 70 | 06/04/18 | 465.00 | EA | 9.30 | 4324.53 | 6/22/18 | 6/22/18 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|----|------|---------|---------|---------|

WANTING HARDWARE  
MOUNTING HARDWARE IN A SUFFICIENT QUANTITY F  
(BUS STOP AND ROUTE ROUTE DESIGNATION SIGNS)

|                 |         |    |      |          |         |         |
|-----------------|---------|----|------|----------|---------|---------|
| 06/04/18        | 1830.00 | EA | 0.83 | 1521.91  | 6/22/18 | 6/22/18 |
| TOTAL BID PRICE |         |    |      | 18657.82 |         |         |

*Accepted.*  
*[Signature]*  
6-7-2018  
*[Signature]*  
6/17/18

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORMPage No. . . . . 6/04/18  
Date . . . . . 2670 00  
Order Number . . . . .SPEEDY PRINTING & SIGNS  
1002 HARDY ST  
HATTIESBURG MS 39401-4164Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401PRINTED NAME William T. Leggett

Phone Number . . 601 5454512

SIGNATURE William T. Leggett DATE 06-06-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: BUS STOP SIGNAGE - HUB CITY TRANSIT

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                   | Request Date | QTY     | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------|----|------------|---------------|---------------|--------------|
| BUS STOP SIGNS<br>12"W X 18"H. ALUMINUM GRADE SIGN, RETROREFLECTIVE USING HIGH INTENSITY PRISMATIC SHEETING, ROUNDED CORNERS, MINIMUM THICKNESS: 1/8" OR 3.175MM, PRE-DRILLED HOLES FROM BOTTOM. PROOF MUST BE SENT BEFORE PRINTING GRAPHIC FOR SIGN ATTACHED                                                                                                                                      | 06/04/18     | 450.00  | EA | \$23.13    | \$10,408.50   | 16-22         | 07-05-18     |
| Includes 4-color process (full color) art and overlamination on each sign for longer life                                                                                                                                                                                                                                                                                                          |              |         |    |            |               |               |              |
| BUS ROUTE SIGNS<br>12"W X 3"H. ALUMINUM GRADE SIGN, RETROREFLECTIVE USING HIGH INTENSITY PRISMATIC SHEETING, ROUNDED CORNERS, MINIMUM THICKNESS: 1/8" OR 3.175MM, PRE-DRILLED HOLES FROM BOTTOM. PROOF MUST BE SENT BEFORE PRINTING DELIVERY BY JUNE 22, 2018 MESSAGE AREA FOR SIGNS IS SINGLE, SOLID COLOR-QUANTITIES: BLUE: 110, PURPLE: 85, ORANGE: 65, BROWN: 65, RED: 70, GOLD: 35, GREEN: 35 | 06/04/18     | 465.00  | EA | \$4.82     | \$2,241.30    | 16-22         | 07-05-18     |
| MOUNTING HARDWARE<br>MOUNTING HARDWARE IN A SUFFICIENT QUANTITY FOR (BUS STOP AND COLOR ROUTE DESIGNATION SIGNS)                                                                                                                                                                                                                                                                                   |              |         |    |            |               |               |              |
| Hardware includes:<br>Bolt - Hex head 5/16" x 18 x 2 1/2"<br>Nut - Hex 5/16"-18<br>Washer - 5/16"                                                                                                                                                                                                                                                                                                  |              |         |    |            |               |               |              |
|                                                                                                                                                                                                                                                                                                                                                                                                    | 06/04/18     | 1830.00 | EA | \$0.39     | \$713.70      | 16-22         | 07-05-18     |
| TOTAL BID PRICE                                                                                                                                                                                                                                                                                                                                                                                    |              |         |    |            |               | \$13,363.50   |              |

CITY OF HATTIESBURG  
NIGHT PROTEST RESPONSE FORM

Page No. . . . . 1  
Date - . . . . 6/04/18  
0-3- Numb- 3570 00

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Phone Number : 601 5454512

PRINTED NAME SIGNS First

Phone Number : 601 5454512

SIGNATURE [Signature] DATE 2/2/2010

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: BUS STOP SIGNAGE - HUB CITY TRANSIT

[illegible]

BUS ROUTE SIGNS  
12" W X 3' H ALUMINUM GRADE SIGN RETROREFLECTIVE USING  
HIGH INTENSITY PRISMATIC SHEETING ROUNDED CORNERS  
MINIMUM THICKNESS 1/8" OR 3.175MM. PRE-DRILLED HOLES  
PRE-DRILLED HOLES IN EACH SIGN CENTERED 1" FROM TOP & 1"  
FROM BOTTOM. PROOF MUST BE SENT BEFORE PRINTING  
DELIVERY BY JUNE 22 2018  
MESSAGE AREA FOR SIGNS IS SINGLE, SOLID COLOR-QUANTITIES:  
BLUE: 110, GREEN: 85, ORANGE: 65, BROWN: 65, RED: 70  
GOLD: 35, PURPLE: 85, PINK: 65, SILVER: 65, WHITE: 65, YEL:

06/04/18

465.00 EA

732.84

\$15270.62

21 working 7/6/2018

MOUNTING HARDWARE  
MOUNTING HARDWARE IN A SUFFICIENT QUANTITY FOR  
(BUS STOP AND COLOR ROUTE DESIGNATION SIGNS)

06/04/18

1830.00

## EA

\$0.67

\$1226.10

$$\begin{array}{r} 21 \text{ weeks} \\ 7/6/2018 \end{array}$$
TOTAL BID PRICE 18,782.72

UPON  
APPEAL

72-73

1830X - 5/16" - 18 zinc nut Hex (GRADE 2)

1830x- 5/16" zinc washer

5/16 - 18X 212 1830X - Full Thread for 2-3# Post

1830 X - 5/16" - 3/4 OD - 3/8" ID - 1/16" Thick (F)  
Nylon Washer

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432

Page 1  
Date 06/08/18

POINT OF CONTACT:

PO No. 180277  
Req No. 2669

VENDOR MAILING:  
CHEM-AQUA  
PO BOX 152170  
2727 CHEMSEARCH BLVD  
IRVING TX 75015-2170

GRIFFIN, FRANCES  
MINUTE BOOK # PENDING  
VENDOR # 90013394

(601) 5454654  
SHIP TO :  
CITY OF HATTIESBURG  
NOT APPLICABLE

PROCESSING CODE:

PROJECT LINE: EQUIPMENT, CHEMICALS, & SERVICES FOR COOLING TOWERS MAINT

SEND METHOD 1 (972)4380801

| Account # | Description | QTY | UM | UNIT COST | TOTAL COST |
|-----------|-------------|-----|----|-----------|------------|
|-----------|-------------|-----|----|-----------|------------|

|             |                                                                                                                         |      |    |            |          |
|-------------|-------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|
| 001092.6049 | MONTHLY SERVICES TO INCLUDE AT LEAST 1 SERVICE VISIT, CHEMICALS FOR ONE YEAR AND ANY MAINTENANCE ON CHEMICAL EQUIPMENT. | 1.00 | EA | 4,971.0000 | 4,971.00 |
|-------------|-------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|

|             |                                                                                                                                                                                                                                                                                                                                               |      |    |            |          |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|
| 001092.6049 | ECPXWCF3E ADVANTAGE COOLING CONTROLLER MINIWAVE XWCF3E BOARD MOUNT ADVANTAGE MINIWAVE XWCF3E. CONDUCTIVITY, TEMPERATURE COMPENSATED STAINLESS STEEL SENSOR. 3 SELECTABLE FEED TIMERS. DUAL WATER METER INPUT WITH TOTALIZER. WITH FLOW SWITCH. PRE-WIRED WITH POWER CORD & RECEPTACLES, FIELD UPGRADEA LE. BOARD MOUNT 24"X 36" FLOW ASSEMBLY | 1.00 | EA | 1,659.0000 | 1,659.00 |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|

|             |                                                                                                                                        |      |    |          |        |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|------|----|----------|--------|
| 001092.6049 | EPULCO4SA PULS FEEDER PUMP LCO4SA-VTC1-056, 80 PSI PVC LIQUID END, 5.5 - 24 GPD, STROKE ADJUSTMENT ONLY, 3/8" POLY TUBING CONNECTIONS. | 1.00 | EA | 800.0000 | 800.00 |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|------|----|----------|--------|

|             |                                                                                           |      |    |          |        |
|-------------|-------------------------------------------------------------------------------------------|------|----|----------|--------|
| 001092.6049 | EPPUL64VW2 PULS FEEDER PUMP LB64SA-VWC9-XX2, 100 PSI, 30 GPD, PVC HEAD DEGASING HEAD PUMP | 1.00 | EA | 525.0000 | 525.00 |
|-------------|-------------------------------------------------------------------------------------------|------|----|----------|--------|

|             |                                                                                                                                                               |      |    |          |        |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----------|--------|
| 001092.6049 | EVASC05 VALVE SOLENOID 1/2" ASCO 2-WAY NORMALLY CLOSED ENERGIZE TO OPEN. BRASS BODY. 0-150 PSI. 120/60VAX. MAX TEMP 125F. WITH LB JUNCTION BOX OR EQUIVAVLENT | 1.00 | EA | 100.0000 | 100.00 |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----------|--------|

|             |                                                                                                                                                            |      |    |          |        |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----------|--------|
| 001092.6049 | ETFE161 SUCTION ASSEMBLY FOR 3 DRUMS - SPECIFY DRUM AND TUBING SIZE (3/8", 5/16", 1/4") FOR ALL METERING PUMPS. MUST USE PULSAFEEDER FOOT VALVE EPPPJ40211 | 1.00 | EA | 220.0000 | 220.00 |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----------|--------|

|             |                           |      |    |          |        |
|-------------|---------------------------|------|----|----------|--------|
| 001092.6049 | INSTALLATION OF EQUIPMENT | 1.00 | EA | 750.0000 | 750.00 |
|-------------|---------------------------|------|----|----------|--------|

TOTAL CONTRACT AMOUNT NOT TO EXCEED

9,025.00

SUBMIT SEPARATE INVOICES FOR EACH ORDER. PREPAY SHIPPING CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR ADDRESS ABOVE, CONTACT ACCOUNTING (601) 545-4686.

KERMAS EATON  
CITY CLERK

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

CHEM-AQUA  
PO BOX 152170  
2727 CHEMSEARCH BLVD  
IRVING TX 75015-2170

Mail To . . . . .  
CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Page No. . . . .  
Date . . . . . 6/05/18  
Order Number . . . . . 2669 00

PRINTED NAME

Terry Lancaster

Phone Number . . 601 5454512

SIGNATURE

[Signature]

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: EQUIPMENT, CHEMICALS, & SERVICES FOR COOLING TOWERS MAINT

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                           | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
| MONTHLY SERVICES TO INCLUDE AT LEAST 1 SERVICE VISIT, CHEMICALS FOR ONE YEAR AND ANY MAINTENANCE ON CHEMICAL EQUIPMENT.                                                                                                                                                                                                                    | 05/30/18     | 1.00 | EA | 4971.00    | 4971.00       | 7/8/18        | 8/8/18       |
| ECPCWCF3E ADVANTAGE COOLING CONTROLLER MINIWAVE XWCF3E BOARD MOUNT ADVANTAGE MINIWAVE XWCF3E CONDUCTIVITY TEMPERATURE COMPENSATED STAINLESS STEEL SENSOR 3 SELECTABLE FEED TIMERS, DUAL WATER METER INPUT WITH TOTALIZER, WITH FLOW SWITCH, PRE-WIRED WITH POWER CORD & RECEPTACLES, FIELD UPGRADEABLE. BOARD MOUNT 24 X 36" FLOW ASSEMBLY | 05/30/18     | 1.00 | EA | 1659.00    | 1659.00       | 7/8/18        | 8/8/18       |
| EPFUCO4SA PULS FEEDER PUMP LCO4SA-VT01-056, 80 PSI PVC LIQUID END, 3.5 - 24 GPD, STROKE ADJUSTMENT ONLY, 3/8" POLY TUBING CONNECTIONS.                                                                                                                                                                                                     | 05/30/18     | 2.00 | EA | 400.00     | 800.00        | 7/8/18        | 8/8/18       |
| EPFUC64V2 PULS FEEDER PUMP L64SA-VWC9-XX2, 100 PSI, 30 GPD, PVC HEAD DEGASING HEAD PUMP                                                                                                                                                                                                                                                    | 05/30/18     | 1.00 | EA | 525.00     | 525.00        | 7/8/18        | 8/8/18       |
| EVASCO5 VALVE SOLENOID 1/2" ASCO 2-WAY NORMALLY CLOSED ENERGIZE TO OPEN. BRASS BODY, 0-150 PSI, 120/60VAC, MAX TEMP 125F, WITH 1LB JUNCTION BOX OR EQUIVALENT                                                                                                                                                                              | 05/30/18     | 1.00 | EA | 100.00     | 100.00        | 7/8/18        | 8/8/18       |
| ETFE161 SUCTON                                                                                                                                                                                                                                                                                                                             | 05/30/18     | 3.00 | EA | 73.33      | 220.00        | 7/8/18        | 8/8/18       |

[Handwritten initials]



43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. 2  
Date - 6/05/18  
Order Number 2669 00

PROJECT LINE: EQUIPMENT, CHEMICALS, & SERVICES FOR COOLING TOWERS MAINT

ITEM DESCRIPTION  
ASSEMBLY FOR 3 DRUMS - SPECIFY DRUM AND TUBING SIZE  
(3/8", 5/16", 1/4") FOR ALL METERING PUMPS. MUST USE  
PULSAFEEDER FOOT VALVE EPP3140211

INSTALLATION OF  
EQUIPMENT

Request  
Date

QTY

UM

Unit  
Price

Extended  
Cost

Delivery  
Date

Expired  
Date

06/30/18

1.00 EA

750.00

750.00

7/15/18

TOTAL BID PRICE

\$9025.00

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 6/05/18  
Date . . . . . 2869 00  
Order Number . . . . .

CERTIFIED LABORATORIES  
ATTN ED ASSAF  
1004 RICHBURG RD  
HATTIESBURG MS 39402-9054

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT  
ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

p.1

PRINTED NAME Ed Assaf

Phone Number . . 601 5454512

SIGNATURE Ed Assaf DATE 6-5-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: EQUIPMENT, CHEMICALS, & SERVICES FOR COOLING TOWERS MAINT

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                         | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
| MONTHLY SERVICES TO<br>INCLUDE AT LEAST 1 SERVICE VISIT, CHEMICALS FOR ONE YEAR<br>AND ANY MAINTENANCE ON CHEMICAL EQUIPMENT.                                                                                                                                                                                                                            | 05/30/18     | 1.00 | FA |            | 25,100        |               |              |
| ECPWCE33 ADVANTAGE<br>COOLING CONTROLLER MINIWAVE XWCE33 BOARD MOUNT ADVANTAGE<br>MINIWAVE XWCE33 CONDUCTIVITY TEMPERATURE COMPENSATED<br>STAINLESS STEEL SENSOR 3 SELECTABLE FEED TIMERS DUAL WATER<br>METER INPUT WITH TOTALIZER WITH FLOW SWITCH PRE-WIRED WITH<br>POWER CORD & RECEPTACLES, FIELD UPGRADEABLE BOARD MOUNT<br>24" X 36" FLOW ASSEMBLY | 05/30/18     | 1.00 | EA |            | 1,700         |               |              |
| EPFUCO4SA PULS<br>FEEDER PUMP LCO4SA-VTC1-056 80 PSI PVC LIQUID END<br>5.5 - 24 GPD. STROKE ADJUSTMENT ONLY, 3/8" POLY TUBING<br>CONNECTIONS.                                                                                                                                                                                                            | 05/30/18     | 1.00 | EA |            | 800           |               |              |
| EPFUC64V2 PULS<br>FEEDER PUMP LB64SA-VVC9-XX2 100 PSI 30 GPD, PVC HEAD<br>DEGASING HEAD PUMP                                                                                                                                                                                                                                                             | 05/30/18     | 1.00 | EA |            | 550           |               |              |
| EVASCO5 VALVE<br>SOLENOID 1/2" ASCO 2-WAY NORMALLY CLOSED ENERGIZE TO OPEN.<br>BRASS BODY 0-150 PSI. 120/60VAC. MAX TEMP 125F. WITH LB<br>JUNCTION BOX<br>OR EQUIVALENT                                                                                                                                                                                  | 05/30/18     | 1.00 | EA |            | 250           |               |              |
| ETFE161 SUCTION                                                                                                                                                                                                                                                                                                                                          | 05/30/18     | 1.00 | EA |            | 300           |               |              |

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 2  
Date . . . . . 6/05/18  
Order Number . . . . . 2669 00

PROJECT LINE: EQUIPMENT, CHEMICALS, & SERVICES FOR COOLING TOWERS MAINT

ASSEMBLY FOR 3 DRUMS - SPECIFY DRUM AND TUBING SIZE  
(3/8" 5/16" 1/4") FOR ALL METERING PUMPS. MUST USE  
PULSAFEEDER FOOT VALVE EPPFJ40211

INSTALLATION OF  
EQUIPMENT

05/30/18

1.00 EA

\$400

TOTAL BID PRICE \$9,100

ITEM DESCRIPTION

Request  
Date

QTY

UNIT

Unit  
Price

Extended  
Cost

Delivery  
Date

Expired  
Date

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432

POINT OF CONTACT:

Page 1  
Date 06/08/18  
PO No. 180291  
Req No. 2673

VENDOR MAILING:  
NORRIS CONSTRUCTION  
57 CARTER DR  
SEMINARY MS 39479

HALL STEPHANIE  
MINUTE BOOK # PENDING  
VENDOR # 00087174  
(601) 5454675

SHIP TO:  
CITY OF HATTIESBURG  
CITY HALL-DEPT. OF URBAN DEVELOPMENT  
200 FORREST STREET - 1ST FLOOR  
HATTIESBURG MS 39401

PROCESSING CODE:

SEND METHOD 1 (601)7224268

PROJECT LINE: HOME REPAIRS, 543 MILLER ST. URBAN DEVELOPMENT

| Account # | Description | QTY | UM | UNIT COST | TOTAL COST |
|-----------|-------------|-----|----|-----------|------------|
|-----------|-------------|-----|----|-----------|------------|

|                |                                                                                                                                                                                                                                                                                                                                                  |      |    |            |          |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|
| 082285.7254.02 | EXTERIOR WORK<br>543 MILLER STREET EXTERIOR REPAIRS - SEE ATTACHED SHEET<br>DETAILING REPAIRS NEEDED AND COMPLETE SHEET<br>GENERAL REQUIREMENTS ALSO LISTED ON THE TOP PORTION OF<br>ATTACHED SHEET (GUIDELINES FOR HOUSING REPAIR FOR CDBG)<br>SEE ALSO CONTRACTOR'S PERFORMANCE STANDARDS FOR<br>REHABILITATION PAGES 2-3 OF ATTACHED DOCUMENT | 1.00 | EA | 7,440.0000 | 7,440.00 |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|

|                |                                                                                                                                       |      |    |            |          |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|
| 082285.7254.02 | INTERIOR GENERAL<br>PLEASE SEE ATTACHED DOCUMENT THAT DESCRIBES IN DETAIL WORK<br>REQUESTED FOR INTERIOR GENERAL OF 543 MILLER STREET | 1.00 | EA | 7,975.0000 | 7,975.00 |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|

|                |                                                                                                 |      |    |            |          |
|----------------|-------------------------------------------------------------------------------------------------|------|----|------------|----------|
| 082285.7254.02 | KITCHEN WORK<br>PLEASE SEE ATTACHED DOCUMENT FOR DETAILED INFORMATION ON<br>KITCHEN REPAIR WORK | 1.00 | EA | 1,600.0000 | 1,600.00 |
|----------------|-------------------------------------------------------------------------------------------------|------|----|------------|----------|

TOTAL CONTRACT AMOUNT NOT TO EXCEED

17,015.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE CONTACT ACCOUNTING  
(601) 545-4686.

KERMAE EATON  
CITY CLERK

43530

NORRIS CONSTRUCTION  
57 CARTER DR  
SEMINARY MS 39479

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 6/08/18  
Date . . . . . 2673 00  
Order Number . . . . .  
CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 N FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Mail To. . . . .

Phone Number . . . 601 5454512

PRINTED NAME David Norris aka Norris & Company LLC  
SIGNATURE David Norris DATE 6-8-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: HOME REPAIRS, 543 MILLER ST. - URBAN DEVELOPMENT

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                  | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
| EXTERIOR WORK<br>543 MILLER STREET EXTERIOR REPAIRS - SEE ATTACHED SHEET<br>DETAILING REPAIRS NEEDED AND COMPLETE SHEET<br>GENERAL REQUIREMENTS ALSO LISTED ON THE TOP PORTION OF<br>ATTACHED SHEET (GUIDELINES FOR HOUSING REPAIRS FOR CMRG)<br>SEE ALSO CONTRACTOR'S PERFORMANCE STANDARDS FOR<br>REHABILITATION PAGES 2-3 OF ATTACHED DOCUMENT | 06/07/18     | 1.00 | EA | \$ 7915.00 |               |               |              |
| INTERIOR GENERAL<br>PLEASE SEE ATTACHED DOCUMENT THAT DESCRIBES IN DETAIL<br>REQUESTED FOR INTERIOR GENERAL OF 543 MILLER STREET                                                                                                                                                                                                                  | 06/07/18     | 1.00 | EA | \$ 1600.00 |               |               |              |
| KITCHEN WORK<br>PLEASE SEE ATTACHED DOCUMENT FOR DETAILED INFORMATION ON<br>KITCHEN REPAIR WORK                                                                                                                                                                                                                                                   | 06/07/18     | 1.00 | EA | \$ 1600.00 |               |               |              |

TOTAL BID PRICE \$17015.00

John H. H. H.  
6-8-18

John H. H. H.

## QUOTE REQUEST RESPONSE FORM

HOLLIMAN CONSTRUCTION  
145 HINTON DR  
HATTIESBURG MS 39401-8406

Mail To. . . . .

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Page No. . . . .  
Date . . . . . 6/08/18  
Order Number . . . . . 2673 00

PRINTED NAME

Celtis Holliman

Phone Number . . 601 5454512

SIGNATURE

Celtis Holliman DATE 6-8-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: HOME REPAIRS, 543 MILLER ST. - URBAN DEVELOPMENT

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                 | Request Date | QTY  | UN | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
| EXTERIOR WORK<br>543 MILLER STREET EXTERIOR REPAIRS - SEE ATTACHED SHEET<br>DETAILING REPAIRS NEEDED AND COMPLETE SHEET<br>GENERAL REQUIREMENTS ALSO LISTED ON THE TOP PORTION OF<br>ATTACHED SHEET (GUIDELINES FOR HOUSING REPAIR FOR CD35)<br>SEE ALSO CONTRACTOR'S PERFORMANCE STANDARDS FOR<br>REHABILITATION PAGES 2-3 OF ATTACHED DOCUMENT | 06/07/18     | 1.00 | EA |            | <u>7480</u>   |               |              |
| INTERIOR GENERAL<br>PLEASE SEE ATTACHED DOCUMENT THAT DESCRIBES IN DETAIL<br>REQUESTED FOR INTERIOR GENERAL OF 543 MILLER STREET                                                                                                                                                                                                                 | 06/07/18     | 1.00 | EA |            | <u>7480</u>   |               |              |
| KITCHEN WORK<br>PLEASE SEE ATTACHED DOCUMENT FOR DETAILED INFORMATION ON<br>KITCHEN REPAIR WORK                                                                                                                                                                                                                                                  | 06/07/18     | 1.00 | EA |            | <u>640</u>    |               |              |

TOTAL BID PRICE 17040.00

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432

Page 1  
Date 06/13/18

POINT OF CONTACT:

PO No. 180409  
Req No. 2671

VENDOR MAILING:  
SOUTHERN ALUMINUM MANUFACTURING ACQ., INC  
PO BOX 884  
MAGNOLIA AR 71754-0884

ACKER, REBECCA  
VENDOR # 00109630  
PENDING

(601) 5454944  
SHIP TO :  
CITY OF HATTIESBURG  
JACKIE DOLE SHERILL  
220 W FRONT STREET - 1ST FLOOR  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: ALUMINUM TABLES FOR COMMUNITY CENTERS USE

SEND METHOD 1 (601)5836503

| Account #   | Description                                            | QTY   | UM | UNIT COST | TOTAL COST |
|-------------|--------------------------------------------------------|-------|----|-----------|------------|
| 077650.7320 | 8FT ALUMINUM TABLES<br>ORDER NOT TO EXCEED \$10,000.00 | 25.00 | EA | 347.0000  | 8,675.00   |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

8,675.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

43530

SOUTHERN ALUMINUM MANUFACT  
PO BOX 884  
MAGNOLIA AR 71754-0884

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Page No. . . . . 6/05/18  
Date - . . . . 2671 00  
Order Number . . . . .

PRINTED NAME Stacie Brice

Phone Number . . 601 5454512

SIGNATURE Stacie Brice DATE

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: ALUMINUM TABLES FOR COMMUNITY CENTERS USE

| ITEM DESCRIPTION                                       | Request Date | QTY   | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------------------------------------------------|--------------|-------|----|------------|---------------|---------------|--------------|
| SFT ALUMINUM TABLES<br>ORDER NOT TO EXCEED \$10,000.00 | 06/05/18     | 25.00 | EA | \$347 ea   | \$8,675 ext   | 45 Days ARO   | 7/5/18       |

TOTAL BID PRICE \$8,675

  
6-12-18



43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORMPage No. . . . . 6/05/18  
Date . . . . . 2671 00  
Order Number . . . . .STANDARD OFFICE SUPPLY CO  
400 W PINE ST  
PO BOX 950  
HATTIESBURG MS 39403-0950Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401PRINTED NAME Mike Herpin

Phone Number . . . 601 5454512

SIGNATURE Mike Herpin DATE 6-12-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: ALUMINUM TABLES FOR COMMUNITY CENTERS USE

| ITEM DESCRIPTION                                       | Request Date | QTY   | UM | Unit Price | Extended Cost | Delivery % Date | Expired Date |
|--------------------------------------------------------|--------------|-------|----|------------|---------------|-----------------|--------------|
| 8FT ALUMINUM TABLES<br>ORDER NOT TO EXCEED \$10,000.00 | 06/05/18     | 25.00 | EA | \$354.92   | \$8873        | See below       | 7-12-18      |

TOTAL BID PRICE \$8873.00

\* Delivery Date approximately 2 weeks from receipt of order

Special Note: Our price includes delivery and installation.  
Also includes removal of cartons and packing material.

Please consider Standard Office Supply is a local tax paying business.

Thank you for this opportunity

Mike Herpin  
Owner and President  
Standard Office Supply Co.

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 1  
Date . . . . . 6/05/18  
Order Number . . . . . 2671 00

INDOFF INC  
5728 HIGHWAY 11  
PURVIS MS 39475-5004

Mail To . . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME Indoff Inc.

Phone Number . . . 601 5454512

SIGNATURE Thomas H. House DATE 06/11/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: ALUMINUM TABLES FOR COMMUNITY CENTERS USE

| ITEM DESCRIPTION                                       | Request Date | QTY   | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------------------------------------------------|--------------|-------|----|------------|---------------|---------------|--------------|
| 8FT ALUMINUM TABLES<br>ORDER NOT TO EXCEED \$10,000.00 | 06/05/18     | 25.00 | EA | 391.00     | 9,775.00      | 06/04/18      | 07/11/18     |

TOTAL BID PRICE 9,775.00

|                              |                            |                                      |         |   |          |
|------------------------------|----------------------------|--------------------------------------|---------|---|----------|
| BILL TO:                     | CITY OF HATTIESBURG        | PURCHASE ORDER                       | Page    | - | 1        |
| CITY OF HATTIESBURG          | ACCOUNTING DEPT            | THE CITY IS NOT LIABLE FOR SALES TAX | Date    | - | 06/14/18 |
| PO BOX 1898                  | HATTIESBURG, MS 39403-1898 | POINT OF CONTACT:                    | PO No.  | - | 180452   |
| FAX INVOICE TO: 601-584-4895 |                            |                                      | Req No. | - | 2672     |

|                    |                 |               |                      |
|--------------------|-----------------|---------------|----------------------|
| VENDOR MAILING:    | HALL, STEPHANIE | (601) 5454675 | SHIP TO :            |
| CARPENTER BUS LLC  | MINUTE BOOK #   | PENDING       | CITY OF HATTIESBURG  |
| 6400 OLD DALLAS RD |                 |               | HUB CITY TRANSIT     |
| ELM MOTT TX 76640  | VENDOR #        | 00104035      | 1419 WEST PINE ST    |
|                    |                 |               | HATTIESBURG MS 39401 |

PROCESSING CODE:

PROJECT LINE: 1 BUS RENTAL FOR HUB CITY TRANSIT SEND METHOD 1 (254)7993003

| Account #   | Description                                                                                                                                                                                                                                                    | QTY  | UM | UNIT COST   | TOTAL COST |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|------------|
| 073570.6449 | BUS RENTAL<br>RENTAL FOR 1 BUS / 4 MONTH RENTAL TERM (JUL 1-NOV 1, 2018)<br>WITH POSSIBLE EXTENSION / INCLUDE MILEAGE IN QUOTE / PLEASE<br>STATE DELIVERY & PICKUP FEES FOR HATTIESBURG, MS 39401<br>15 PASSENGER TOTAL (12 PASSENGER, 2 WHEELCHAIR, 1 DRIVER) | 1.00 | EA | 15,990.8100 | 15,990.81  |

TOTAL CONTRACT AMOUNT NOT TO EXCEED 15,990.81

SUBMIT SEPARATE INVOICES FOR EACH ORDER. PREPAY SHIPPING CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR ADDRESS ABOVE, CONTACT ACCOUNTING (601) 545-4686.

KERMAE EATON  
CITY CLERK

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 6/06/18  
Date . . . . . 2672 00  
Order Number . . . . .

CARPENTER BUS LLC  
6400 OLD DALLAS RD  
BLM MOTT TX 76640

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME

*Latie Feebles Agent*

Phone Number . . 601 5454512

SIGNATURE

*Latie Feebles*

DATE

*6-8-18*

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: 1 BUS RENTAL FOR HUB CITY TRANSIT

ITEM DESCRIPTION

BUS RENTAL  
RENTAL FOR 1 BUS / 4 MONTH RENTAL TERM (JUL 1-NOV 1, 2018)  
WITH POSSIBLE EXTENSION / INCLUDE MILEAGE IN QUOTE / PLEASE  
STATE DELIVERY & PICKUP FEES FOR HATTIESBURG MS 39401  
15 PASSENGER TOTAL (12 PASSENGER, 2 WHEELCHAIR, 1 DRIVER)

| Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------|------|----|------------|---------------|---------------|--------------|
| 06/06/18     | 1.00 | EA | 14180.01   | 14180.01      | 6-30-18       | 6-30-18      |

TOTAL BID PRICE 15,990.81

Miles over 3000 will be charged @ .60 per mile  
Carportec bus will need 1 week in advance to prepair bus for rental.

*[Signature]*

6-14-18

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 1  
Date . . . . . 6/06/18  
Order Number . . . . . 2672 00

MASTER'S TRANSPORTATION  
800 QUIK TRIP WAY  
BELTON MO 64012

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Phone Number . . 601 5454512

PRINTED NAME Douglas Fuchard

SIGNATURE Douglas Fuchard DATE 6/6/2018

Shipping terms are F.O.B. destination. freight prepaid

PROJECT LINE: 1 BUS RENTAL FOR HUB CITY TRANSIT

| ITEM DESCRIPTION                                                                                                                                                                                                                                               | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
| BUS RENTAL<br>RENTAL FOR 1 BUS / 4 MONTH RENTAL TERM (JUL 1-NOV 1, 2018)<br>WITH POSSIBLE EXTENSION / INCLUDE MILEAGE IN QUOTE / PLEASE<br>STATE DELIVERY & PICKUP FEES FOR HATTIESBURG, MS 39401<br>15 PASSENGER TOTAL (12 PASSENGER, 2 WHEELCHAIR, 1 DRIVER) | 06/06/18     | 1.00 | EA | 16,110     | 16,110        | 6/29          |              |

includes  
Detw.

TOTAL BID PRICE 16,110

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 1  
Date . . . . . 6/06/18  
Order Number . . . . . 2672 00

ALLIANCE BUS GROUP INC  
4741 I 55 S  
JACKSON MS 39212-5532

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME Theresa Pourciau, Finance Manager

Phone Number . . 601 5454512

SIGNATURE Theresa Pourciau DATE 6/08/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: 1 BUS RENTAL FOR HUB CITY TRANSIT

| ITEM DESCRIPTION                                                                                                                                                                                                                                                               | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
|                                                                                                                                                                                                                                                                                |              |      |    |            |               |               |              |
| BUS RENTAL<br>RENTAL FOR 1 BUS / 4 MONTH RENTAL TERM (JUL 1-NOV 1, 2018)<br>WITH POSSIBLE EXTENSION / INCLUDE MILEAGE IN QUOTE / PLEASE DELIVERY 1.00 ea<br>STATE DELIVERY & PICKUP FEES FOR HATTIESBURG MS 39401<br>15 PASSENGER TOTAL (12 PASSENGER, 2 WHEELCHAIR, 1 DRIVER) | 06/06/18     | 1.00 | EA | \$4650.00  | \$18,600.00   | 7/1/18        | 11/1/18      |
|                                                                                                                                                                                                                                                                                |              |      |    | \$127.50   | \$255.00      |               |              |

TOTAL BID PRICE \$18,855.00

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
P U R C H A S E O R D E R  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 06/18/18  
PO No. 180515  
Req No. 2675

VENDOR MAILING:  
GRINER DRILLING SERVICE INC  
PO DRAWER 825  
COLUMBIA MS 39429-0825

WAGGONER, ROBIN  
MINUTE BOOK # PENDING  
VENDOR # 00018080

SHIP TO :  
CITY OF HATTIESBURG  
WATER PLANT #2  
900 JAMES STREET  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: REPAIRS TO WELL #3 AT WATERPLANT #2

SEND METHOD 1 (601)7311853

| Account #   | Description                                                                                                                                                                                                    | QTY  | UM | UNIT COST   | TOTAL COST |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|------------|
| 009673.6380 | WELL#3 WATERPLANT#2<br>REPAIRS TO WELL #3 AT WATERPLANT #2-<br>REQUIRES 80' OF COLUMN WITH SHAFITING,<br>COATED AND RETAINER (STAINLESS)<br>PRICE TO INCLUDE ALL COST TO RIG AND TEST<br>TO ASSURE OPERATIONAL | 1.00 | EA | 17,425.0000 | 17,425.00  |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

17,425.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

43630

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 1  
Date . . . . . 6/08/18  
Order Number . . . . . 2675 00

GRINER DRILLING SERVICE I  
PO DRAWER 825  
COLUMBIA MS 39429-0825

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
230 W. FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME Joe Loftin

SIGNATURE *[Signature]* DATE 6/15/18

Phone Number . . 601 5454512

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: REPAIRS TO WELL #3 AT WATERPLANT #2

| ITEM DESCRIPTION                                                                                                                                                                                              | Request Date | QTY  | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|---------------|---------------|--------------|
| WELL#3 WATERPLANT#2<br>REPAIRS TO WELL #3 AT WATERPLANT #2-<br>REQUIRES 80' OF COLLUM WITH SHAFTING,<br>COATED AND RETAINER (STAINLESS)<br>PRICE TO INCLUDE ALL COST TO RIG AND TEST<br>TO ASSURE OPERATIONAL | 06/08/18     | 1.00 | EA | 17,425.00  | 17,425.00     | 3-5 WKS       | 7/20/18      |

TOTAL BID PRICE \$17,425.00

\*From the date of notice to proceed it will take 3-5 weeks to complete project

*[Signature]*  
6/15/18

*[Signature]*



43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Page No. . . . . 6/08/18  
Date . . . . . 2675 00  
Order Number . . . . .

THOMPSON BROTHERS DRILL IN  
533 MOSELLE-SEMINARY ROAD  
MOSELLE MS 39459

Mail To. . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

PRINTED NAME Perry Bridges

Phone Number . . 601 5454512

SIGNATURE Perry Bridges DATE 6-15-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: REPAIRS TO WELL #3 AT WATERPLANT #2

| ITEM DESCRIPTION                                                                                                                                                                                                | Request Date | QTY  | UM | Unit Price  | Extended Cost | Delivery Date | Expired Date |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|-------------|---------------|---------------|--------------|
| WELL #3 WATERPLANT #2<br>REPAIRS TO WELL #3 AT WATERPLANT #2-<br>REQUIRES 80' OF COLUMN WITH SHAFTING,<br>COATED AND RETAINER (STAINLESS)<br>PRICE TO INCLUDE ALL COST TO RIG AND TEST<br>TO ASSURE OPERATIONAL | 06/08/18     | 1.00 | EA | \$18,000.00 | \$18,000.00   | 7-15-18       | 8-15-18      |

TOTAL BID PRICE \$18,000.00

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
PURCHASE ORDER  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432

Page 1  
Date 06/19/18

POINT OF CONTACT:

PO No. 180556  
Req No. 2678

VENDOR MAILING:  
TEMPLE INC  
50 DAVIS ST NE  
PO BOX 2066  
DECATUR AL 35602-2066

EVANS, CHELSEA  
MINUTE BOOK # PENDING  
VENDOR # 00002206

(601) 5454545  
SHIP TO :  
CITY OF HATTIESBURG  
TRAFFIC  
125 WALNUT ST  
HATTIESBURG MS 39401

PROCESSING CODE:

PROJECT LINE: TRAFFIC SIGNAL PARTS FOR CITY WIDE USE

SEND METHOD 1 (256)3534578

| Account #   | Description                     | QTY  | UM | UNIT COST  | TOTAL COST |
|-------------|---------------------------------|------|----|------------|------------|
| 001191.5540 | PROCESSOR<br>EDGE2-2N PROCESSOR | 6.00 | EA | 3,375.0000 | 20,250.00  |
| 001191.5540 | CAMERA<br>RZA4 WDR CAMERA       | 6.00 | EA | 1,655.0000 | 9,930.00   |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

30,180.00

SUBMIT SEPARATE INVOICES FOR  
EACH ORDER. PREPAY SHIPPING  
CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR  
ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR  
ADDRESS ABOVE, CONTACT ACCOUNTING  
(601) 545-4686.

KERMAS EATON  
CITY CLERK

43530

TEMPLE INC  
80 DAVIS ST NE  
PO BOX 2066  
DECATUR AL 35602-2066

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Mail To . . . . .  
CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Page No. . . . .  
Date 6/18/18  
Order Number 2678 00

PRINTED NAME Wes Prater

Phone Number . . 601 5454512

SIGNATURE Wes Prater DATE 6-18-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: TRAFFIC SIGNAL PARTS FOR CITY WIDE USE

| ITEM DESCRIPTION                | Request Date | QTY  | UM | Unit Price        | Extended Cost     | Delivery Date  | Expired Date   |
|---------------------------------|--------------|------|----|-------------------|-------------------|----------------|----------------|
|                                 |              |      |    |                   |                   |                |                |
| PROCESSOR<br>EDGE2-2N PROCESSOR | 06/18/18     | 6.00 | EA | <u>\$1,555.00</u> | <u>\$9,330.00</u> | <u>45 days</u> | <u>45 days</u> |
| CAMERA<br>8244 WDR CAMERA       | 06/18/18     | 6.00 | EA | <u>\$1,555.00</u> | <u>\$9,330.00</u> | <u>45 days</u> | <u>45 days</u> |

TOTAL BID PRICE \$30,180.00

Wes Prater  
6/19/18

Wes Prater

43590

PORTER CONSTRUCTION SERV  
15451 NORTHERN CLEVELAND RD  
GULFPORT MS 39503

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

Mail To . . . . . CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Page No. . . . . 6/18/18  
Date . . . . . 2678 00  
Order Number . . . . .

Phone Number . . . 601 5454512

PRINTED NAME Heath Powell

SIGNATURE  DATE 6/18/18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: TRAFFIC SIGNAL PARTS FOR CITY WIDE USE

| ITEM DESCRIPTION                | Request Date | QTY  | UNIT | Unit Price | Extended Cost | Delivery Date | Expired Date |
|---------------------------------|--------------|------|------|------------|---------------|---------------|--------------|
|                                 |              |      |      |            |               |               |              |
| PROCESSOR<br>EDGE-2IN PROCESSOR | 06/18/18     | 6.00 | EA   | \$1,854.00 | \$11,124.00   | 4-6 Weeks     | 30 Days      |
| CAMERA<br>K2K4 WDR CAMERA       | 06/18/18     | 6.00 | EA   | \$1,854.00 | \$11,124.00   | 4-6 Weeks     | 30 Days      |

TOTAL BID PRICE \$33,804.00

Prices does not include Taxes.



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-559**

**File ID:** 2018-559

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:**

**File Created:** 06/19/2018

**Brief Title:** Acknowledge receipt of unadvertised bids for City Hall 3rd Floor Renovation; Acknowledge the bid of Hub City Construction in the amount of \$49,180.00 as the lowest bid received (Unadvertised bids for Construction Project)

**Final Action:**

**Minute Book Number:** MB2018-171

**Title:**

Acknowledge receipt of unadvertised bids for City Hall 3rd Floor Renovation; Acknowledge the bid of Hub City Construction in the amount of \$49,180.00 as the lowest bid received. (Unadvertised bids for Construction Project)

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VII.-2

**Sponsors:**

**Enactment Date:**

**Attachments:** 07-03-City Hall 3rd Floor Renovation-Hub City Construction (Two Quote)

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:**

**Effective Date:**

## History of Legislative File

| Ver-<br>sion: | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council | 07/03/2018 |         |          |           |                 |         |

## Text of Legislative File 2018-559

### Title

Acknowledge receipt of unadvertised bids for City Hall 3rd Floor Renovation; Acknowledge the bid of Hub City Construction in the amount of \$49,180.00 as the lowest bid received.  
(Unadvertised bids for Construction Project)

### Summary

Unadvertised bids for Construction Project - Hub City Construction

**Budget Information**

**Expenditure Type**

**Purchasing Item**

**Publication Information**

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-384-4895

CITY OF HATTIESBURG  
P U R C H A S E O R D E R  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432  
POINT OF CONTACT:

Page 1  
Date 05/04/18  
PO No. 179306  
Req No. 2660

VENDOR MAIL INC.  
HUB CITY CONSTRUCTION INC  
607 CORBINE ST #C-6  
HATTIESBURG MS 39401

JONES, ANN  
VENDOR # 00078549  
(601) 5454661  
SHIP TO  
CITY OF HATTIESBURG  
SEE BELOW FOR DELIVERY

PROCESSING CODE:

SEND METHOD 0 ( )

PROJECT LINE: CITY HALL 3RD FLOOR RENOVATION

| Account # | Description | QTY | UM | UNIT COST | TOTAL COST |
|-----------|-------------|-----|----|-----------|------------|
|-----------|-------------|-----|----|-----------|------------|

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |    |             |           |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|-----------|
| 001092.6350 | PREP. PRIME AND PAINTED WINDOW FRAMES. PATCH AND REPAIR WINDOW HEADS AND JAMBS AS REQUIRED. PREP. PRIME AND PAINT ALL PREVIOUSLY PAINTED SURFACES INCLUDING WALLS, DOORS, TRIM AND NON-ACOUSTICAL CEILING. PREP. PRIME AND PAINT ALL WALLS COVERED WITH WALLPAPER THAT IS IN CONDITION CONDUCTIVE FOR A SUCCESSFUL PAINT APPLICATION WHERE WALL PAPER ADHESION HAS FAILED. REMOVE WALLPAPER FROM ENTIRE WALL PLANE. PREP. PRIME AND PAINT | 1.00 | EA | 19,800.0000 | 19,800.00 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|-----------|

|             |                                                                                                                                                                                                                   |      |    |          |        |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----------|--------|
| 001092.6350 | WOOD WALL PANELING AND NATURAL DOORS IN MAYOR'S OFFICE TO REMAIN. PROTECT AS NECESSARY WHILE OTHER WORK IS BEING PERFORMED. NEARBY REFINISH/RESEAL WOOD AS REQUIRED AROUND WINDOWS AND WHERE FINISH HAS WORN OFF. | 1.00 | EA | 680.0000 | 680.00 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----------|--------|

|             |                                                                                                                                                                                                                     |      |    |            |          |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|
| 001092.6350 | EXISTING WOOD DOORS WAINSCOTING WINDOW TRIM AND CROWN MOULDINGS TO REMAIN. PROTECT AS NECESSARY WHILE OTHER WORK IS BEING PERFORMED. REFINISH/RESEAL WOOD AS REQUIRED AROUND WINDOWS AND WHERE FINISH HAS WORN OFF. | 1.00 | EA | 2,200.0000 | 2,200.00 |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|

|             |                                                                                                                                                |      |    |            |          |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|
| 001092.6350 | PREP. PRIME AND PAINT EXISTING CABINETRY AND REPLACE VISIBLE CABINET HARDWARE (KNIVES/PULLS). CABINET HARDWARE STYLE AND FINISH TO BE SELECTED | 1.00 | EA | 1,500.0000 | 1,500.00 |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------|------|----|------------|----------|

|             |                                                                 |      |    |            |          |
|-------------|-----------------------------------------------------------------|------|----|------------|----------|
| 001092.6350 | REPLACE CABINET COUNTERTOP WITH QUARTZ TOP COLOR TO BE SELECTED | 1.00 | EA | 1,500.0000 | 1,500.00 |
|-------------|-----------------------------------------------------------------|------|----|------------|----------|

BILL TO:  
CITY OF HATTIESBURG  
ACCOUNTING DEPT  
PO BOX 1898  
HATTIESBURG, MS 39403-1898  
FAX INVOICE TO: 601-584-4895

CITY OF HATTIESBURG  
P U R C H A S E O R D E R  
THE CITY IS NOT LIABLE FOR SALES TAX ID# 64-6000432

Page Date - 05/04/18  
PO No. - 179306  
Req No. - 2660

VENDOR MAILING:  
HUB CITY CONSTRUCTION INC  
607 CORKLINE ST #C-6  
HATTIESBURG MS 39401

JONES, ANN  
VENDOR # 00078549  
(601) 5454661

SHIP TO:  
CITY OF HATTIESBURG  
SEE BELOW FOR DELIVERY

PROCESSING CODE:

SEND METHOD 0 ( )

PROJECT LINE: CITY HALL 3RD FLOOR RENOVATION

| Account #   | Description                                                                                                                                  | QTY  | UM | UNIT COST   | TOTAL COST |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------------|------------|
| 001092.6350 | REMOVE EXISTING CARPET AND REPLACE WITH NEW TO MATCH OR COMPLEMENT EXISTING IN RECEPTION                                                     | 1.00 | EA | 1,900.0000  | 1,900.00   |
| 001092.6350 | REMOVE EXISTING CARPET AND REPLACE WITH PINE FLOORING WHERE SHOWN ON PLAN PREP, PRIME AND STAIN TO MATCH APPROVED SAMPLE                     | 1.00 | EA | 14,400.0000 | 14,400.00  |
| 001092.6350 | REMOVE EXISTING WALL AND FLOOR TILE AND REPLACE AS SCHEDULED                                                                                 | 1.00 | EA | 3,100.0000  | 3,100.00   |
| 001092.6350 | REMOVE AND REPLACE EXISTING VANITY AND RELATED PLUMBING AND REPLACE WITH NEW CONSOLE SINK TO BE SELECTED                                     | 1.00 | EA | 1,250.0000  | 1,250.00   |
| 001092.6350 | REMOVE AND REPLACE LIGHT FIXTURE WITH NEW LIGHT FIXTURE TO BE SELECTED BY CITY                                                               | 1.00 | EA | 250.0000    | 250.00     |
| 001092.6350 | REMOVE AND REPLACE MIRROR, HAND TOWEL, TOILET PAPER AND SOAP DISPENSERS WITH NEW FIXTURES TO BE SELECT BY THE CITY                           | 1.00 | EA | 500.0000    | 500.00     |
| 001092.6350 | PREP, PRIME AND PAINT ALL PREVIOUSLY PAINTED SURFACES INCLUDING RISERS, TREADS, RAILING AND POSTS. INSTALL NEW TACTILE NOSING TO BE SELECTED | 1.00 | EA | 2,100.0000  | 2,100.00   |

TOTAL CONTRACT AMOUNT NOT TO EXCEED

49,180.00

SUBMIT SEPARATE INVOICES FOR EACH ORDER. PREPAY SHIPPING CHARGES IF ANY AND ADD TO INVOICE.

THIS PO NUMBER MUST APPEAR ON ALL PACKAGES & INVOICES.

FOR CORRECTIONS TO VENDOR ADDRESS ABOVE CONTACT ACCOUNTING (601) 545-4686.

KERRAS FATON  
CITY CLERK



☐ GYMNASIUM SCARD OF LINC.  
TO BE PAINTED

[illegible]

### FINISH CODES

[illegible]4. Plug, trim, and paint  
the end and replace w/[illegible]

☐ NEW CARPET (At #1) NEW WOOD  
☐ NEW WOOD FLOORING



43530

HUE CITY CONSTRUCTION INC  
607 CORBINE ST #2 6  
HATTIESBURG MS 39401

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

CITY OF HATTIESBURG  
PURCHASING DIVISION  
240 W FRONT ST 2ND FLOOR  
PO BOX 1588  
HATTIESBURG MS 39401

Page No. 1  
Date 4/27/18  
Order Number 2660 00

Phone Number 503 5654512

PRINTED NAME Scott Perkins  
SIGNATURE Scott Perkins

DATE 5-3-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: CITY HALL 3RD FLOOR RENOVATION

ITEM DESCRIPTION

Request  
Date  
04/27/18

City  
1.00 EA

Unit Price  
17,800.00

Extended  
Cost

Delivery  
Date

WALL  
DOORS  
NT

04/27/18

1.00 EA

680.00

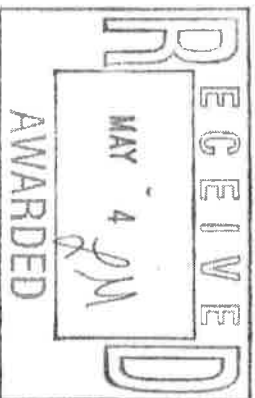
OTHER WORK IS BEING DONE IN THE AREA OF THE PROJECT AS REQUIRED BY THE ARCHITECT AND THERE  
OFF

04/27/18

1.00 EA

2,200.00

BY THE CITY OF HATTIESBURG  
FOR THE CITY OF HATTIESBURG  
BY THE CITY OF HATTIESBURG  
FOR THE CITY OF HATTIESBURG



42630

PROJECT LINE CITY HALL 3RD FLOOR RENOVATION

CITY OF DAYTON  
QUOTE REQUEST RESPONSE FORMPage No. 4/27/13  
Date 2060 00  
Order Number

| ITEM DESCRIPTION                                                                                                                               | Request Date | QTY  | UN | Unit Price | Extended Price | Delivery Date | Entered Date |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|------------|----------------|---------------|--------------|
| REMOVE PRIME AND PAINT EXISTING CABINETS AND REPLACE WITH BUE CABINET (INCLUDE HINGES/PULLS). CABINET HARDWARE STYLE AND FINISH TO BE SELECTED | 04/27/13     | 1.00 | EA | 1,500.00   |                |               |              |
| REPLACE CABINET CORNER WITH QUARTZ TOP EQUAL TO BE SELECTED                                                                                    | 04/27/13     | 1.00 | EA | 1,500.00   |                |               |              |
| REMOVE EXISTING CUPBOARD AND REPLACE WITH NEW TO MATCH OR COMPLEMENT EXISTING IN REVISION                                                      | 04/27/13     | 1.00 | EA | 1,900.00   |                |               |              |
| REMOVE EXISTING CUPBOARD AND REPLACE WITH PINK FLOORING MESS. SHOWN ON PLAN. PRST. PRIME AND STAIN TO MATCH APPROVED SAMPLE                    | 04/27/13     | 1.00 | EA | 14,400.00  |                |               |              |
| REMOVE EXISTING WALL AND FLOOR TILE AND REPLACE AS SPECIFIED                                                                                   | 04/27/13     | 1.00 | EA | 3,100.00   |                |               |              |
| REMOVE AND REFACE EXISTING VANITY AND SELECTED PLUMBING AND REPLACE WITH NEW. CABS. SHOWN TO BE SELECTED                                       | 04/27/13     | 1.00 | EA | 4,250.00   |                |               |              |
| REMOVE AND REFACE                                                                                                                              | 04/27/13     | 1.00 | EA | 250.00     |                |               |              |

43539

DATE OF PARTIALS  
DATE RECEIVED FROM

Page No. 4023/3  
Date 20/01/10  
Invoice Number

PROJECT LINE CITY HALL AND FLOOR RENOVATION

ITEM DESCRIPTION

Quantity

Unit

Rate

Amount

Expenditure

Delivery

Receipt

1.000 EA 2,100.00

REMOVE AND GRIND ALL EXISTING FLOORING AND PAINTING IN THE CITY HALL AND FLOOR RENOVATION

1.000 EA 500.00

PREP, PRIME AND PAINT ALL EXISTING PLASTER SURFACES INCLUDING BASES, HEADS, RAILING AND FOSTS. INSTALL NEW WALLS, DOORS TO BE SET IN

1.000 EA 2,100.00

TOTAL SUB TOTAL

449,180.00

*Manoj K*  
5/14/10

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORMPage No. 1  
Date 4/27/18  
Order Number 2660 00B W SULLIVAN BUILDING CON  
4451 HWY 49  
HATTIESBURG MS 39401Mail To. CITY OF HATTIESBURG  
PURCHASING DIVISION  
220 W FRONT ST. 2ND FLOOR  
PO BOX 1898  
HATTIESBURG MS 39401

Phone Number 601 5454512

PRINTED NAME Scott Humphrey

SIGNATURE Scott Humphrey DATE 5-4-18

Shipping terms are F.O.B. destination, freight prepaid

PROJECT LINE: CITY HALL 3RD FLOOR RENOVATION

| ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Request Date | QTY  | UM | Unit Price  | Extended Cost | Delivery Date | Expired Date |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|-------------|---------------|---------------|--------------|
| PREP, PRIME AND PAINT ALL PREVIOUSLY PAINTED WINDOW FRAMES. PATCH AND REPAIR WINDOW HEADS AND JAMES AS REQUIRED. PREP, PRIME AND PAINT ALL PREVIOUSLY PAINTED SURFACES INCLUDING WALLS, DOORS TRIM AND WOODWORK. ALL SURFACES TO BE PREP, PRIME AND PAINT. ALL WALLS COVERED WITH WALL PAPER THAT IS IN CONDITION. CONDUCTIVE FOR A SUCCESSFUL PAINT APPLICATION WHERE WALL PAPER ADHESION HAS FAILED. REMOVE WALL PAPER FROM ENTIRE WALL PLANE. PREP, PRIME AND PAINT | 04/27/18     | 1.00 | EA | \$11,700.00 | \$11,700.00   | 6-4-18        | 7-5-18       |
| WOOD WALL PANELING AND NATURAL DOORS IN MAYOR'S OFFICE TO REMAIN. PROTECT AS NECESSARY WHILE OTHER WORK IS BEING PERFORMED NEARBY. WHERE FINISH HAS WORN OFF                                                                                                                                                                                                                                                                                                           | 04/27/18     | 1.00 | EA | \$3,000.00  | \$3,000.00    | 6-4-18        | 7-5-18       |
| EXISTING WOOD DOORS, WAINSCOTING, WINDOW TRIM AND CROWN MOULDINGS TO REMAIN. PROTECT AS NECESSARY WHILE OTHER WORK IS BEING PERFORMED. REFINISH/RESEAL WOOD AS REQUIRED AROUND WINDOWS AND WHERE FINISH HAS WORN OFF.                                                                                                                                                                                                                                                  | 04/27/18     | 1.00 | EA | \$3,000.00  | \$3,000.00    | 6-4-18        | 7-5-18       |

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORMPage No. . . . 4/27/18  
Date . . . . 2060 00  
Order Number . . . .

PROJECT LINE: CITY HALL 3RD FLOOR RENOVATION

| ITEM DESCRIPTION                                                                                                                              | Request Date | QTY  | UM | Unit Price  | Extended Cost | Delivery Date | Expired Date |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----|-------------|---------------|---------------|--------------|
| PREP PRIME AND PAINT EXISTING CABINETRY AND REPLACE VISIBLE CABINET HARDWARE (HINGES/PULLS). CABINET HARDWARE STYLE AND FINISH TO BE SELECTED | 04/27/18     | 1.00 | EA | \$5,500.00  | \$5,500.00    | 6-4-18        | 7-5-18       |
| REPLACE CABINET COUNTERTOP WITH QUARTZ TOP COLOR TO BE SELECTED                                                                               | 04/27/18     | 1.00 | EA | \$12,500.00 | \$12,500.00   | 6-4-18        | 7-5-18       |
| REMOVE EXISTING CARPET AND REPLACE WITH NEW TO MATCH OR COMPLEMENT EXISTING IN RECEPTION                                                      | 04/27/18     | 1.00 | EA | \$6,800.00  | \$6,800.00    | 6-4-18        | 7-5-18       |
| REMOVE EXISTING CARPET AND REPLACE WITH PINE FLOORING WHERE SHOWN ON PLAN PREP, PRIME AND STAIN TO MATCH APPROVED SAMPLE                      | 04/27/18     | 1.00 | EA | \$27,000.00 | \$27,000.00   | 6-4-18        | 7-5-18       |
| REMOVE EXISTING WALL AND FLOOR TILE AND REPLACE AS SCHEDULED                                                                                  | 04/27/18     | 1.00 | EA | \$5,200.00  | \$5,200.00    | 6-4-18        | 7-5-18       |
| REMOVE AND REPLACE EXISTING VANITY AND RELATED PLUMBING AND REPLACE WITH NEW CONSOLS SINK TO BE SELECTED                                      | 04/27/18     | 1.00 | EA | \$3,900.00  | \$3,900.00    | 6-4-18        | 7-5-18       |
| REMOVE AND REPLACE                                                                                                                            | 04/27/18     | 1.00 | EA | \$800.00    | \$800.00      | 6-4-18        | 7-5-18       |

43530

CITY OF HATTIESBURG  
QUOTE REQUEST RESPONSE FORM

PROJECT LINE: CITY HALL 3RD FLOOR RENOVATION

Page No. 3  
Date 4/27/18  
Order Number 2660 00

| ITEM DESCRIPTION | Request Date | QTY | UM | Unit Price | Extended Cost | Delivery Date | Expired Date |
|------------------|--------------|-----|----|------------|---------------|---------------|--------------|
|------------------|--------------|-----|----|------------|---------------|---------------|--------------|

LIGHT FIXTURE WITH NEW LIGHT FIXTURE TO BE SELECTED BY CITY

REMOVE AND REEPLAGE  
MIRROR HAND TOWEL  
NEW FIXTURES TO BE SELECT BY THE CITY

04/27/18

1.00 EA

\$1,700.00

\$1,700.00

6-4-18 7-5-18

PREP, PRIME AND  
PAINT ALL PREVIOUSLY PAINTED SURFACES INCLUDING RISERS  
TREAS RAILING AND POSTS. INSTALL NEW TACTILE NOSING TO BE  
SELECTED

04/27/18

1.00 EA

\$7,100.00

\$7,100.00

6-4-18 7-5-18

TOTAL BID PRICE \$88,700.00

Per Plan - Alternate #1:  
ADD wood in lieu of Carpet

ADD \$16,950.00

\$16,950.00 6-4-18 7-5-18



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-567**

**File ID:** 2018-567

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Lamar Rutland

**File Created:** 06/21/2018

**Brief Title:** Accept Bid from Warren Paving, Inc. for the Airport  
Taxiway Extension Part 2 Project.

**Final Action:**

**Minute Book Number:** MB2018-171

**Title:**

Acknowledge bids received June 14, 2018 for the Bobby L. Chain Airport Taxiway Extension Part 2 Project and accept the bid from Warren Paving Inc. in the amount of \$783,331.00 as the lowest and best bid; Authorize Mayor to execute contracts upon preparation.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VII.-3

**Sponsors:**

**Enactment Date:**

**Attachments:** Certified Bid Tab, Award Recommendation-City council  
Warren Paving, Hattiesburg Taxiway A Extension Part  
2 - Spec Book, Hattiesburg Taxiway A Extension Part  
2 Plans - Revised, Hattiesburg Taxiway A Extension  
Part 2 - Contract, Executed - Hattiesburg Taxiway A  
Extension Part 2 - Contract with Warren Paving Inc.

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Sharon Waits

**Effective Date:**

### History of Legislative File

| Ver-<br>sion: | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council | 07/03/2018 |         |          |           |                 |         |

### Text of Legislative File 2018-567

**Title**

Acknowledge bids received June 14, 2018 for the Bobby L. Chain Airport Taxiway Extension Part 2 Project and accept the bid from Warren Paving Inc. in the amount of \$783,331.00 as the lowest and best bid; Authorize Mayor to execute contracts upon preparation.



**Summary**

Accept Bid from Warren Paving, Inc. for the Airport Taxiway Extension Part 2 Project.

**Budget Information**

039551.7295.02

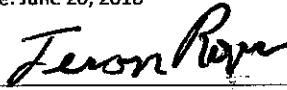
**Expenditure Type**

FAA Grant 90%

**Hattiesburg Bobby L. Chain Municipal Airport - Taxiway Extension Part 2**  
**AIP No. 3-28-0031-0025-2018 Bid Tabulation (June 14, 2018)**

| Bid Item<br>Add. No.1 | Description                                                        | Unit of<br>Measure | Approximate<br>Quantity | Engineers Estimate |                     | Warren Paving, Inc. |                     |
|-----------------------|--------------------------------------------------------------------|--------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|
|                       |                                                                    |                    |                         | Unit Price         | Total               | Unit Price          | Total               |
| P-151                 | Clearing & Demolition                                              | Lump Sum           | 1                       | \$19,000.00        | \$19,000.00         | \$23,500.00         | \$23,500.00         |
| P-152.4.1             | Unclassified Excavation                                            | C.Y.               | 2,400                   | \$11.00            | \$26,400.00         | \$11.00             | \$26,400.00         |
| P-152.4.1             | Unclassified Excavation (Nonparticipating)                         | C.Y.               | 150                     | \$11.00            | \$1,650.00          | \$11.00             | \$1,650.00          |
| P-152.4.2             | Embankment In Place                                                | C.Y.               | 1,900                   | \$15.00            | \$28,500.00         | \$14.35             | \$27,265.00         |
| P-152.4.2             | Embankment In Place (Nonparticipating)                             | C.Y.               | 270                     | \$15.00            | \$4,050.00          | \$14.35             | \$3,874.50          |
| P-209                 | Crushed Aggregate Base Course                                      | C.Y.               | 1,656                   | \$99.00            | \$163,944.00        | \$118.00            | \$195,408.00        |
| P-209                 | Crushed Aggregate Base Course (Nonparticipating)                   | C.Y.               | 644                     | \$99.00            | \$63,756.00         | \$118.00            | \$75,992.00         |
| P-401-8.1(A)          | Bituminous Surface Course                                          | Ton                | 1,225                   | \$98.00            | \$120,050.00        | \$97.50             | \$119,437.50        |
| P-401-8.1(A)          | Bituminous Surface Course (Nonparticipating)                       | Ton                | 325                     | \$98.00            | \$31,850.00         | \$97.50             | \$31,687.50         |
| P-602                 | Bituminous Prime Coat                                              | Gal.               | 1,620                   | \$3.50             | \$5,670.00          | \$3.15              | \$5,103.00          |
| P-602                 | Bituminous Prime Coat (Nonparticipating)                           | Gal.               | 380                     | \$3.50             | \$1,330.00          | \$3.15              | \$1,197.00          |
| P-603                 | Bituminous Tack Coat                                               | Gal.               | 1,520                   | \$3.50             | \$5,320.00          | \$3.00              | \$4,560.00          |
| P-603                 | Bituminous Tack Coat (Nonparticipating)                            | Gal.               | 480                     | \$3.50             | \$1,680.00          | \$3.00              | \$1,440.00          |
| P-620-5.1(A)          | Runway and Taxiway Painting                                        | S.F.               | 3,050                   | \$4.00             | \$12,200.00         | \$4.65              | \$14,182.50         |
| D-701-5.1(D)          | 36" Pipe                                                           | L.F.               | 84                      | \$150.00           | \$12,600.00         | \$98.25             | \$8,253.00          |
| D-705-5.5(B)          | 6" Underdrain Complete (Including Porous Backfill & Filter Fabric) | L.F.               | 1,700                   | \$18.00            | \$30,600.00         | \$19.50             | \$33,150.00         |
| D-751-5.2             | Inlet                                                              | Each               | 1                       | \$8,500.00         | \$8,500.00          | \$8,000.00          | \$8,000.00          |
| T-901-5.1             | Turfing(Seeding Fertilizing and Mulching)                          | Acre               | 3                       | \$5,600.00         | \$16,800.00         | \$1,900.00          | \$5,700.00          |
| S001                  | Mobilization                                                       | Lump Sum           | 1                       | \$29,000.00        | \$29,000.00         | \$78,000.00         | \$78,000.00         |
| S002                  | Semiflush Marker For Taxiway Centerline                            | Each               | 22                      | \$70.00            | \$1,540.00          | \$115.00            | \$2,530.00          |
| S003                  | Construction Layout                                                | Lump Sum           | 1                       | \$15,000.00        | \$15,000.00         | \$25,000.00         | \$25,000.00         |
| S005                  | Taxiway Lighting Modifications and Additions                       | Lump Sum           | 1                       | \$92,615.00        | \$92,615.00         | \$91,000.00         | \$91,000.00         |
| I-3.2                 | Additional Insurance Premium (Nonparticipating)                    | Lump Sum           | 1                       | \$1,000.00         | \$1,000.00          | \$1.00              | \$1.00              |
|                       |                                                                    |                    |                         |                    |                     |                     |                     |
|                       |                                                                    |                    |                         |                    |                     |                     |                     |
|                       | <b>Subtotal</b>                                                    |                    |                         |                    | <b>\$693,055.00</b> |                     | <b>\$783,331.00</b> |

Date: June 20, 2018



Jeron Rogers, P.E.



June 14, 2014

Mr. Lamar Rutland, PE  
Director of Engineering  
City of Hattiesburg  
212 W. Front Street  
Hattiesburg, MS 39401

Subject: Bobby L. Chain (HGB) Airport  
Taxiway Extension Part 2  
AIP(Airport Improvement Project) No.3-28-0031-025-2018

Dear Mr. Rutland,

This is to recommend award of this project to Warren Paving, Inc. who submitted the lowest bid accepted in the amount of \$783,331.00. Although there was only one bid, the total was within thirteen (13) percent of the estimate of probable costs. The work is to complete the second phase of the taxiway extension begun last year. Safety during a precision approach is greatly enhanced by this improvement and the FAA participates in eligible costs at a ninety (90) percent share.

The difference between the estimate and the bid is accountable for the most part to two items, crushed stone base and mobilization costs. The particular high end FAA required crushed stone base, Item P-209, has been trending upwards recently in South Central Mississippi and surrounding areas and that trend is not over. Mobilization costs are not likely to change and therefore a re-bid is unlikely to produce a significantly lower bid result.

Due to increases related to drainage in the final documents and the results of this bid process, the City of Hattiesburg participation costs could potentially increase, \$23,159.00 dependent on final, as built quantities.

Please contact us if you require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeron Rogers".

Jeron Rogers, PE

ARE Consultants, Inc.

1216 S. Morrison, Suite 5 ° Hammond, LA 70403  
800 Spring Street, Suite 214 ° Shreveport, LA 71101  
Phone (318) 222-8252 ° Fax (318) 222-8251

SPECIFICATIONS AND CONTRACT DOCUMENTS

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HATTIESBURG-BOBBY L. CHAIN  
MUNICIPAL AIRPORT  
TAXIWAY A EXTENSION PART 2

AIP NO. 3-28-0031-0025-2018

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CITY OF  
HATTIESBURG

---

Prepared By

**ARE Consultants, Inc.**

800 Spring Street, Suite 214, Shreveport, LA 71101

P.O. Box 38252, (318) 222-8252

1216 S. Morrison, STE 5, Hammond, LA 70403

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April, 2018



4-20-2018

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# CONTRACT DOCUMENTS

## SECTION A: ADVERTISEMENT FOR BIDDERS

Proof of Publication Required.

SEALED BIDS for construction of the following will be received by the City of Hattiesburg in the City Clerks Office, City Hall, Hattiesburg, MS 39401 until 10:00 a.m. Central Time on June 14, 2018 for Hattiesburg-Bobby L. Chain Municipal Airport Taxiway A Extension Part 2(A.I.P. Project No. 3-28-0031-0025-2018) for the City of Hattiesburg.

This project shall generally consist of work which includes: earthwork, base, paving, marking and turfing.

Each bid shall generally be accompanied by a bid bond. All bids must be written accompanied by bid security equal to five (5) percent of the total base bid, in the form of a certified check, cashier's check written by a company properly licensed in Mississippi.

Bids will be publicly opened and read aloud. Any bid received after closing time will be returned unopened.

Copies of the Contract Documents are on file at the City Engineering Office, 212 West Front Street, Hattiesburg, MS 39401 and are open for public inspection.

Contract documents may be examined and secured by licensed contractors, sub-contractors, and material suppliers from ARE Consultants, Inc. at (318)222-8252. Additional copies are available at the City Engineering Office. Make inquiries to obtain plans to Lamar Rutland, PE, Director of Engineering, 212 West Front Street, Hattiesburg, MS 39401. Plans are available upon deposit of One Hundred Dollars (\$100.00) per set for each set obtained. Direct questions to the Engineer at (318) 222-8252. The deposit will be refunded upon return of the drawings and specifications in good condition within ten (10) days after date of opening of bids.

Official bid documents can be downloaded from Central Bidding at [www.centralbidding.com](http://www.centralbidding.com). Electronic bids can be submitted at [www.centralbidding.com](http://www.centralbidding.com).

Evidence that a Contractor holds a valid Mississippi Contractor's License must be presented prior to release of bidding documents and/or submittal of a bid proposal. The required classification is Highway, Street, and Bridge Construction.

It is the policy of the Department of Transportation (DOT) that disadvantaged business enterprises as defined in 49 CFR Part 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or part with Federal funds.

The proposed contract is subject to the Buy American provision under Section 9129 of the Aviation Safety and Capacity Expansion Act of 1990. Details of such requirements are contained in the specifications.

The following question will be asked of all bidders: "Has the bidder defaulted on a contract or ever been involved in litigation with a political subdivision of the State of Mississippi or any other state or country?" \_\_\_\_\_ YES  
\_\_\_\_\_ NO If "YES," please supply full details.

The bids shall be presented in a sealed envelope marked:

Bobby L. Chain Municipal Airport  
BID DATE: June 14, 2018, 10:00 a.m. Central Time  
Taxiway A Extension Part 2  
A.I.P Project No. 3-28-0031-0025-2018  
for the City of Hattiesburg.



No bid may be withdrawn for a period of sixty (60) days. The lowest and best proposal received will be accepted, subject to Section 31-7-31 of the Mississippi Code 1972 Annotated and Amended, and other applicable State Law; but the Council reserves the right to reject any or all proposals received and to waive informalities. PUBLISHED by Order of the Council on the 8th day of May 2018.

A mandatory pre-bid conference is scheduled for 10:00 a.m. Thursday, May 31st, 2018, in the Airport Conference Room, 29 Academy Drive, Hattiesburg Bobby L. Chain Airport, Hattiesburg, MS.

By: \_\_\_\_\_

Kermas Eaton, City Clerk  
City of Hattiesburg

Dates of Publication:

**The Post**

Thursday, May 10, 2018

Thursday, May 17, 2018

**Clarion Ledger**

Thursday, May 10, 2018

Thursday, May 17, 2018

## **SECTION B: INSTRUCTIONS FOR BIDDERS**

### **1. DEFINED TERMS**

Terms used in these Instructions to Bidders which are defined in the General Provisions of the Construction Specifications have the meanings assigned to them in the General Provisions.

### **2. QUALIFICATIONS OF BIDDERS**

To demonstrate his qualifications for the Project, each Bidder must be prepared to submit within five days of Owner's request written evidence of the types set forth in the Special Provisions or General Provisions, such as financial data, previous experience and evidence of authority to conduct business in the jurisdiction where the Project is located.

### **3. EXAMINATION OF CONTRACT DOCUMENTS AND SITE**

3.1 Before submitting his Bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect performance of the Work, (c) familiarize himself with Federal, state, and local laws, ordinances, rules and regulations affecting performance of the Work; and (d) carefully correlate his observations with the requirements of the Contract Documents.

3.2 Reference is made to the General Provisions of the Specifications for the identification of those surveys and investigation reports of subsurface or latent physical conditions at the site or otherwise affecting performance of the Work which have been relied upon by Engineer in preparing the Drawings and Specifications. Owner will make copies of such surveys and reports available to any Bidder requesting them. Before submitting his bid, each Bidder will, at his own expense, make such additional surveys and investigations as he may deem necessary to determine his Bid price for performance of the Work within the terms of the Contract Documents.

3.3 The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has complied with every requirement of this Article 3.

### **4. INTERPRETATIONS**

All questions about the meaning or intent of the Contract Documents shall be submitted to Engineer in writing. Replies will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the bidding documents. Questions received less than five days prior to the date for opening of Bids will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

### **5. BID SECURITY**

7.3 Contractor shall not be required to employ any Subcontractor, other person or organization against whom he has reasonable objection.

## **8. BID FORM**

8.1 The Bid Form is included in the Contract Documents; additional copies may be obtained from Engineer.

8.2 Bid Forms must be completed in ink or by typewriter. The Bid price of each item on the form must be stated in words and numerals; in case of a conflict, words will take precedence. In case of mathematical discrepancies, the unit price shall take precedence.

8.3 NOT USED

8.4 Bids by partnerships must be executed in the partnership name and signed by a partner, his title must appear under his signature and the official address of the partnership must be shown below the signature.

8.5 NOT USED

8.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

8.7 NOT USED

## **9. SUBMISSION OF BIDS**

Bids shall be submitted at the time and place indicated in the Invitation for Bid and shall be submitted in an opaque sealed envelope, marked with the Project title, name and address of the Bidder, Contractor's license number for state in which the work is to be done, and accompanied by the Bid Security and other required documents.

## **10. MODIFICATION AND WITHDRAWAL OF BIDS**

Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening Bids.

## **11. OPENING OF BIDS**

Bids will be opened as indicated in the Invitation to Bid

The amount and type of Bid Security is stated in the Advertisement of Bids. The required security must be in the form of a certified or bank cashier's check made payable to Owner or a bid bond issued by a surety licensed to conduct business in the state where the Project is located and named in the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Department or by a Mississippi domiciled insurance company with at least an A rating in the latest printing of A. M. Best's Key Rating Guide and in accordance with Mississippi law. The Bid Security of the successful Bidder will be retained until he has executed the Agreement and furnished the required Contract Security, whereupon it will be returned; if he fails to execute and deliver the Agreement and furnish the required Contract Security within 10 days of the Notice of Award, Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder whom the Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh day after the executed Agreement is delivered by Owner to Contractor and the required Contract Security is furnished or the sixty-first day after the Bid Opening. Bid Security of other Bidders will be returned within seven days of the Bid Opening.

## **6. CONTRACT TIME**

The number of days for the completion of Work (the Contract Time) is set forth in the Contract Form. Any provisions for liquidated damages are set forth in the Contract Documents. The contract time is established in calendar days.

## **7. SUBCONTRACTORS, ETC.**

7.1 If the Supplementary Conditions, Special Provisions, General Provisions or Specifications require the identity of certain Subcontractors and other persons and organizations to be submitted to Owner in advance of the Notice of Award, the apparent low Bidder, and any other Bidder so requested, will within seven days after the day of the Bid Opening submit to Owner a list of all Subcontractors and other persons and organizations (including those who are to furnish the principal items of materials and equipment) proposed for those portions of the Work as to which such identification is so required. Such list shall be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualification for each such Subcontractor, person and organization if requested by Owner. If Owner or Engineer after due investigation has reasonable objection to any proposed Subcontractor, other person or organization, he may before giving the Notice of Award request the apparent low Bidder to submit an acceptable substitute without an increase in his Bid price. If the apparent low Bidder declines to make any such substitution, he will not thereby sacrifice his Bid Security. Any Subcontractor, other person or organization so listed and to whom Owner or Engineer does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer.

7.2 In contracts where the Contract Price is on the basis of Cost of the Work Plus a Fee. Contractor, prior to the Notice of Award, must identify in writing to Owner those portions of the Work that he proposes to subcontract and after the Notice of Award may only subcontract other portions of the Work with Owner's written consent.

## **12. BIDS TO REMAIN OPEN**

All Bids shall remain open for the period of time stated in the Bid Form after the day of the Bid Opening, but Owner may, in his sole discretion, release any Bid and return the Bid Security prior to the date.

## **13. AWARD OF CONTRACT**

13.1 Owner reserves the right to reject any and all Bid Schedules and Total Bids waive any and all informalities, and the right to disregard all nonconforming or conditional Bids or counter proposals.

13.2 In evaluating Bids, Owner shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and alternates and unit prices if requested on the Bid forms. He may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of materials and equipment) proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations to do the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time. Owner reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to Owner's satisfaction.

13.3 If a contract is to be awarded, it will be awarded to the lowest responsible Bidder, for Bid schedule selected, whose evaluation by Owner indicates to the Owner that the award will be in the best interests of the Project and the Owner.

13.4 If the contract is to be awarded, Owner will give the apparent successful Bidder a Notice of Award within the time period specified for the Bid to be binding in the Bid Form.

13.5 Simultaneously with delivery of the executed counterparts of the Agreement to Owner, Contractor shall deliver to Owner the required Contract Security.

## **SECTION C: MANDATORY CONTRACT PROVISIONS**

### **SPECIAL INSTRUCTION TO BIDDERS REGARDING EEO**

Notice of Requirement for Affirmative Action to  
Ensure Equal Employment Opportunity  
(Executive Order 11246, as amended)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

| Goals for minority<br>participation in<br>each trade | Goals for female<br>participation in<br>each trade |
|------------------------------------------------------|----------------------------------------------------|
| 31.0%                                                | 6.9%                                               |

The goals are applicable to all the contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The contractor's compliance with the executive order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications Set forth in 41 CFR Part 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project, for the sole purpose of meeting the contractor's goals, shall be a violation of the contract, the executive order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director, OFCCP, within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employee identification

number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is the State of Mississippi, Forrest County, City of Hattiesburg.

## **SPECIAL NOTICE TO BIDDERS**

### **BUY AMERICAN - STEEL AND MANUFACTURED PRODUCTS FOR CONSTRUCTION CONTRACTS**

**(Aviation Safety and Capacity Expansion Act of 1990)**

(a) The Aviation Safety and Capacity Expansion Act of 1990 provides that preference be given to steel and manufactured products produced in the United States when funds are expended pursuant to a grant issued under the Airport Improvement Program. The following terms apply:

1. Steel and manufactured products. As used in this clause, steel and manufactured products include (1) steel produced in the United States or (2) a manufactured product produced in the United States, if the cost of its components mined, produced or manufactured in the United States exceeds 60 percent of the cost of all its components and final assembly has taken place in the United States. Components of foreign origin of the same class or kind as the products referred to in subparagraphs (b) (1) or (2) shall be treated as domestic.

2. Components. As used in this clause, components means those articles, materials, and supplies incorporated directly into steel and manufactured products.

3. Cost of Components. This means the cost for production of the components, exclusive of final assembly labor costs.

(b) The successful bidder will be required to assure that only domestic steel and manufactured products will be used by the Contractor, subcontractors material, men, and suppliers in the performance of this contract, except those

(1) that the U. S. Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of 1990, are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality;

(2) that the U. S. Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of 1990, that domestic preference would be inconsistent with the public interest; or

(3) that inclusion of domestic material will increase the cost of the overall project contract by more than 25 percent.



## INSTRUCTIONS REGARDING CONTRACTOR'S INSURANCE

Contractor's Liability Insurance Requirements. The bidder shall provide with the Proposal a listing of both automobile and personal liability insurance coverage currently in force, along with a copy of a Certificate of Insurance as verification of that coverage. In addition, the bidder shall provide a statement of premium cost issued by the agent or insurance carrier for that coverage.

In the event the Owner determines that the low bidder's coverage in force is inadequate, the Owner may require the low bidder to procure additional coverage in amounts specified by the Owner. The cost premiums for such additional coverage shall be paid by the Owner in the form of a reimbursement under the contract.

In the event the low bidder is unable, after diligent effort, to procure such additional coverage as may be required by the Owner, the Owner shall provide such additional coverage, naming the contractor as insured or, at the option of the Owner, reduce the amount of additional coverage required or waive any requirement for additional coverage.

Third Party Coverage. In the event the bidding documents require the contractor to name the consultant and/or the Owner as additional insured, the bidder shall show the premium cost for the additional insured in the Proposal in the item for additional coverage. The amount shown in the bid item for additional premium above cost shall be that amount of additional premium the premium for the coverage shown in the Certificate of Insurance submitted with the bid. In the event additional coverage is required by the Owner, the additional premium cost for third party coverage above the amounts shown in the Certificate of Insurance shall be paid by the Owner in the form of a reimbursement under the contract.

## REQUIRED LANGUAGE IN PROPOSALS FOR AIP CONTRACTS

Section 60-1.7(b) of the Regulations of the Secretary of Labor requires each bidder or prospective prime contractor and proposed subcontractor, where appropriate, to state in the bid or at the outset of negotiations for the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and if so, whether it has filed with the Joint Reporting Committee, the director, an agency, or the former President's Committee on Equal Employment Opportunity all reports due under the applicable filing requirements. In any case in which a bidder or prospective prime contractor or proposed subcontractor which participated in a previous contract subject to Executive Order 10925, 11114, or 11246 has not filed a report due under the applicable filing documents, no contract or subcontract shall be awarded unless such contractor submits a report covering the delinquent period or such other period specified by the FAA or the Director, OFCCP.

Bid or Proposal Form. To effectuate the foregoing requirements, the sponsor is required to include in the bid or proposal form a statement substantially as follows:

The bidder (proposer) shall complete the following statement by checking the appropriate space.

The bidder (proposer) has \_\_\_\_ has not \_\_\_\_ participated in a previous contract subject to the equal opportunity clause prescribed by Executive Order 10925, or Executive Order 11114, or Executive Order 11246.

The bidder (proposer) has \_\_\_\_ has not \_\_\_\_ submitted all compliance reports in connection with any such contract due under the applicable filing requirements; and that representations indicating submission of required compliance reports signed by proposed subcontractors will be obtained prior to award of subcontracts.

If the bidder (proposer) has participated in a previous contract subject to the equal opportunity clause and has not submitted compliance reports due under applicable filing requirements, the Bidder (Proposer) shall submit a compliance report on Standard Form 100, "Employee Information Report EEO-1" prior to the award of contract.

Standard form 100 is normally furnished contractors annually, based on a mailing list currently maintained by the Joint Reporting Committee. In the event a contractor has not received the form, he may obtain it by writing to the following address:

Joint Reporting Committee  
1800 G Street  
Washington, DC 20506

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY  
AND VOLUNTARY EXCLUSION  
(49 CFR PART 29)**

The bidder (offeror) certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees that by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offeror/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

**CERTIFICATION REGARDING FOREIGN TRADE RESTRICTIONS  
(49 CFR PART 30)**

The contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

- a. is not owned or controlled by one or more citizens or nationals of a foreign country included in the list of countries that discriminate against U. S. firms published by the Office of the United States Trade Representative (USTR);
- b. has not knowingly entered into any contract or subcontract for this project with a contractor that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list.
- c. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a contractor or subcontractor who is unable to certify to the above. If the contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the Federal Aviation Administration may direct, through the sponsor, cancellation of the contract at no cost to the Government.

Further, the contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The contractor may rely upon the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous. The contractor shall provide immediate written notice to the sponsor if the contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide immediate written notice to the contractor, if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct, through the sponsor, cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

**BUY AMERICAN CERTIFICATION**  
**(Aviation Safety and Capacity Expansion Act of 1990)**

By submitting a bid/proposal under this solicitation, except for those items listed by the offeror below or on a separate and clearly identified attachment to this bid/proposal, the offeror certifies that steel and each manufactured product, is produced in the United States (as defined in the clause Buy American - Steel and Manufactured Products for Construction Contracts) and that components of unknown origin are considered to have been produced or manufactured outside the United States.

Offerors may obtain from ARE Consultants, Inc. lists of articles, materials, and supplies excepted from this provision.

PRODUCT

COUNTRY OF ORIGIN

**CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT  
OPPORTUNITY**

**GENERAL**

BIDDER'S NAME

ADDRESS

INTERNAL REVENUE SERVICE EMPLOYER IDENTIFICATION NO.

**NONSEGREGATED FACILITIES**

**NOTICE TO PROSPECTIVE FEDERALLY ASSISTED  
CONSTRUCTION CONTRACTORS  
(41 CFR 60-1.8)**

- (1) A Certification of Nonsegregated Facilities must be submitted prior to the award of a federally assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the equal opportunity clause.
- (2) Contractors receiving federally assisted construction contract awards exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause will be required to provide for the forwarding of the following notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the equal opportunity clause.

NOTE: The penalty for making false statements in offers is prescribed in 18 U. S. C. 1001.

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR  
CERTIFICATION OF NONSEGREGATED FACILITIES**

- (1) A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the equal opportunity clause.
- (2) Contractors receiving subcontract awards exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause will be required to provide for the forwarding of this notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the equal opportunity clause.

**NOTE:** The penalty for making false statements in offers is prescribed in 18 U. S. C. 1001.

## **CERTIFICATION OF NONSEGREGATED FACILITIES**

The federally assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the equal opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin, because of habit, local custom, or any other reason. The federally assisted construction agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause, and that he will retain such certifications in his files.

### **NOTICE TO PROSPECTIVE CONTRACTORS OF REQUIREMENT FOR CERTIFICATION OF NONSEGREGATED FACILITIES**

A Certification of Nonsegregated Facilities must be submitted prior to the award of a contract or subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

Certification - The information above is true and complete to the best of my knowledge and belief.

Name and Title of Signer (Please Type)

Signature

Date

**NOTE:** The penalty for making false statements in offers is prescribed in 18 U. S. C. 1001.

## **WAGE, LABOR, EEO, SAFETY AND GENERAL REQUIREMENTS**

### **Part A: FEDERAL AVIATION ADMINISTRATION REQUIREMENTS**

#### **A-1: Airport and Airway Improvement Program Project.**

The work in this contract is included in Airport Improvement Project No. 3-28-0031-0025-2018 which is being undertaken and accomplished by the City of Hattiesburg(Sponsor) in accordance with the terms and conditions of a grant agreement between the Sponsor and the United States, under the Airport and Airway Improvement Act of 1982 (P. L. 97-248) as amended by the Airport and Airway Safety and Capacity Expansion Act of 1987 (P. L. 100-223) and Part 152 of the Federal Aviation Regulations (14 CFR Part 152), pursuant to which the United States has agreed to pay a certain percentage of the costs under those Acts. The United States is not a party to this contract and no reference in this contract to the FAA or any representative thereof, or the United States, by the contract, makes the United States a party to this contract.

#### **A-2: Consent to Assignment.**

The contractor shall obtain the prior written consent of the Sponsor to any proposed assignment of any interest in or part of this contract.

#### **A-3: Convict Labor.**

No convict labor may be employed under this contract.

#### **A-4: Veterans Preference.**

In the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to veterans of the Vietnam era and disabled veterans as defined in Section 515(c)(1) and (2) of the Act. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

#### **A-5: Withholding: Sponsor from Contractor.**

Whether or not payments or advances to the City of Hattiesburg(Sponsor) are withheld or suspended by the FAA, the Sponsor may withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics employed by the contractor or any subcontractor on the work, the full amount of wages required by this contract.

#### **A-6: Nonpayment of Wages.**

If the contractor or subcontractor fails to pay any laborer or mechanic employed or working on the site of the work any of the wages required by this contract, the City of Hattiesburg(Sponsor) may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment or advance of funds until the violations cease.



**A-7: FAA inspection and review.**

The contractor shall allow any authorized representative of the FAA to inspect and review any work or materials used in the performance of this contract.

**A-8: Subcontracts.**

The contractor shall insert in each of his subcontracts the provisions contained in paragraphs A-1, A-3, A-4, A-5, A-6, and A-7 requiring the subcontractors to include these provisions in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.

**A-9: Contract termination.**

Any violation or breach of the terms of this contract on the part of the contractor or subcontractor may result in the suspension or termination of this contract or such other action which may be necessary to enforce the rights of the parties of this agreement. (49 CFR Part 18).

**A-10: Inspection of Records.**

The contractor shall maintain an acceptable cost accounting system. The Sponsor, the FAA, and the Comptroller General of the United States shall have access to any books, documents, paper, and records of the contractor which are directly pertinent to the specific contract for the purposes of making an audit, examination, excerpts, and transcriptions. The contractor shall maintain all required records for three years after the Sponsor makes final payment and all other pending matters are closed. (49 CFR Part 18).

**A-11: Rights to Inventions.**

All rights to inventions and materials generated under this contract are subject to regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed. Information regarding these rights is available from the FAA and the Sponsor. (49 CFR Part 18).

**A-12: General Civil Rights Provisions.**

The contractor assures that it will comply with pertinent statutes, Executive orders and such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision binds the contractor from the bid solicitation period through the completion of the contract. (Section 520, Airport and Airway Improvement Act of 1982).

**Part B: DAVIS-BACON ACT REQUIREMENTS  
(29 CFR PART 5)**

**B-1 Minimum Wages.**

(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1 (b) (2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to laborers or mechanics, subject to the provisions of paragraph (B1) (d) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a) (4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (B-1) (b) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(b) (1) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determinations; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour

Division, Employment Standards Administration, U. S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140).

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140).

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (B1) (b) (2) or (3) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(c) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(d) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that, the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140).

## **B-2 Withholding.**

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to David-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic,

including any apprentice, trainee, or helper, employed or working on the site of work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

### **B-3 Payrolls and Basic Records.**

(a) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her current classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b) (2) (b) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a) (1) (iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1 (b) (2) (B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs (29 CFR 5.5(a) (3) (i) (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017).

(b) (1) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph 5.5(a) (3) (i) above. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U. S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149).

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph B-3 (a) above and that such information is correct and complete;

(ii) That each laborer and mechanic (including each helper, apprentice and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph B-3 (b) (2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(c) The contractor or subcontractor shall make the records required under paragraph B-3 (a) of this section available for inspection, copying or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### **B-4 Apprentices and Trainees.**

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U. S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a

contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or the State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U. S. Department of Labor, Employment Training Administration. The ratio of trainee to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainee's shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any training performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal Employment Opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

#### **B-5 Compliance with Copeland Act Requirements.**

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

#### **B-6 Subcontracts.**

The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a) (1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

#### **B-7 Compliance with Davis-Bacon and Related Act Requirements.**

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

#### **B-8 Disputes Concerning Labor Standards.**

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U. S. Department of Labor, or the employees or their representatives.

#### **B-9 Certification of Eligibility.**

(a) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a) (1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3 (a) of the Davis-Bacon Act or 29 CFR 5.12(a) (1).

(c) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U. S. C. 1001.

#### **B-10 Contract Termination: Debarment.**

A breach of the contract clauses in paragraph B-1 through B-9 of this section and paragraphs C-1 through C-5 of Section C may be grounds for termination of the contract, and for the debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**B-11:** The following inserts include the wage determination for this project. The “Highway” determination shall priority for the project.



General Decision Number: MS170235 04/14/2017 MS235

Superseded General Decision Number: MS20160235

State: Mississippi

Construction Type: Highway

County: Forrest County in Mississippi.

# HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

| Modification Number | Publication Date |
|---------------------|------------------|
| 0                   | 01/06/2017       |
| 1                   | 04/14/2017       |

\* ELEC0903-006 12/01/2016

|                         | Rates    | Fringes    |
|-------------------------|----------|------------|
| ELECTRICIAN.....        | \$ 26.10 | 12.5%+4.00 |
| -----                   |          |            |
| SUMS2010-054 08/04/2014 |          |            |

|                                                                                       | Rates    | Fringes |
|---------------------------------------------------------------------------------------|----------|---------|
| CARPENTER (Form Work Only).....                                                       | \$ 12.00 | 0.00    |
| CEMENT MASON/CONCRETE FINISHER...                                                     | \$ 11.54 | 1.63    |
| HIGHWAY/PARKING LOT STRIPING:<br>Truck Driver (Line Striping<br>Truck).....           | \$ 14.55 | 0.00    |
| INSTALLER - SIGN.....                                                                 | \$ 12.19 | 0.00    |
| INSTALLER: Guardrail.....                                                             | \$ 12.39 | 0.00    |
| IRONWORKER, REINFORCING.....                                                          | \$ 16.44 | 0.00    |
| LABORER: Common or General,<br>Including Asphalt Raking,<br>Shoveling, Spreading..... | \$ 10.34 | 0.00    |
| LABORER: Flagger.....                                                                 | \$ 11.42 | 0.00    |
| LABORER: Grade Checker.....                                                           | \$ 14.82 | 0.00    |
| LABORER: Luteman.....                                                                 | \$ 12.88 | 0.00    |

|                                                                              |          |      |
|------------------------------------------------------------------------------|----------|------|
| LABORER: Mason Tender -<br>Cement/Concrete.....                              | \$ 10.57 | 0.00 |
| LABORER: Pipelayer.....                                                      | \$ 14.50 | 0.00 |
| LABORER: Laborer-Cones/<br>Barricades/Barrels -<br>Setter/Mover/Sweeper..... | \$ 12.17 | 0.00 |
| OPERATOR: Asphalt Spreader.....                                              | \$ 14.71 | 0.00 |
| OPERATOR:<br>Backhoe/Excavator/Trackhoe.....                                 | \$ 14.20 | 0.00 |
| OPERATOR: Bobcat/Skid<br>Steer/Skid Loader.....                              | \$ 11.86 | 0.00 |
| OPERATOR: Broom/Sweeper.....                                                 | \$ 10.94 | 0.00 |
| OPERATOR: Bulldozer.....                                                     | \$ 13.99 | 0.00 |
| OPERATOR: Concrete Saw.....                                                  | \$ 13.93 | 0.00 |
| OPERATOR: Crane.....                                                         | \$ 14.80 | 0.00 |
| OPERATOR: Distributor.....                                                   | \$ 11.46 | 0.00 |
| OPERATOR: Grader/Blade.....                                                  | \$ 16.09 | 0.00 |
| OPERATOR: Loader.....                                                        | \$ 13.99 | 0.00 |
| OPERATOR: Mechanic.....                                                      | \$ 13.00 | 0.00 |
| OPERATOR: Milling Machine.....                                               | \$ 16.96 | 0.00 |
| OPERATOR: Oiler.....                                                         | \$ 12.22 | 0.00 |
| OPERATOR: Paver (Asphalt,<br>Aggregate, and Concrete).....                   | \$ 11.56 | 0.00 |
| OPERATOR: Roller (All Types)....                                             | \$ 12.17 | 0.00 |
| OPERATOR: Scraper.....                                                       | \$ 14.00 | 0.00 |
| OPERATOR: Tractor.....                                                       | \$ 12.00 | 0.00 |
| SURVEYOR (Staking, Marking<br>and Brush Clearing).....                       | \$ 11.56 | 0.00 |
| TRUCK DRIVER: Flatbed Truck.....                                             | \$ 14.72 | 0.00 |
| TRUCK DRIVER: Lowboy Truck.....                                              | \$ 14.18 | 0.00 |
| TRUCK DRIVER: Mechanic.....                                                  | \$ 12.31 | 0.00 |
| TRUCK DRIVER: Water Truck.....                                               | \$ 17.08 | 0.00 |
| TRUCK DRIVER: Dump Truck (All<br>Types).....                                 | \$ 11.58 | 0.00 |
| TRUCK DRIVER: Semi/Trailer<br>Truck.....                                     | \$ 14.36 | 0.00 |

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WELDERS - Receive rate prescribed for craft performing

operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average

rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

**Part C: CONTRACT WORKHOURS AND SAFETY STANDARDS ACT  
REQUIREMENTS  
(29 CFR PART 5)**

**C-1: Overtime Requirements.**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborers or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**C-2: Violation; Liability for Unpaid Wages; Liquidated Damages.**

In the event of any violation of the clause set forth in paragraph C-1 above, the contractor or any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph C-1 above, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph C-1 above.

**C-3: Withholding for Unpaid Wages and Liquidated Damages.**

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph C-2 above.

**C-4: Subcontractors.**

The contractors or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs C-1 through C-4 and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs C-1 through C-4.

**C-5: Working Conditions.**

No contractor or subcontractor may require any laborer or mechanic employed in the performance of any contract to work in surroundings or under working conditions that are unsanitary, hazardous or dangerous to his health or safety as determined under construction safety and health standards (29 CFR Part 1926) issued by the Department of Labor.

**Part D: EQUAL EMPLOYMENT OPPORTUNITY  
(41 CFR PART 60-1.4(b))**

During the performance of this contract, the contractor agrees as follows:

**D-1:** The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

**D-2:** The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

**D-3:** The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

**D-4:** The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

**D-5:** The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

**D-6:** In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedure authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.



**D-7:** The contractor will include the portion of the sentence immediately preceding paragraph D-1 and the provisions of paragraphs D-1 through D-7 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provision, including sanctions for noncompliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

## **Part E: CLEAN AIR AND WATER POLLUTION CONTROL REQUIREMENTS**

**E-1:** Any other provision herein to the contrary notwithstanding, the contractor in carrying out work under this contract, shall at all times comply with all applicable state and federal air and water quality standards; with all pollution control laws; and with such rules, regulations, and directives as may be lawfully issued by a local, state, or federal agency having the area surrounding where work under this contract will be performed. In addition, the contractor shall comply with directives given by the Project Engineer in implementation of the letter and intent of FAA Advisory Circular 150/5370-10, Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control. Copies of this Advisory Circular can be obtained from Department of Transportation, Distribution Unit, TAD-484.3, Washington, D.C. 20590.

**E-2:** Contractors and subcontractors agree:

- a. That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities;
- b. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all other regulations and guidelines issued thereunder;
- c. That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities;
- d. To include or cause to be included in any construction contract or subcontract which exceeds \$100,000 the aforementioned criteria and requirements.

**Part F: STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY  
CONSTRUCTION**

**CONTRACT SPECIFICATIONS  
(41 CFR 60-4.3)**

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;

d. "Minority" includes:

(1) Black (all) persons having origins in any of the Black African racial groups not of Hispanic origin);

(2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);

(3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(4) American Indian or Alaskan native (all persons having origins in any of the original tribal affiliations through membership and participation or community identification).

2. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications.

3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors shall be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the contractor has a collective bargaining agreement to refer either minorities or women shall excuse the contractor's obligations under these specifications, Executive Order 11246 or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the contractor during the training period and the contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a

recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the contractor has collective bargaining agreement has not referred to the contractor a minority person or female sent by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as a superintendent, general foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed and disposition of the subject matter.

h. Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitation to minority and female contractor associations and other business associations.

Conduct a review, at least annually, of all supervisor's adherence to and performance under the contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.

9. The contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally,) the contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.

10. The contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of change in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

**Part G: CONTRACTUAL REQUIREMENTS PURSUANT TO CIVIL RIGHTS ACT  
OF 1964, TITLE VI  
(49 CFR PART 21)**

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations. The contractor shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

2. Nondiscrimination. The contractor, with regard to the work performed by it during the contract, shall not discriminate on the ground of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment.

The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment. In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

4. Information and Reports. The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the owner.

5. Sanctions for Noncompliance. In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the owner shall impose such contract sanctions as it may determine to be appropriate, including but not limited to:

- a. Withholding of payments to the contractor under the contract until the contractor complies, and/or
- b. Cancellation, termination, or suspension of the contract, in whole or in part.

6. Incorporation of Provisions. The contractor shall include the provisions of paragraphs 1 through 5 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the owner may direct as a means of enforcing such provisions including sanctions for noncompliance.



**Part H: TERMINATION OF CONTRACT**  
**(49 CFR PART 18)**

1. The owner may, by written notice, terminate this contract in whole or in part at any time, either for the owner's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services shall be immediately discontinued (unless the notice directs otherwise) and all materials as may have been accumulated in performing this contract, whether completed or in progress, delivered to the owner.

2. If the termination is for the convenience of the owner, the equitable adjustment in the contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.

3. If the termination is due to failure to fulfill the contractor's obligations, the owner may take over the work and prosecute the same to completion by contract or otherwise. In such case, the contractor shall be liable to the owner for any additional cost occasioned to the owner thereby.

4. If, after notice of termination for failure to fulfill contract obligations, it is determined that the contractor had not so failed, the termination shall be deemed to have been effected for the convenience of the owner. In such event, adjustment in the contract price shall be made as provided in paragraph 2 of this clause.

5. The right and remedies of the sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

**Part I: BUY AMERICAN: STEEL AND MANUFACTURED PRODUCTS  
FOR CONSTRUCTION CONTRACTS  
(Aviation Safety and Capacity Expansion Act of 1990)**

(a) The Aviation Safety and Capacity Expansion Act of 1990 provides that preference be given to steel and manufactured products produced in the United States when funds are expended pursuant to a grant issued under the Airport Improvement Program. The following terms apply:

1. Steel and manufactured products. As used in this clause, steel and manufactured products include (1) steel produced in the United States or (2) a manufactured product produced in the United States, if the cost of its components mined, produced or manufactured in the United States exceeds 60 percent of the cost of all its components and final assembly has taken place in the United States. Components of foreign origin of the same class or kind as the products referred to in subparagraphs (b) (1) or (2) shall be treated as domestic.

2. Components. As used in this clause, components means those articles, materials, and supplies incorporated directly into steel and manufactured products.

3. Cost of Components. This means the cost for production of the components, exclusive of final assembly labor costs.

(b) The successful bidder will be required to assure that only domestic steel and manufactured products will be used by the Contractor, subcontractors material men, and suppliers in the performance of this contract, except those

(1) that the U. S. Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of 1990, are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality;

(2) that the U. S. Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of 1990, that domestic preference would be inconsistent with the public interest; or

(3) that inclusion of domestic material will increase the cost of the overall project contract by more than 25 percent.

## **DISADVANTAGED BUSINESS ENTERPRISE CONTRACT PROVISIONS (49 CFR PART 23)**

### **PART A**

Policy. It is the policy of the Department of Transportation (DOT) that disadvantaged business enterprises as defined in 49 CFR Part 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds under this agreement. Consequently, the DBE requirements of 49 CFR Part 23 apply to this agreement.

DBE Obligation. The contractor agrees to ensure that disadvantaged business enterprises as defined in 49 CFR Part 23 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this agreement. In this regard all contractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 23 to ensure that disadvantaged business enterprises have the maximum opportunity to compete for and perform contracts. Contractors shall not discriminate on the basis of race, color, national origin or sex in the award and performance of DOT-assisted contracts.

Compliance. All bidders, potential contractors or subcontractors for this DOT-assisted contract are hereby notified that failure to carry out the DOT policy and the DBE obligation, as set forth above, shall constitute a breach of contract which may result in termination of the contract or such other remedy as deemed appropriate by the owner.

#### Subcontract Clauses.

All bidders and potential contractors hereby assure that they will include the above clauses in all subcontracts which offers further subcontracting opportunities.

### **PART B**

#### It is further understood and agreed:

The award procedure for this solicitation will include the selection criteria of 49 CFR Part 23.45(I) to ensure that prime contracts are awarded to competitors that meet Disadvantaged Business Enterprise (DBE) goals.

Notification is hereby given that DBE goals are established for this prime contract. The goal for firms owned and controlled by socially and economically disadvantaged individuals is ten point four zero (10.40) percent of the dollar value of this contract.

After opening bids, the apparent successful bidder will be required to submit the names and addresses of the DBE firms that will participate in the contract along with a description of the work to be performed by each named firm and the dollar value for each contract (subcontract). If the responses do not clearly show DBE participation will meet the goals above, the apparent successful bidder must provide documentation clearly demonstrating, to the satisfaction of the

airport sponsor, that it made good faith efforts in attempting to do so and that meeting said goals is not reasonably possible. A bid that fails to meet these requirements will be considered non-responsive.

Agreements between bidder/proposer and a DBE in which the DBE promises not to provide subcontracting quotations to other bidders/proposers are prohibited. All bidders and proposers shall make a good faith effort to replace a DBE subcontractor that is unable to perform successfully with another DBE subcontractor.

The bidder shall establish and maintain records and submit regular reports, as required, which will identify and assess progress in achieving DBE subcontract goals and other DBE affirmative action efforts.

## **BIDDERS INSTRUCTIONS AND CHECKLIST**

- 1) Contract is being awarded on the total bid (Base Bid as shown on the first sheet of the (BID FORM) being submitted.
- 2) a) Any proposal received after June 14, 2018 will be returned unopened.
  - b) As a condition of the opening of a bid, the bid must be submitted and sealed in a plain envelope with the following listed information plainly written on the outside or face of the envelope:
    - i) Submitted to: (Name of Owner)
    - ii) for: (Name of the project and contract designation for which the bid is submitted.)
    - iii) Bid of: (Name of person or firm submitting the bid.)
    - iii) Insert: (Permanent address of the bidder)
    - v) Insert: (Post office box number or street address, and the city and state of the bidder.)
    - vi) Certification: For a bid where the total amount is in excess of Fifty Thousand Dollars (\$50,000), the bidder must have a Certificate of Responsibility number shown on the outside of the sealed envelope containing the bid. For a bid where the total amount is not in excess of Fifty Thousand Dollars (\$50,000), the bidder must have a statement signifying this that is shown on the outside of the sealed envelope containing the bid.
  - c) If forwarded by mail, the sealed envelope containing the bid must be enclosed in another sealed envelope addressed to the owner.
  - d) The attention of prospective bidders is directed to all state fees and taxes required for the privilege of doing business within the state.
  - e) Any proposal received that does not comply with this provision will be returned unopened.
  - f) The name of the project is HATTIESBURG-BOBBY L. CHAIN AIRPORT, Taxiway A Extension Part 2.
  - g) Each bid must be accompanied by a bid bond, a certified check or cashier's check for an amount equal to five percent (5%) of the total bid as a bid guarantee.
  - h) Successful bidders will be required to execute the standard form of "Contract Agreement" for construction, together with a 100% performance bond and a 100% payment bond, within fifteen (15) days after formal award of the contract. The bonds shall be acceptable

to the owner and shall be executed by a company licensed to do business in the State of Mississippi. The bonds shall either be signed or countersigned by a Mississippi resident agent of the surety company.

- i) The time allowed for completing this project is one hundred (100) calendar days, commencing with the date of the "Notice to Proceed." Failure to complete the work within the allowable contract time will result in the assessment of liquidated damages of one thousand dollars (\$1,000.00) per calendar day after the expiration of contract time.
- j) If the contractor should experience unforeseen delays due to causes beyond its control, i.e., receipt of materials, weather delays, etc., these time periods may be extended by the owner, based upon justification received by the engineer from the contractor, and the engineer's recommendation to the owner.
- k) The bidder understands that the unit prices included on the proposal form as a part of its bid shall be held good and may not be altered or withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving bids.
- l) The owner's intent in performing this work is to repair existing drainage and improve safety area.

### 3) Bid Conditions, Disadvantaged Business Enterprise Program

- a) The following bid conditions are applied to this Department of Transportation (DOT) assisted contract. Submission of a proposal by a prospective contractor shall constitute full acceptance of these bid conditions.
  - i) Definition. Disadvantaged Business Enterprise (DBE) as used in this contract shall have the same meaning as defined in Paragraph 23.62 of Subpart D to 49 CFR Part 23.
  - ii) Policy. It is the policy of DOT that disadvantaged business enterprises as defined in 49 CFR Part 23 shall have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with federal funds. Consequently the DBE requirements of 49 CFR Part 23 apply to this contract.
  - iii) DBE Obligation. The contractor agrees to ensure that disadvantaged business enterprises as defined in 49 CFR Part 23 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with federal funds. In this regard all contractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 23 to ensure that disadvantaged business enterprises have the maximum opportunity to compete for and perform contracts. Contractors shall not discriminate on the basis of race, color, national origin or sex in the award and performance of DOT assisted contracts.
  - iv) Compliance. All bidders, potential contractors, or subcontractors for this DOT-

assisted contract are hereby notified that failure to carry out the DOT policy and the DBE obligation, as set forth above, shall constitute a breach of contract that may result in termination of the contract or such other remedy as deemed appropriate by the owner.

- v) Subcontract Clauses. All bidders and potential contractors hereby assure that they will include the above clauses in all subcontracts which offer further subcontracting opportunities.
- vi) Contract Award. Bidders are hereby advised that meeting DBE subcontract goals or making a good faith effort to meet such goals are conditions of being awarded this DOT-assisted contract. The owner proposes to award the contract to the lowest responsible bidder submitting a reasonable bid provided he has met the goals for DBE participation or, if failing to meet the goals, it has made good faith effort to meet the established goals for DB E participation. The bidder is advised that the owner has sole authority to determine if the bidder has made sufficient effort toward meeting DBE goals to qualify for the contract award. The owner reserves the right to reject any or all bids submitted.
- vii) Subcontract Goals. The attainment of goals established for these contracts are to be measured as a percentage of the total dollar value of the contract. The goals established for this contract is ten point four zero percent (10.40%) (based on historical and availability references of minorities, females, and other) to be performed by the DBE's.
- viii) Available DBE's. The owner has on file a DBE program which has been approved by the Federal Aviation Administration. This program contains a listing of known DBE's that have been certified by a sponsor of one or more DOT programs. Bidders are encouraged to inspect this program to assist in locating DBE's for the work. Other DBE's may be certified and added to the list in accordance with the owner's approved DBE program. Credit toward the DBE goals will not be counted unless the DBE to be used has been certified.
- ix) Contractor's Required Submission. The owner requires the submission of the following "Non-DBE Subcontracts" information within ten (10) days after the bid opening and prior to award of the contract under this solicitation. Certain other DBE information may also be required.

### NON-DBE SUBCONTRACTS

| Non-DBE Subcontractors<br>Names and Addresses | Subcontract<br>Work Item | Dollar Value of<br>Subcontract Work |
|-----------------------------------------------|--------------------------|-------------------------------------|
|-----------------------------------------------|--------------------------|-------------------------------------|

|       |       |       |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

|                                         |         |
|-----------------------------------------|---------|
| Total Dollar Value of Sub Contract Work | _____   |
| Total Dollar Value of Basic Bid         | _____   |
| Percent of Total                        | _____ % |

### WOMEN SUBCONTRACTS

| Women Subcontractors<br>Names and Addresses | Subcontract<br>Work Item | Dollar Value of<br>Subcontract Work |
|---------------------------------------------|--------------------------|-------------------------------------|
|---------------------------------------------|--------------------------|-------------------------------------|

|       |       |       |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

|                                        |         |
|----------------------------------------|---------|
| Total Dollar Value of Subcontract Work | _____   |
| Total Dollar Value of Basic Bid        | _____   |
| Percent of Total                       | _____ % |

### DBE SUBCONTRACTS

| DBE Subcontractors<br>Names and Addresses | Subcontract<br>Work Item | Dollar Value of<br>Subcontract Work |
|-------------------------------------------|--------------------------|-------------------------------------|
|-------------------------------------------|--------------------------|-------------------------------------|

|       |       |       |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

|                                        |       |
|----------------------------------------|-------|
| Total Dollar Value of Subcontract Work | _____ |
| Total Dollar Value of Basic Bid        | _____ |
| Percent of Total                       | _____ |



- x) Contractor Assurance. The bidder hereby assures that he will meet one of the following, as appropriate:
  - (1) The DBE participation goal as established in paragraph 2(a) vii above.
  - (2) The DBE participation percentage as shown in paragraph 2(a) vii, which was submitted as a condition of contract award.
- b) Agreements between bidder/proposer and DBE in which the DBE promises not to provide subcontracting quotations to other bidders/proposers are prohibited. The bidder shall make a good faith effort to replace a DBE subcontract that is unable to perform successfully with another DBE subcontractor. Substitution must be coordinated and approved by the owner. The bidder shall establish and maintain records and submit regular reports, as required, that will identify and assess progress in achieving DBE subcontract goals and other DBE affirmative action efforts.
- c) If the contractor fails to meet the contract goals established in paragraph 2(a) vii above, the following information must be submitted prior to contract award to assist the owner in determining whether or not the contractor made acceptable good faith efforts to meet the contract goal. This information (when applicable) as well as the DBE information should be submitted as specified in paragraph 2b above.
- d) Suggested guidance for use in determining if good faith efforts were made by a contractor is included in Appendix A to 49 CFR Part 23, Subpart 23.45(h), revised as of April 27, 1981.
- e) A list of the efforts that a contractor may make and the owner may use in making a determination as to the acceptability of a contractor's efforts to meet the goal as included in Appendix A are as follows:
  - i) Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by the recipient to inform DBE's of contracting and subcontracting opportunities;
  - ii) Whether the contractor advertised in general circulation, trade association, and minority-focus media concerning the subcontracting opportunities;
  - iii) Whether the contractor provided written notice to a reasonable number of specific DBE's that their interest in the contract was being solicited in sufficient time to allow the DBE's to participate effectively;
  - iv) Whether the contractor followed up initial solicitations of interest by contacting

DBE's to determine with certainty whether the DBE's were interested;

- v) Whether the contractor selected portions of work to be performed by DBE's in order to increase the likelihood of meeting the DBE goal (including breaking down contracts into economically feasible units to facilitate DBE participation, where appropriate);
- vi) Whether the contractor provided interested DBE's with adequate information about the plans, specifications, and requirements of the contract;
- vii) Whether the contractor negotiated in good faith with interested DBE's, not rejecting DBE's as unqualified without sound reasons based on a thorough investigation of their capabilities;
- viii) Whether the contractor made efforts to assist interested DBE's in obtaining bonding, lines of credit, or insurance required by the recipient of contractor; and
- ix) Whether the contractor effectively used the services of available minority community organizations; minority contractors' groups; local and state Federal Minority Business Assistance Offices; and other organizations that provide assistance in the recruitment and placement of DBE's.

NOTE: The nine items set forth above are merely suggested criteria and the owner may specify that you submit information on certain other actions a contractor took to secure a DBE participation in an effort to meet the goals. A contractor may also submit to the owner other information on efforts to meet the goals.

## **CHECKLIST**

1. Bid forms.
2. Bid bond or bid security.
3. Acknowledge all addenda.
4. Contractor's name and license number on the outside of the envelope.
5. Proper labeling as bid for project on outside of the envelope.
6. Delivered or addressed to the Director of Purchasing.
7. Authorized signature of bidder on bid forms.
8. Bidder is advised to pay strict attention to bond requirements.

**SECTION D: BID INFORMATION**

**BID FORM**

DATE : \_\_\_\_\_, 2018

NAME OF BIDDER:

MISSISSIPPI CONTRACTOR LICENSE NO.

City Clerk's Office  
City of Hattiesburg  
200 Forrest Street  
Hattiesburg, MS 39401

Gentlemen:

The undersigned, being a qualified bidder in compliance with your Advertisement for Bids for the construction of:

**HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT  
TAXIWAY A EXTENSION PART 2**

AIP No. 3-28-0031-0025-2018  
for the  
CITY OF HATTIESBURG

Having examined the plans and specifications with related documents, and having examined the sites of the proposed work, hereby proposes to construct the project in accordance with the Contract Documents, within the time set forth therein, and at the prices stated hereinafter. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this Bid is a part. This "unit price" Bid shall be invoiced based on completed installed quantities.

The undersigned Bidder agrees to fully complete the Project within one hundred (100) calendar days from the date of the "Order to Proceed". The Bidder agrees to pay as liquidated damages, the sum of One Thousand Dollars (\$1,000.00) for each consecutive calendar day thereafter. The Bidder further agrees that this bid shall be good and may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving bids. In the event the Owner issues the Notice of Award during this period, the Bid accepted shall continue to remain binding until the successful Bidder delivers his executed Contract Documents to the Owner.

The Bidder acknowledges receipt of, and makes a part of this proposal the following addenda: \_

The Bidder's attention is directed to the "Instructions to Bidders" contained in these contract documents. It shall be the Bidder's responsibility to review and comply with these instructions.

The bidder shall complete the following statements by checking the appropriate space.

The bidder has \_\_\_\_ has not \_\_\_\_ participated in a previous contract subject to the equal opportunity clause prescribed by Executive Order 10925, or Executive Order 11114, or Executive Order 11246.

The bidder has \_\_\_\_ has not \_\_\_\_ submitted all compliance reports in connection with any such contract due under the applicable filing requirements; and that representations indicating submission of required compliance reports signed by proposed subcontractors will be obtained prior to award of subcontracts.

If the bidder has participated in a previous contract subject to the equal opportunity clause and has not submitted compliance reports due under applicable filing requirements, the Bidder shall submit a compliance report on Standard Form 100, "Employee Information Report EEO-1" prior to the award of contract.

Bidder will execute the formal contract within ten (10) days after original date of Owner's Notice of Award and will deliver a Surety Bond or Bonds for the faithful performance of the Contract, per these drawings and specifications. A certificate of insurance shall also be delivered.

Bid Security is attached without endorsement, in the sum of five percent (5%) of the total  
of the Base Bid

(\$ \_\_\_\_\_ ) dollars  
(In Writing)

is to become the property of the Owner in the event the Contract and Bond are not executed within the time above set forth.

(SEAL) If bid is by a corporation

Respectfully submitted,

Bidder

By:

Title

\_\_\_\_\_ Address

# **BID FORM**

BID SCHEDULE – BASE BID  
Hattiesburg-Bobby L. Chain Municipal Airport  
Taxiway A Extension Part 2  
AIP No. 3-28-0031-0025-2018

| Bid Item Number | Description                                   | Approximate Quantity | Unit of Measure | Unit Price in Numbers | Unit Price in Words (Ink or Typed) |
|-----------------|-----------------------------------------------|----------------------|-----------------|-----------------------|------------------------------------|
| P-151           | Clearing & Demolition                         | LUMP SUM             | LUMP SUM        |                       | Dollars<br>Cents                   |
| P-152.4.1       | Unclassified Excavation                       | 2,400                | C.Y.            |                       | Dollars<br>Cents                   |
| P-152.4.1       | Unclassified Excavation<br>(Nonparticipating) | 150                  | C.Y.            |                       | Dollars<br>Cents                   |
| P-152.4.2       | Embankment In Place                           | 1,900                | C.Y.            |                       | Dollars<br>Cents                   |
| P-152.4.2       | Embankment In Place<br>(Nonparticipating)     | 270                  | C.Y.            |                       | Dollars<br>Cents                   |
| P-209           | Crushed Aggregate Base Course                 | 1,656                | C.Y.            |                       | Dollars<br>Cents                   |

**Contractor Note:** Unit prices include all costs required to complete construction, ready for operation in accordance with contract documents, including "mobilization and demobilization" costs. The costs of work not designated to be paid for under a specific item, shall be prorated over applicable pay items. Separate measurements of work for payment will not be made unless designated herein.

**'BID FORM**  
**BID SCHEDULE – BASE BID**  
**Hattiesburg-Bobby L. Chain Municipal Airport**  
**Taxiway A Extension Part 2**  
**AIP No. 3-28-0031-0025-2018**

| Bid Item Number | Description                                         | Approximate Quantity | Unit of Measure | Unit Price in Numbers | Unit Price in Words (Ink or Typed) |
|-----------------|-----------------------------------------------------|----------------------|-----------------|-----------------------|------------------------------------|
| P-209           | Crushed Aggregate Base Course<br>(Nonparticipating) | 644                  | C.Y.            |                       | Dollars _____<br>Cents _____       |
| P-401-8.1(A)    | Bituminous Surface Course                           | 1,225                | C.Y.            |                       | Dollars _____<br>Cents _____       |
| P-401-8.1(A)    | Bituminous Surface Course<br>(Nonparticipating)     | 325                  | C.Y.            |                       | Dollars _____<br>Cents _____       |
| P-602           | Bituminous Prime Coat                               | 1,620                | GAL             |                       | Dollars _____<br>Cents _____       |
| P-602           | Bituminous Prime Coat<br>(Nonparticipating)         | 380                  | GAL             |                       | Dollars _____<br>Cents _____       |
| P-603           | Bituminous Tack Coat                                | 1,520                | GAL             |                       | Dollars _____<br>Cents _____       |

**Contractor Note:** Unit prices include all costs required to complete construction, ready for operation in accordance with contract documents, including "mobilization and demobilization" costs. The costs of work not designated to be paid for under a specific item, shall be prorated over applicable pay items. Separate measurements of work for payment will not be made unless designated herein.

**BID FORM**  
**BID SCHEDULE – BASE BID**  
**Hattiesburg-Bobby L. Chain Municipal Airport**  
**Taxiway A Extension Part 2**  
**AIP No. 3-28-0031-0025-2018**

| Bid Item Number | Description                                                        | Approximate Quantity | Unit of Measure | Unit Price in Numbers | Unit Price in Words (Ink or Typed) |
|-----------------|--------------------------------------------------------------------|----------------------|-----------------|-----------------------|------------------------------------|
| P-603           | Bituminous Tack Coat<br>(Nonparticipating)                         | 480                  | GAL             |                       | Dollars _____<br>Cents _____       |
| P-620-5.1(A)    | Runway and Taxiway Painting                                        | 3,050                | S.F.            |                       | Dollars _____<br>Cents _____       |
| D-701-5.1 (D)   | 36" Pipe                                                           | 84                   | L.F.            |                       | Dollars _____<br>Cents _____       |
| D-705-5.5(B)    | 6" Underdrain Complete (Including Porous Backfill & Filter Fabric) | 1,700                | L.F.            |                       | Dollars _____<br>Cents _____       |
| D-751-5.2       | Inlet                                                              | 1                    | E.A.            |                       | Dollars _____<br>Cents _____       |
| T-901-5.1       | Turfing (Seeding Fertilizing and Mulching)                         | 3                    | ACRE            |                       | Dollars _____<br>Cents _____       |

**Contractor Note:** Unit prices include all costs required to complete construction, ready for operation in accordance with contract documents, including "mobilization and demobilization" costs. The costs of work not designated to be paid for under a specific item, shall be prorated over applicable pay items. Separate measurements of work for payment will not be made unless designated herein.



## BID FORM

BID SCHEDULE – BASE BID  
Hattiesburg-Bobby L. Chain Municipal Airport  
Taxiway A Extension Part 2  
AIP No. 3-28-0031-0025-2018

| Bid Item Number | Description                                     | Approximate Quantity | Unit of Measure | Unit Price in Numbers | Unit Price in Words (Ink or Typed) |
|-----------------|-------------------------------------------------|----------------------|-----------------|-----------------------|------------------------------------|
| S001            | Mobilization                                    | LUMP SUM             | LUMP SUM        |                       | Dollars<br>Cents                   |
| S002            | Semiflush Marker For Taxiway Centerline         | 22                   | EACH            |                       | Dollars<br>Cents                   |
| S003            | Construction Layout                             | LUMP SUM             | LUMP SUM        |                       | Dollars<br>Cents                   |
| S005            | Taxiway Lighting Modifications and Additions    | LUMP SUM             | LUMP SUM        |                       | Dollars<br>Cents                   |
| 1-3.2           | Additional Insurance Premium (Nonparticipating) | LUMP SUM             | LUMP SUM        |                       | Dollars<br>Cents                   |
|                 |                                                 |                      |                 |                       | Dollars<br>Cents                   |

Contract time is ninety (90) calendar days.

Total Bid Schedule – Base Bid \$ \_\_\_\_\_

**Contractor Note:** Unit prices include all costs required to complete construction, ready for operation in accordance with contract documents, including "mobilization and demobilization" costs. The costs of work not designated to be paid for under a specific item, shall be prorated over applicable pay items. Separate measurements of work for payment will not be made unless designated herein.

SHEETS 43 thru 47 NOTE USED

## **BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

\_\_\_\_\_ as Principal, and

as Surety, are hereby held and firmly bound unto

as OWNER in the penal sum of

for the payment of which, well and truly to be made, we hereby jointly and severally bind

ourselves, successors and assigns. Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_. The

Condition of the above obligation is such that whereas the Principal has submitted to

a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing,

for the:

### **HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT TAXIWAY A EXTENSION PART 2**

#### **A.I.P Project No. 3-28-0031-0024-2018 for the CITY OF HATTIESBURG**

NOW, THEREFORE,

- a) If said BID shall be rejected, or
- b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, The Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

IMPORTANT NOTE: Surety bonds shall be procured according to Mississippi State Law. Any surety bond written for a public works project shall be written by a surety or insurance company currently on the U.S. Department of the Treasury Financial Management Service list of approved bonding companies which is published annually in the Federal Register, or by a Mississippi domiciled insurance company with at least an A-rating in the latest printing of the A.M. Best's Key Rating Guide to write individual bonds up to ten percent of policyholders' surplus as shown in the A.M. Best's Key Rating Guide or by an insurance company that is either domiciled in Mississippi or owned by Mississippi residents and is licensed to write surety bonds.

**AFFIDAVIT**

STATE OF MISSISSIPPI

COUNTY OF \_\_\_\_\_

BEFORE ME, the undersigned authority, personally came and appeared,

\_\_\_\_\_, who after first being sworn, deposes and says: that  
he is \_\_\_\_\_ (a partner of the firm of, etc.) \_\_\_\_\_.

The party making the foregoing Proposal or bid; that such bid is genuine and not collusive or a sham; that said bidder has not colluded, conspired, connived, or agreed directly or indirectly, with any bidder or person to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement, or collusion, or communication or conference with any person to fix the bid price of affiant or any other bidder, or to fix any overhead profit or cost element of said bid price or that of any other bidder, or to secure any advantage against THE CITY OF HATTIESBURG, State of Mississippi, Owner, or any person interested in the proposed Contract; and that all statements contained in said proposal or bid, or the contents thereof, or divulged information or data relative hereto to any association or any member or agent thereof, are true.

\_\_\_\_\_

SWORN TO AND SUBSCRIBED

BEFORE ME ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_,

20 \_\_\_\_.

\_\_\_\_\_  
(Notary Public)

My commission expires \_\_\_\_\_.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND  
VOLUNTARY EXCLUSION -- LOWER TIER COVERED TRANSACTIONS**

This certificate is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 49 CFR Part 29.

1. The prospective lower tier participant certifies, by submissions of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

---

*Organization Name*

*Project Name*

---

*Authorized Representative*

*Title*

---

*Signature*

*Date*

## ELIGIBILITY QUESTIONNAIRE

NAME:

BUSINESS ADDRESS:

FEDERAL IDENTIFICATION NUMBER:

NAMES OF PRINCIPALS (Officers, Directors, Partners or Owners):

Has the corporation or any principal -

1. Been convicted or had a civil judgment against it involving fraud or any criminal offense in connection with the obtaining or attempt to obtain a public or private contract? If so, please explain in detail.
2. Been convicted or had a civil judgment against it concerning the violation of any federal or state antitrust statute. If so, please explain in detail.
3. Been convicted or had a civil judgment against it concerning the commission of any embezzlement, theft, forgery, bribing, falsification or destruction of records, making false statements, receiving stolen property, making false claims, or obstruction of justice. If so, please explain in detail.

4. Been convicted or had a civil judgment against it involving offenses indicating a lack of business integrity. If so, please explain in detail.
5. Has the corporation violated any public contract or transaction through:
  - a. Willful failure to perform;
  - b. Unsatisfactory performance;
  - c. Willful violation of any statute or regulation.If so, please explain in detail.
6. Has the corporation or any principal been debarred or suspended from transactions with any agency of the U.S. Government, state of Mississippi or any other state? If so, please explain in detail.
7. Has the corporation willfully done business with any person or corporation that it knows has been debarred or suspended from federal or state transactions. If so, please explain in detail.
8. Has the corporation failed to pay substantial debt to the United States or any of its agencies? If so, please explain in detail.
9. Has the corporation ever entered into a voluntary exclusion from transactions with the United States or its agencies? If so, please explain in detail.



The undersigned authorized corporate representative, partner, or owner avers that the information supplied herein is true and correct and that the assertions are of the essence of the acceptance of a bid. If any information is willfully withheld or answered falsely, the City of Hattiesburg may declare the contract breached.

\_\_\_\_\_, Mississippi this \_\_\_\_\_ day of \_\_\_\_\_, 20

*Authorized Representative*

**ACKNOWLEDGMENT OF CONTINUING  
OBLIGATION TO INFORM**

The undersigned authorized representative of the bidder acknowledges that he understands that the bidder has the continuing obligation to inform the City of Hattiesburg of any matters concerning its eligibility and specifically any matters set forth in the Eligibility Questionnaire. Failure to inform shall be the basis for the City to declare the contract breached.

\_\_\_\_\_, Mississippi this \_\_\_\_\_ day of \_\_\_\_\_, 20

*Authorized Representative*

## SECTION E: CONTRACT

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_,  
State of Mississippi, hereinafter called "Owner" and  
\_\_\_\_\_,  
hereinafter called the "Contractor".

WITNESSETH THAT, the Owner and Contractor do mutually agree as follows:

1. In consideration of the price for the work herein specified in the bid proposal to be paid by the Owner to the Contractor at the time and in a manner hereinafter provided, the Contractor does hereby agree to construct complete in every detail as follows:

### **HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT TAXIWAY A EXTENSION PART 2**

**A.I.P Project No. 3-28-0031-0025-2018  
for the  
CITY OF HATTIESBURG**

in compliance with the advertisement of Bids, Proposal Form, Contract, Performance Bond, General Provisions, Specifications, Plans, and Addenda.

2. This price shall include the cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, transportation, and other accessories and services necessary to complete this project, in accordance with the Contract Documents.

3. The Contractor shall commence work under this Contract within ten (10) days from the date of the written "Order to Proceed" issued by the Owner. The Contractor shall complete all work under the Contract within one hundred (100) calendar days from the date of the "Order to Proceed".

The Owner has determined, and the Contractor agrees, that the liquidated damages for a delay in completion of this Contract will be One Thousand Dollars (\$1,000.00) per working day in excess of the stated time of completion.

4. That upon satisfactory completion of the work and approval by the Engineer, the Owner will issue a written acceptance of the work to the Contractor, who will immediately thereafter file same with the Recorder of Mortgages in County.

5. A retainage of ten percent (10%) shall be withheld from each progress payment. Upon successful clearance of the lien, the Contractor shall submit a final invoice, with the clear lien certificate, for payment by the Owner in accordance with standard payment procedures established by the City of Hattiesburg.

6. The Owner agrees to pay the Contractor for the performance of the Contract as provided in the Specifications, and to make monthly payments on account thereof as provided in the General conditions. The contract amount, as presented in bid by Contractor is \$ \_\_\_\_\_ or \_\_\_\_\_ (in words).

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in three (3) original counterparts on the day and year first herein above written.

WITNESSES:

Contractor

---

Signature

---

Title

WITNESSES:

Owner

---

Signature

---

Title

**SECTION F: PERFORMANCE AND PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: That we (1) \*

and (2) \* \_\_\_\_\_ hereinafter called "Principal" and (3) \*

a Surety Company authorized to do and doing business in the State of Mississippi, hereinafter called "Surety" are held and firmly bound unto the City of Hattiesburg, hereinafter called

"Owner" in penal sums of \_\_\_\_\_ dollars (\$ \_\_\_\_\_)

Performance Bond and \_\_\_\_\_ dollars (\$ \_\_\_\_\_ ) Payment

Bond in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that, whereas, the Principal entered into a certain contract with the Owner dated the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_, a copy of which is hereto attached and made a part hereof for the furnishing of:

**HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT  
TAXIWAY A EXTENSION PART 2**

**A.I.P Project No. 3-28-0031-0025-2018  
for the  
CITY OF HATTIESBURG**

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said contract during the original term thereof which may be granted by the owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, and shall promptly make payment to all persons, firms,

subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment, and tools, consumed or used in connection with the prosecution of such work, and all insurance premiums on said work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alterations or addition to the terms of the contract or to the work to be performed there under or the specifications accompanying the same shall in anyway affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work of the Specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

ATTEST:

\_\_\_\_\_  
(Principal Secretary)

Principal

BY:

\_\_\_\_\_  
Witness as to Principal

\_\_\_\_\_  
Address

Address

ATTEST:

(SEAL)

\_\_\_\_\_  
(Surety) Secretary

Surety

\_\_\_\_\_  
Attorney-in-Fact

BY:  
Witness as to Surety

\_\_\_\_\_  
Address

Address



NOTE: DATE OF BOND MUST NOT BE PRIOR TO DATE OF AGREEMENT.

- \* 1. Correct name of Contractor.
- \* 2. A Corporation, a Partnership, or an Individual, as case may be.
- \* 3. Correct name of Surety.

**NOTE:** Contractor shall furnish performance and payment bonds as a security for the faithful performance and payment of all his obligations under the Contract Documents. These bonds shall be in amounts at least equal to the Contract Price, and (except as otherwise provided) in such form and with such sureties as are licensed to conduct business in the State where the Project is located and are named in the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Department, or by a Mississippi domiciled insurance company with at least an A rating in the latest printing of A.M. Best's Key Rating Guide and in accordance with Mississippi R.S. 38:2219.

**SECTION G: CERTIFICATE AND RELEASE**

FROM:

*(Name of Contractor)*

TO: City Council, City of Hattiesburg, Mississippi

RE: Contract entered into on the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_,

between the City of Hattiesburg, Mississippi and

*(Name of Contractor)*

of \_\_\_\_\_, \_\_\_\_\_  
*(City) (State)*

**HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT  
TAXIWAY A EXTENSION PART 2**

**A.I.P Project No. 3-28-0031-0025-2018  
for the  
CITY OF HATTIESBURG**

KNOW ALL MEN BY THESE PRESENTS:

A. The undersigned hereby certified that there are no outstanding claims of laborers, material, men, subcontractors or others arising out of the performance of this Contract, which might be asserted against the City, represented by the Commission Council, and the undersigned will agree that in the event of the assertion of any such claims against the City represented by the Commission Council, the undersigned will indemnify and save harmless the City from any such claims.

B. That the undersigned hereby acknowledges receipt from the City of all sums payable to the undersigned by the City under or pursuant to the above mentioned contract, with the following exceptions:

(List all exceptions here. If none, state "none".)

C. The undersigned further certifies and acknowledges that the City has duly performed and fulfilled all the terms, provisions and conditions to be performed or fulfilled under or pursuant to said Contract (with the exceptions as noted above).

D. That the undersigned, except as regard items listed in paragraph "B" in consideration of the sum of \$1 paid to the undersigned, receipt whereof is hereby acknowledged, does hereby release the City from all claims arising under or by virtue of said Contract.

IN WITNESS WHEREOF, the undersigned has signed and sealant

this instrument this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

\_\_\_\_\_ (*Seal*)

\_\_\_\_\_, being first duly sworn on oath, deposes and says first, that he is the \_\_\_\_\_ of (*Title*) \_\_\_\_\_, second, that he had read the

(*Name of Company*)

foregoing certificate by him subscribed as \_\_\_\_\_ of  
(*Title*)

the \_\_\_\_\_.  
(*Name of Company*)

The matters and things stated therein are, to the best of his knowledge and belief, true.

(*Name*)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

## SECTION H: SPECIAL PROVISIONS

**H-01. NAME OF PROJECT.** The project shall be known as

**HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT  
TAXIWAY A EXTENSION PART 2**

**A.I.P Project No. 3-28-0031-0025-2018  
for the  
CITY OF HATTIESBURG**

**H-02. OWNER.** The Owner is the City of Hattiesburg, Mississippi represented by its Mayor, domiciled in the City Hall of Hattiesburg, Mississippi.

**H-03. LOCATION.** The project is located approximately eight miles south east of downtown Hattiesburg, Mississippi.

**H-04. SOURCE OF FUNDS.** Owner's Funds for construction have been provided by proceeds from airport revenues.

**H-05. ACCESSIBILITY.** Access to the airport site may be gained by traveling south on US Highway 49, turn at its intersection with JM Tatum Industrial Drive and continue to Academy Drive.

**H-06. DOCUMENTS FORMING THE CONTRACT.** The documents forming the contract documents include Contract Documents and Specifications for HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT TAXIWAY A EXTENSION A.I.P Project No. 3-28-0031-0025-2018 for the CITY OF HATTIESBURG

**H-07. SEEDING.** The type of seed and rate of application shall be in accordance with the applicable portions of the current Specifications of Advisory Circular(AC) 150/5370-10A , Standards for Specifying Construction of Airports, Part X, as modified by the Field Engineer.

**H-08. AIRPORT OPERATIONS.** The Contractor shall coordinate his work so as to offer the least interference with airport operations and he shall cooperate with the airport management at all times in regards to safety regulations. When the location and nature of the construction process requires that the Contractor's vehicles be routed along or across active runways or taxiways, traffic movements will be coordinated with the airport manager or engineer. See REQUIREMENTS OF CONTRACTOR'S VEHICLES hereinafter. **Portable, lighted, barricades shall be furnished by the Contractor as required.**

Throughout the duration of the contract, **NO** equipment or objects projecting above ground will be permitted any closer than two hundred fifty of the centerline of the runway. Equipment may be parked near the work sites provided the above clearance requirements are maintained.

**H-09. ACCESS.** The Contractor's access route to staging areas and areas where work is to be performed is shown on the construction sequence plan. Maintenance of the route is required and shall include sweeping as required. Existing roads or pavements which are damaged by the Contractor's vehicles during construction shall be repaired at no additional cost to the Owner.

**H-10. SCHEDULING WORK.** The successful bidder shall furnish a proposed work schedule at the Pre-construction Conference. See paragraph H-18 for work phases.

During night operations the Contractor shall provide lighting as required for construction. Separate payment will not be made for lighting expenses.

**H-11. OFFICE SPACE FOR INSPECTOR.** Office space for the inspector will not be required.

**H-12. LABORATORY TESTS.** The Owner will employ the services of a Commercial Laboratory for the purpose of sampling and testing construction materials. The Contractor shall furnish materials for sampling at his expense. Compaction and gradation tests which fail to comply with requirements of the plans and specifications shall be charged to the Contractor. The Engineer shall supervise all testing and tests performed without his knowledge or approval shall be paid for by the Contractor regardless of failing or passing.

**H-13. RECORDING DOCUMENTS.** The Contractor shall file on record at the Forrest County Courthouse, the construction contract and letter of acceptance of the final work. This will be considered as subsidiary obligation.

**H-14. PROTECTION OF CABLES, CONTROLS, NAVAIDS & WEATHER BUREAU.** The Contractor is hereby informed that there are installed on the airport FAA NAVAIDS: including, without limitation, electric cables and controls relating to such NAVAIDS and facilities, and other electric power cables serving other facilities. Such NAVAIDS, and other facilities, and electric cables must be fully protected during the entire construction time. Work under this contract can be accomplished in the vicinity of these facilities and cables only at approved periods of time. Approval is subject to withdrawal at any time because of changes in the weather, emergency conditions on the existing airfield areas, anticipation of emergency conditions, and for any other reason determined by the Engineers acting under the orders and instructions of the airport management and/or the designated FAA representative. Any instructions to this Contractor to clear any given area, at any time, by the Engineers or the airport management (by radio or other means) shall be immediately executed. Construction work will be commenced in the cleared area only when additional instructions are issued by the proper authorities.

The Contractor shall be responsible for the protection of all buried cables and utilities shown on the plans or subsequently located on the job site by the Engineers.

Power and control cables leading to and from any FAA NAVAIDS, Weather Bureau and other facilities, will be marked in the field by the Engineers for the information of the Contractor,

before any work in their general vicinity is started. Thereafter, through the entire time of this construction they shall be protected from any possible damage, including crossing with unauthorized equipment.

The Contractor shall immediately repair, with equivalent material by skilled workmen, any underground cables serving FAA NAVAIDS, Weather Bureau and other airport facilities, which are damaged by his workmen, equipment, or work. Prior approval of the FAA must be obtained for the materials, workmen, time of day or night, method of repairs, and for any temporary or permanent repairs the Contractor proposes to make to any FAA NAVAIDS and facilities damaged by the Contractor. Prior approval of the Engineer must be obtained for the materials, workmen, time of day or night, and for the method of repairs for any temporary or permanent repairs the Contractor proposes to make to any other airport facilities and cables damaged by this Contractor.

#### **H-15. INSURANCE REQUIREMENTS.**

1. The CONTRACTOR shall purchase and maintain such insurance as will protect it from claims set forth below which may arise out of, or result from, the CONTRACTOR'S execution of the WORK, whether such execution be by the CONTRACTOR, any SUBCONTRACTOR, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:
  - a. Claims under workmen's compensation, disability benefit and other similar employee benefit acts;
  - b. Claims for damages because of bodily injury, occupational sickness or disease, or death of employees;
  - c. Claims for damages because of bodily injury, sickness or disease, or death of any person other than employees;
  - d. Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person; and
  - e. Claims for damages because of injury to or destruction of tangible property, including loss of use resulting there from.
2. Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK. These Certificates shall contain a provision that coverage afforded under the policies will not be canceled unless at least fifteen (15) days prior WRITTEN NOTICE has been given to the OWNER.

3. The CONTRACTOR shall procure and maintain, at the CONTRACTOR'S own expense, during the CONTRACT TIME, Liability insurance as hereinafter specified;
  - a. CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting the CONTRACTOR from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the CONTRACT DOCUMENTS, whether such operations be by the CONTRACTOR or by any SUBCONTRACTOR employed by the CONTRACTOR or anyone directly or indirectly employed by the CONTRACTOR or by a SUBCONTRACTOR employed by the CONTRACTOR.

### **Insurance Requirements**

The Contractor shall furnish the following along with Bonds and Contract Documents sent to the City for execution:

Certificates of Insurance in companies doing business in Mississippi and acceptable to the County covering:

Statutory Worker's Compensation Insurance;

Comprehensive Liability Insurance covering all operations and automobiles:

Comprehensive General Liability: \$5,000,000 combined single limit per occurrence for bodily injury, personal injury, and property damage.

Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage.

Certificates of Insurance must be executed in accordance with the following provisions:

Certificates to contain policy number, policy limits and policy expiration dates of all policies issued in accordance with this Contract;

Certificates to contain the location and operations to which the insurance applies;

Certificates to contain Contractor's protective coverage for any Subcontractor's operations;

Certifications to contain Contractor's Contractual Insurance coverage;

Certificates are to be issued to:

Mayor and City Council  
City of Hattiesburg  
200 Forrest Street  
Hattiesburg, MS 39401

The Contractor shall be wholly responsible for securing certificates of insurance coverage as set forth above from all Subcontractors who are engaged in this Work.

The Contractor agrees to carry statutory Workers' Compensation Insurance and to have all Subcontractors likewise carry statutory Workers' Compensation Insurance.

The City, its officials and staff shall be named as additional insureds with right of notice in the policy.

- a. The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S Surety from obligations under the CONTRACT DOCUMENTS to fully complete the PROJECT.
4. The CONTRACTOR shall procure and maintain, at the CONTRACTOR'S own expense during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the WORK is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of the CONTRACTOR'S employees at the site of the PROJECT and in case any WORK is sublet, the CONTRACTOR shall require such SUBCONTRACTOR similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this contract at the site of the PROJECT is not protected under Workmen's Compensation statute, the CONTRACTOR shall provide, and shall cause each SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of its employees not otherwise protected.
5. The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for WORK to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the CONTRACT PRICE totaled in the BID. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until the WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, and the OWNER.



**H-16. WEATHER DATA.** The Contractor shall avail himself of weather bureau data regarding the anticipated temperatures and rainfall.

**H-17. REQUIREMENTS OF CONTRACTOR'S VEHICLES.**

1. For the purpose of this Section, the following definitions apply:
  - a. Vehicle - All conveyance, except aircraft, used on the ground to transport persons, materials, or equipment.
  - b. Aircraft Operation Areas - Those areas which encompass the runways, taxiways, and other areas of the airport utilized for taxiing, take-off, and landing of aircraft, including aprons and parking areas.
  - c. Airfield Service Vehicles - Those vehicles operated by Airport management or the Contractor and routinely used for service, maintenance, and construction on the aircraft movement area.
  - d. Aircraft Support Vehicles - Those vehicles routinely used on the aircraft aprons or parking areas in support of aircraft operations.
  - e. Service and Delivery Vehicles - Those vehicles operating on the air operation areas which pick up and deliver air cargo and airport and airline supplies.
2. No vehicles shall operate within the air operations areas unless it is required for delivery and pick up of Contractor's personnel, materials, air cargo, aircraft servicing, airport maintenance, or in emergency conditions.
3. No vehicle will be given authorization to operate on the air operations area unless it shall be in good mechanical order, with adequate lights, horn, brakes and clear vision from the driver's seat. Trailer and semi-trailers will not be permitted unless they are equipped with reflector lights and proper functional brakes so that when disengaged from the towing vehicle, neither aircraft blast nor wind will cause them to become free rolling. Positive locking couplings will be required for all towed equipment.
4. All vehicle operators are required, by the HATTIESBURG-BOBBY L. CHAIN AIRPORT, to have a valid operator's permit for a motor vehicle before operating a vehicle on the airport property. In addition, all vehicles to be operated on airport property are required to be registered by the State of Mississippi, except those not required by state statutes.
5. The HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT has established guidelines for operating within the air operations area:

- a. General vehicle regulations:
- (1) No person shall operate a motor vehicle on the airport when such vehicle does not possess valid license tags issued by the appropriate authority.
  - (2) The driver of any motor vehicle operated on the airport must at all times comply with a lawful order, signal or directive of an authorized representative of the airport.
  - (3) No motor vehicle shall be operated on the airport if it is so constructed, equipped or loaded as to endanger persons or property.
  - (4) No person shall park a motor vehicle on the airport other than in the area specifically established by the Airport Manager for the parking of the equipment.
  - (5) All motor vehicles, except scooters, shall be equipped with two headlights and one or more red taillights; the headlights to be of sufficient brilliance to assure safety in driving at night, and all lights shall be kept lighted after sunset unless the vehicle is in a designated parking area.
  - (6) All motor vehicles shall be equipped with two reflectors on the rear and two reflectors for each side (front and rear). A reflector will be considered adequate when it is so designed, located and maintained as to be visible for at least five hundred feet when facing an oncoming vehicle with ordinary headlights.
  - (7) Emergency conditions existing on the airport will not mitigate or cancel any existing rule. During such conditions all drivers of every motor vehicle shall make certain that his vehicle does not move in any direction that could interfere with any or all authorized operations necessary for the effective control of the emergency.
  - (8) Any equipment not needed immanently for repairs or construction of runway or taxiways shall not be parked within a safety area. Parking of equipment on the airport during hours when repairs or construction are not in progress shall not be closer than 250 feet from the edge of any active taxiway, runway, ramp, or apron. In any event, such equipment will be marked by flags not less than 3 feet square made of alternating 1 foot squares of white and international orange cloth; and during hours of darkness by obstruction lights when applicable.

- b. Right-of-Way between motor vehicles.
    - (1) Emergency vehicles shall have the right-of-way over all other motor vehicles operating on the airport.
    - (2) On the aprons, fuel tenders shall have the right-of way over other vehicles.
    - (3) On the aprons, motor vehicles operated in support of air carrier operations shall have the right-of-way over administrative and maintenance vehicles except as noted in 4.
    - (4) Maintenance and construction vehicles shall have the right-of-way when operating within routes specifically designated by the Airport Manager in each instance of repairs or construction requiring several movements within a short period of time or during any extensive construction.
  - c. Right-of-way between motor vehicles and aircraft.
    - (1) All vehicles shall relinquish right-of-way to any aircraft moving under its own power.
    - (2) All vehicles shall pass on the pilot's side of an aircraft moving under its own power.
    - (3) When parking adjacent to a runway, all vehicles must park parallel to the runway and at least 200 feet to the outside of the runway lights.
6. The Airport Manager shall have the responsibility of control over the vehicular traffic operating on the air operations area. All vehicles are required to obtain clearance from the Airport Manager before entering any active area of the air operations area. All vehicles must obtain additional clearance from the Airport Manager before crossing an active runway.
7. THE HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT requires that all vehicles to be operated on the air operations area shall display the name of the owner or lessee thereon, by means of a name plate or lettering. Construction contractor's equipment and personnel vehicles will be identified by means of a 3-foot square flag as described in paragraph 5a (9) herein before.

**H-18. WORK PHASES.** Work phases are delineated on the drawings.

## **SECTION I: ADDITIONAL INSURANCE PREMIUM**

**I-1. DESCRIPTION.** The City of Hattiesburg requires that the Contractor adhere to the Insurance Requirements in Paragraph H-15 of the Special Provisions. The required Contractor's insurance coverage may exceed the normal amount of coverage the Contractor carries. The intent of this Special Specification is to provide a bid item for the Contractor's additional cost associated with the requirement that the Owner and Engineer be included as additional insured parties.

**I-2. REQUIREMENTS.** The Contractor will be required to furnish documentation of the Contractor's normal insurance coverage and related costs and documentation of the additional costs for the Contractor to provide the required insurance coverage.

The length of the Contractor's insurance policy may not cover the entire construction period; therefore, the cost may have to be estimated for the project duration.

**I-3. METHOD OF MEASUREMENT.** Measurement of the Item "Insurance" as specified herein will be by the "Lump Sum" as the work progresses.

**I-4. BASIS OF PAYMENT.** The payment will be made at the lump sum bid for insurance upon receipt of documentation of amount paid by the Contractor for required insurance. Any amounts in the lump sum bid item in excess of actual payments for insurance shall be paid at substantial completion of project.

Payment will be made under:

| ITEM NO. | PAY ITEM                     | PAY UNIT |
|----------|------------------------------|----------|
| I-3.2    | Additional Insurance Premium | Lump Sum |

**ENGINEERING AND DESIGN SPECIFICATIONS**

**HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT  
TAXIWAY A EXTENSION PART 2**

**A.I.P Project No. 3-28-0031-0025-2018  
for the  
CITY OF HATTIESBURG**

ARE Consultants, Inc.  
P.O. Box 38252  
Shreveport, LA 71133  
(318) 222-8252

1216 S. Morrison, STE 5  
Hammond, La 70403

## **GENERAL PROVISIONS**

### **SECTION 10: DEFINITION OF TERMS**

Whenever the following terms are used in these specifications, in the contract, in any documents or other instruments pertaining to construction where these specifications govern, the intent and meaning shall be interpreted as follows:

**10-01 AASHTO.** The American Association of State Highway and Transportation Officials, the successor association to AASHO.

**10-02 ACCESS ROAD.** The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public highway.

**10-03 ADVERTISEMENT.** A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.

**10-04 AIP.** The Airport Improvement Program, a grant-in-aid program, administered by the Federal Aviation Administration.

**10-05 AIR OPERATIONS AREA.** For the purpose of these specifications, the term air operations area shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.

**10-06 AIRPORT.** Airport means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

**10-07 ASTM.** The American Society for Testing and Materials.

**10-08 AWARD.** The acceptance, by the owner, of the successful bidder's proposal.

**10-09 BIDDER.** Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.

**10-10 BUILDING AREA.** An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way together with all airport buildings and facilities located thereon.

**10-11 CALENDAR DAY.** Every day shown on the calendar.

**10-12 CHANGE ORDER.** A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for the work affected by such changes. The work, covered by a change order, shall be within the scope of the contract.

**10-13 CONTRACT.** The written agreement covering the work to be performed. The awarded contract shall include, but is not limited to: The Advertisement; The Contract Form; The Proposal; The Performance Bond; The Payment Bond; any required insurance certificates; The Specifications; The Plans, and any addenda issued to bidders.

**10-14 CONTRACT ITEM (PAY ITEM).** A specific unit of work for which a price is provided in the contract.

**10-15 CONTRACT TIME.** The number of calendar days or working days, stated in the proposal, allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar or working days, the contract shall be completed by that date.

**10-16 CONTRACTOR.** The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the contract work.

**10-17 DRAINAGE SYSTEM.** The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.

**10-18 ENGINEER.** The individual, partnership, firm, or corporation duly authorized by the owner (sponsor) to be responsible for engineering supervision of the contract work and acting directly or through an authorized representative.

**10-19 EQUIPMENT.** All machinery, together with the necessary supplies for upkeep and maintenance, and also all tools and apparatus necessary for the proper construction and acceptable completion of the work.

**10-20 EXTRA WORK.** An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Engineer to be necessary to complete the work within the intended scope of the contract as previously modified.

**10-21 FAA.** The Federal Aviation Administration of the U.S. Department of Transportation. When used to designate a person, FAA shall mean the Administrator or his/her duly authorized representative.

**10-22 FEDERAL SPECIFICATIONS.** The Federal Specifications and Standards, and supplements, amendments, and indices thereto are prepared and issued by the General Services Administration of the Federal Government.

**10-23 INSPECTOR.** An authorized representative of the Engineer assigned to make all necessary inspections and/or tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.

**10-24 INTENTION OF TERMS.** Whenever, in these specifications or on the plans, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of the like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer, subject in each case to the final determination of the owner.

Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.

**10-25 LABORATORY.** The official testing laboratories of the owner or such other laboratories as may be designated by the Engineer.

**10-26 LIGHTING.** A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.

**10-27 MAJOR AND MINOR CONTRACT ITEMS.** A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20 percent of the total amount of the award contract. All other items shall be considered minor contract items.

**10-28 MATERIALS.** Any substance specified for use in the construction of the contract work.

**10-29 NOTICE TO PROCEED.** A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.

**10-30 OWNER (SPONSOR).** The term owner shall mean the party of the first part or the contracting agency signatory to the contract. For AIP contracts, the term sponsor shall have the same meaning as the term owner.

**10-31 PAVEMENT.** The combined surface course, base course, and subbase course, if any, considered as a single unit.

**10-32 PAYMENT BOND.** The approved form of security furnished by the Contractor and his/her surety as a guaranty that he will pay in full all bills and accounts for materials and labor used in the construction of the work.

**10-33 PERFORMANCE BOND.** The approved form of security furnished by the Contractor and his/her surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.



**10-34 PLANS.** The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications.

**10-35 PROJECT.** The agreed scope of work for accomplishing specific airport development with respect to a particular airport.

**10-36 PROPOSAL.** The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.

**10-37 PROPOSAL GUARANTY.** The security furnished with a proposal to guarantee that the bidder will enter into a contract if his/her proposal is accepted by the owner.

**10-38 RUNWAY.** The area on the airport prepared for the landing and takeoff of aircraft.

**10-39 SPECIFICATIONS.** A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.

**10-40 STRUCTURES.** Airport facilities such as bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; under drains; electrical ducts, manholes, hand holes, lighting fixtures and bases; transformers; flexible and rigid pavements; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.

**10-41 SUBGRADE.** The soil which forms the pavement foundation.

**10-42 SUPERINTENDENT.** The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the Engineer, and who shall supervise and direct the construction.

**10-43 SUPPLEMENTAL AGREEMENT.** A written agreement between the Contractor and the owner covering: (1) work that would increase or decrease the total amount of the awarded contract, or any major contract item, by more than 25 percent, such increased or decreased work being within the scope of the originally awarded contract; or (2) work that is not within the scope of the originally awarded contract.

**10-44 SURETY.** The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds which are furnished to the owner by the Contractor.

**10-45 TAXIWAY.** For the purpose of this document, the term taxiway means the portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport's runways or aircraft parking areas.

**10-46 WORK.** The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor's performance of all duties and obligations imposed by the contract, plans, and specifications.

**10-47 WORKING DAY.** A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least 6 hours toward completion of the contract. Unless work is suspended for causes beyond the Contractor's control, Saturdays, Sundays and holidays on which the Contractor's forces engage in regular work, requiring the presence of an inspector, will be considered as working days.

**END OF SECTION 10**

## **MODIFICATIONS TO SECTION 20**

The provisions of this specification shall be applicable except as modified as follows:

**20-02** In the second paragraph change all instances of "State Highway Division" to read "Mississippi Department of Transportation and Development - Aviation Division."

## **SECTION 20: REQUIREMENTS AND CONDITIONS**

### **20-01 ADVERTISEMENT (Notice to Bidders). See Section A.**

**20-02 PREQUALIFICATION OF BIDDERS.** Each bidder shall furnish the owner satisfactory evidence of his/her competency to perform the proposed work. Such evidence of competency, unless otherwise specified, shall consist of statements covering the bidder's past experience on similar work, a list of equipment that would be available for the work, and a list of key personnel that would be available. In addition, each bidder shall furnish the owner satisfactory evidence of his/her financial responsibility. Such evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the Contractor's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the bidder shall further certify whether his/her financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's financial responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect his/her (bidder's) true financial condition at the time such qualified statement or report is submitted to the owner.

**20-03 CONTENTS OF PROPOSAL FORMS.** The owner shall furnish bidders with proposal forms. All papers bound with or attached to the proposal forms are necessary parts and must not be detached.

The plans specifications, and other documents designated in the proposal form shall be considered a part of the proposal whether attached or not.

**20-04 ISSUANCE OF PROPOSAL FORMS.** The owner reserves the right to refuse to issue a proposal form to a prospective bidder should such bidder be in default for any of the following reasons:

- a. Failure to comply with any pre-qualification regulations of the owner, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.
- b. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force (with the owner) at the time the owner issues the proposal to a prospective bidder.
- c. Contractor default under previous contracts with the owner.
- d. Unsatisfactory work on previous contracts with the owner.

**20-05 INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES.** An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only

as a basis for comparison of proposals and the award of the contract. The owner does not expressly or by implication agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the quantities may be increased or decreased as hereinafter provided in the subsection titled **ALTERATION OF WORK AND QUANTITIES** of Section 40 without in any way invalidating the unit bid prices.

**20-06 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE.** The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, and contract forms. He shall satisfy himself as to the character, quality, and quantities of work to be performed, materials to be furnished, and as to the requirements of the proposed contract. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the proposed contract, plans, and specifications.

Boring logs and other records of subsurface investigations and tests are available for inspection of bidders. It is understood and agreed that such subsurface information, whether included in the plans, specifications, or otherwise made available to the bidder, was obtained and is intended for the owner's design and estimating purposes only. Such information has been made available for the convenience of all bidders. It is further understood and agreed that each bidder is solely responsible for all assumptions, deductions, or conclusions which he may make or obtain from his/her examination of the boring logs and other records of subsurface investigations and tests that are furnished by the owner.

**20-07 PREPARATION OF PROPOSAL.** The bidder shall submit his/her proposal on the forms furnished by the owner. All blank spaces in the proposal forms must be correctly filled in where indicated for each and every item for which a quantity is given. The bidder shall state the price (written in ink or typed) both in words and numerals for which he proposes to do each pay item furnished in the proposal. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.

The bidder shall sign his/her proposal correctly and in ink. If the proposal is made by an individual, his/her name and post office address must be shown. If made by a partnership, the name and post office address of each member of the partnership must be shown. If made by a corporation, the person signing the proposal shall give the name of the state under the laws of which the corporation was chartered and the name, titles, and business address of the president, secretary, and the treasurer. Anyone signing a proposal as an agent shall file evidence of his/her authority to do so and that the signature is binding upon the firm or corporation.

**20-08 IRREGULAR PROPOSALS.** Proposals shall be considered irregular for the following reasons:

- a. If the proposal is on a form other than that furnished by the owner, or if the owner's form is altered, or if any part of the proposal form is detached.
- b. If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind which make the proposal incomplete, indefinite, or otherwise ambiguous.
- c. If the proposal does not contain a unit price for each pay item listed in the proposal, except in the case of authorized alternate pay items, for which the bidder is not required to furnish a unit price.
- d. If the proposal contains unit prices that are obviously unbalanced.
- e. If the proposal is not accompanied by the proposal guaranty specified by the owner.

The owner reserves the right to reject any irregular proposal and the right to waive technicalities if such waiver is in the best interest of the owner and conforms to local laws and ordinances pertaining to the letting of construction contracts.

**20-09 BID GUARANTEE.** Each separate proposal shall be accompanied by a certified check, or other specified acceptable collateral, in the amount specified in the proposal form. Such check, or collateral, shall be made payable to the owner.

**20-10 DELIVERY OF PROPOSAL.** Each proposal submitted shall be placed in a sealed envelope plainly marked with the project number, location of airport, and name and business address of the bidder on the outside. When sent by mail, preferably registered, the sealed proposal, marked as indicated above, should be enclosed in an additional envelope. No proposal will be considered unless received at the place specified in the advertisement before the time specified for opening all bids. Proposals received after the bid opening time shall be returned to the bidder unopened.

**20-11 WITHDRAWAL OR REVISION OF PROPOSALS.** A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is received by the owner in writing or by telegram before the time specified for opening bids. Revised proposals must be received at the place specified in the advertisement before the time specified for opening all bids.

**20-12 PUBLIC OPENING OF PROPOSALS.** Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.

**20-13 DISQUALIFICATION OF BIDDERS.** A bidder shall be considered disqualified for any of the following reasons:

- a.** Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.
- b.** Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the owner until any such participating bidder has been reinstated by the owner as a qualified bidder.
- c.** If the bidder is considered to be in default for any reason specified in the subsection titled **ISSUANCE OF PROPOSAL FORMS** of this section.

**END OF SECTION 20**

## **SECTION 30: AWARD AND EXECUTION OF CONTRACT**

**30-01 CONSIDERATION OF PROPOSALS.** After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in words and unit bid prices written in numbers, the unit price written in words shall govern.

Until the award of a contract is made, the owner reserves the right to reject a bidder's proposal for any of the following reasons:

- a. If the proposal is irregular as specified in the subsection titled **IRREGULAR PROPOSALS** of Section 20.
- b. If the bidder is disqualified for any of the reasons specified in the subsection titled **DISQUALIFICATION OF BIDDERS** of Section 20.

In addition, until the award of a contract is made, the owner reserves the right to reject any or all proposals, waive technicalities, if such waiver is in the best interest of the owner and is in conformance with applicable state and local laws or regulations pertaining to the letting of construction contracts; advertise for new proposals; or proceed with the work otherwise. All such actions shall promote the owner's best interests.

**30-02 AWARD OF CONTRACT.** The award of a contract, if it is to be awarded, shall be made within 30 calendar days of the date specified for publicly opening proposals, unless otherwise specified herein.

Award of the contract shall be made by the owner to the lowest, qualified bidder whose proposal conforms to the cited requirements of the owner.

**30-03 CANCELLATION OF AWARD.** The owner reserves the right to cancel the award without liability to the bidder, except return of proposal guaranty, at any time before a contract has been fully executed by all parties and is approved by the owner in accordance with the subsection titled **APPROVAL OF CONTRACT** of this section.

**30-04 RETURN OF PROPOSAL GUARANTY.** All proposal guaranties, except those of the two lowest bidders, will be returned immediately after the owner has made a comparison of bids as hereinbefore specified in the subsection titled **CONSIDERATION OF PROPOSALS** of this section. Proposal guaranties of the two lowest bidders will be retained by the owner until such time as an award is made, at which time, the unsuccessful bidder's proposal guaranty will be returned. The successful bidder's proposal guaranty will be returned as soon as the owner receives the contracts bonds as specified in the subsection titled **REQUIREMENTS OF CONTRACT BONDS** of this section.

**30-05 REQUIREMENTS OF CONTRACT BONDS.** At the time of the execution of the contract, the successful bidder shall furnish the owner a surety bond or bonds which have been



fully executed by the bidder and the surety guaranteeing the performance of the work and the payment of all legal debts that may be incurred by reason of the Contractor's performance of the work. The surety and the form of the bond or bonds shall be acceptable to the owner. Unless otherwise specified in this subsection, the surety bond or bonds shall be in a sum equal to the full amount of the contract.

**30-06 EXECUTION OF CONTRACT.** The successful bidder shall sign (execute) the necessary agreements for entering into the contract and return such signed contract to the owner, along with the fully executed surety bond or bonds specified in the subsection titled **REQUIREMENTS OF CONTRACT BONDS** of this section, within 15 calendar days from the date mailed or otherwise delivered to the successful bidder. If the contract is mailed, special handling is recommended.

**30-07 APPROVAL OF CONTRACT.** Upon receipt of the contract and contract bond or bonds that have been executed by the successful bidder, the owner shall complete the execution of the contract in accordance with local laws or ordinances, and return the fully executed contract to the Contractor. Delivery of the fully executed contract to the Contractor shall constitute the owner's approval to be bound by the successful bidder's proposal and the terms of the contract.

**30-08 FAILURE TO EXECUTE CONTRACT.** Failure of the successful bidder to execute the contract and furnish an acceptable surety bond or bonds within the 15 calendar day period specified in the subsection titled **REQUIREMENTS OF CONTRACT BONDS** of this section shall be just cause for cancellation of the award and forfeiture of the proposal guaranty, not as a penalty, but as liquidation of damages to the owner.

**END OF SECTION 30**

## **SECTION 40: SCOPE OF WORK**

**40-01 INTENT OF CONTRACT.** The intent of the contract is to provide for construction and completion, in every detail, of the work described. It is further intended that the Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the plans, specifications, and terms of the contract.

**40-02 ALTERATION OF WORK AND QUANTITIES.** The owner reserves and shall have the right to make such alterations in the work as may be necessary or desirable to complete the work originally intended in an acceptable manner. Unless otherwise specified herein, the Engineer shall be and is hereby authorized to make such alterations in the work as may increase or decrease the originally awarded contract quantities, provided that the aggregate of such alterations does not change the total contract cost or the total cost of any major contract item by more than 25 percent (total cost being based on the unit prices and estimated quantities in the awarded contract). Alterations which do not exceed the 25 percent limitation shall not invalidate the contract nor release the surety, and the Contractor agrees to accept payment for such alterations as if the altered work had been a part of the original contract. These alterations which are for work within the general scope of the contract shall be covered by "Change Orders" issued by the Engineer. Change orders for altered work shall include extensions of contract time where, in the Engineer's opinion, such extensions are commensurate with the amount and difficulty of added work.

Should the aggregate amount of altered work exceed the 25 percent limitation here-in-before specified, such excess altered work shall be covered by supplemental agreement. If the owner and the Contractor are unable to agree on a unit adjustment for any contract item that requires a supplemental agreement, the owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.

**40-03 OMITTED ITEMS.** The Engineer may, in the owner's best interest, omit from the work any contract item, except major contract items. Major contract items may be omitted by a supplemental agreement. Such omission of contract items shall not invalidate any other contract provision or requirement.

Should a contract item be omitted or otherwise ordered to be non-performed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Payment for work performed shall be in accordance with the subsection titled **PAYMENT FOR OMITTED ITEMS** of Section 90.

**40-04 EXTRA WORK.** Should acceptable completion of the contract require the Contractor to perform an item of work for which no basis of payment has been provided in the original contract or previously issued change orders or supplemental agreements, the same shall be called Extra Work. Extra work that is within the general scope of the contract shall be covered by written change order. Change orders for such extra work shall contain agreed unit prices for performing the change order work in accordance with the requirements specified in the order, and shall contain any adjustment to the contract time that, in the Engineer's opinion, is necessary for completion of such extra work.

When determined by the Engineer to be in the owner's best interest, he may order the Contractor to proceed with extra work by force account as provided in the subsection titled **PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK** of Section 90.

Extra work that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original contract shall be covered by a Supplemental Agreement as here-in-before defined in the subsection titled **SUPPLEMENTAL AGREEMENT** of Section 10.

Any claim for payment of extra work that is not covered by written agreement (change order or supplemental agreement) shall be rejected by the owner.

**40-05 MAINTENANCE OF TRAFFIC.** It is the explicit intention of the contract that the safety of aircraft, as well as the Contractor's equipment and personnel, is the most important consideration. It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of aircraft in the air operations areas of the airport with respect to his/her own operations and the operations of all his/her subcontractors as specified in the subsection titled **LIMITATION OF OPERATIONS** of Section 80. It is further understood and agreed that the Contractor shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the airport as specified in the subsection titled **CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS** in Section 70.

With respect to his/her own operations and the operations of all his/her subcontractors, the Contractor shall provide marking, lighting, and other acceptable means of identifying: personnel; equipment; vehicles; storage areas; and any work area or condition that may be hazardous to the operation of aircraft, fire-rescue equipment, or maintenance vehicles at the airport.

When the contract requires the maintenance of vehicular traffic on an existing road, street, or highway during the Contractor's performance of work that is otherwise provided for in the contract, plans, and specifications, the Contractor shall keep such road, street, or highway open to all traffic and shall provide such maintenance as may be required to accommodate traffic. The Contractor shall furnish erect, and maintain barricades, warning signs, flagmen, and other traffic control devices in reasonable conformity with the manual of Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office), unless otherwise specified herein. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways. Unless otherwise specified herein, the Contractor will not be required to furnish snow removal for such existing road, street, or highway.

The Contractor shall make his/her own estimate of all labor, materials, equipment, and incidentals necessary for providing the maintenance of aircraft and vehicular traffic as specified in this subsection.

The cost of maintaining the aircraft and vehicular traffic specified in this subsection shall not be measured or paid for directly, but shall be included in the various contract items.

**40-06 REMOVAL OF EXISTING STRUCTURES.** All existing structures encountered within the established lines, grades, or grading sections shall be removed by the Contractor, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various contract items.

Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the plans, the Engineer shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the Engineer in accordance with the provisions of the contract.

Except as provided in the subsection titled **RIGHTS IN AND USE OF MATERIALS FOUND IN THE WORK** of this section, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or grading sections established for completion of the work) shall be utilized in the work as otherwise provided for in the contract and shall remain the property of the owner when so utilized in the work.

**40-07 RIGHTS IN AND USE OF MATERIALS FOUND IN THE WORK.** Should the Contractor encounter any material such as (but not restricted to) sand, stone, gravel, slag, or concrete slabs within the established lines, grades, or grading sections, the use of which is intended by the terms of the contract to be either embankment or waste, he may at his/her option either:

- a. Use such material in another contract item, providing such use is approved by the Engineer and is in conformance with the contract specifications applicable to such use; or,
- b. Remove such material from the site, upon written approval of the Engineer; or
- c. Use such material for his/her own temporary construction on site; or,
- d. Use such material as intended by the terms of the contract.

Should the Contractor wish to exercise option a., b., or c., he shall request the Engineer's approval in advance of such use.

Should the Engineer approve the Contractor's request to exercise option a., b., or c., the Contractor shall be paid for the excavation or removal of such material at the applicable contract price. The Contractor shall replace, at his/her own expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in constructing embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the

contract work. The Contractor shall not be charged for his/her use of such material so used in the work or removed from the site.

Should the Engineer approve the Contractor's exercise of option a., the Contractor shall be paid, at the applicable contract price, for furnishing and installing such material in accordance with requirements of the contract item in which the material is used.

It is understood and agreed that the Contractor shall make no claim for delays by reason of his/her exercise of option a., b., or c.

The Contractor shall not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades, or grading sections established for the work, except where such excavation or removal is provided for in the contract, plans, or specifications.

**40-09 FINAL CLEANING UP.** Upon completion of the work and before acceptance and final payment will be made, the Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. He shall cut all brush and woods within the limits indicated and shall leave the site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the Contractor has obtained the written permission of such property owner.

#### **END OF SECTION 40**

## **SECTION 50: CONTROL OF WORK**

**50-01 AUTHORITY OF THE ENGINEER.** The Engineer shall decide any and all questions which may arise as to the quality and acceptability of materials furnished, work performed, and as to the manner of performance and rate of progress of the work. He shall decide all questions which may arise as to the interpretation of the specifications or plans relating to the work, the fulfillment of the contract on the part of the Contractor, and the rights of different Contractors on the project. The Engineer shall determine the amount and quality of the several kinds of work performed and materials furnished which are to be paid for the under contract.

**50-02 CONFORMITY WITH PLANS AND SPECIFICATIONS.** All work and all materials furnished shall be in reasonably close conformity with the lines, grades, grading sections, cross sections, dimensions, material requirements, and testing requirements that are specified (including specified tolerances) in the contract, plans or specifications.

If the Engineer finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications but that the portion of the work affected will, in his/her opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the owner, he will advise the owner of his/her determination that the affected work be accepted and remain in place. In this event, the Engineer will document his/her determination and recommend to the owner a basis of acceptance which will provide for an adjustment in the contract price for the affected portion of the work. The Engineer's determination and recommended contract price adjustments will be based on good engineering judgment and such tests or retests of the affected work as are, in his/her opinion, needed. Changes in the contract price shall be covered by contract modifications (change order or supplemental agreement) as applicable.

If the Engineer finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications and have resulted in an unacceptable finished product, the affected work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor in accordance with the Engineer's written orders.

For the purpose of this subsection, the term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the contract, plans, and specifications. The term shall not be construed as waiving the Engineer's right to insist on strict compliance with the requirements of the contract, plans, and specifications during the Contractor's prosecution of the work, when, in the Engineer's opinion, such compliance is essential to provide an acceptable finished portion of the work.

For the purpose of this subsection, the term "reasonably close conformity" is also intended to provide the Engineer with the authority to use good engineering judgment in his/her determinations as to acceptance of work that is not in strict conformity but will provide a finished product equal to or better than that intended by the requirements of the contract, plans and specifications.

**50-03 COORDINATION OF CONTRACT, PLANS, AND SPECIFICATIONS.** The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans, cited standards for materials or testing, and cited FAA advisory circulars; contract general provisions shall govern over plans, cited standards for materials or testing, and cited FAA advisory circulars; plans shall govern over cited standards for materials or testing and cited FAA advisory circulars.

The Contractor shall not take advantage of any apparent error or omission on the plans or specifications. In the event the Contractor discovers any apparent error or discrepancy, he shall immediately call upon the Engineer for his/her interpretation and decision, and such decision shall be final.

**50-04 COOPERATION OF CONTRACTOR.** The Contractor will be supplied with two copies each of the plans and specifications. He shall have available on the work at all times one copy each of the plans and specifications. Additional copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

The Contractor shall give constant attention to the work to facilitate the progress thereof, and he shall cooperate with the Engineer and his/her inspectors and with other contractors in every way possible. The Engineer shall allocate the work and designate the sequence of construction in case of controversy between contractors. The Contractor shall have a competent superintendent on the work at all times who is fully authorized as his/her agent on the work. The superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the Engineer or his/her authorized representative.

**50-05 COOPERATION BETWEEN CONTRACTORS.** The owner reserves the right to contract for and perform other or additional work on or near the work covered by this contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct his/her work so as not to interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with his/her contract and shall protect and save harmless the owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced by him because of the presence and operations of other Contractors working within the limits of the same project.

The Contractor shall arrange his/her work and shall place and dispose of the materials being used so as not to interfere with the operations of the other Contractors within the limits of the same project. He shall join his/her work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

**50-06 CONSTRUCTION LAYOUT AND STAKES.** The Engineer shall establish horizontal and vertical control only. The Contractor must establish all layout required for the construction of the work. Such stakes and markings as the Engineer may set for either his/her own or the Contractor's guidance shall be preserved by the Contractor. In case of negligence on the part of the Contractor, or his/her employees, resulting in the destruction of such stakes or markings, an amount equal to the cost of replacing the same may be deducted from subsequent estimates due the Contractor at the discretion of the Engineer.

**50-07 AUTOMATICALLY CONTROLLED EQUIPMENT.** Whenever batching or mixing plant equipment is required to be operated automatically under the contract and a breakdown or malfunction of the automatic controls occurs, the equipment may be operated manually or by other methods for a period 48 hours following the breakdown or malfunction, provided this method of operations will product results which conform to all other requirements of the contract.

**50-08 AUTHORITY AND DUTIES OF INSPECTORS.** Inspectors employed by the owner shall be authorized to inspect all work done and all material furnished. Such inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. Inspectors are not authorized to revoke, alter, or waive any provision of the contract. Inspectors are not authorized to issue instructions contrary to the plans and specifications or to act as foreman for the Contractor.

Inspectors employed by the owner are authorized to notify the Contractor or his/her representatives of any failure of the work or materials to conform to the requirements of the contract, plans, or specifications and to reject such nonconforming materials in question until such issues can be referred to the Engineer for his/her decision.

**50-09 INSPECTION OF THE WORK.** All materials and each part or detail of the work shall be subject to inspection by the Engineer. The Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

If the Engineer requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at the Contractor's expense.

Any work done or materials used without supervision or inspection by an authorized representative of the owner may be ordered removed and replaced at the Contractor's expense unless the owner's representative failed to inspect after having been given reasonable notice in writing that the work was to be performed.



Should the contract work include relocation, adjustment, or any other modification to existing facilities, not the property of the (contract) owner, authorized representatives of the owners of such facilities shall have the right to inspect such work. Such inspection shall in no sense make any facility owner a party to the contract, and shall in no way interfere with the rights of the parties to this contract.

**50-10 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK.** All work which does not form to the requirements of the contract, plans, and specifications will be considered unacceptable, unless otherwise determined acceptable by the Engineer as provided in the subsection titled **CONFORMITY WITH PLANS AND SPECIFICATIONS** of this section.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of the subsection titled **CONTRACTOR'S RESPONSIBILITY FOR WORK** of Section 70.

Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the plans or as given, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this subsection, the Engineer will have authority to cause unacceptable work to be remedied or removed and replaced and unauthorized work to be removed and to deduct the costs (incurred by the owner) from any monies due or to become due the Contractor.

**50-11 LOAD RESTRICTIONS.** The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the Contractor of liability for damage which may result from the moving of material or equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The Contractor shall be responsible for all damage done by his/her hauling equipment and shall correct such damage at his/her own expense.

**50-12 MAINTENANCE DURING CONSTRUCTION.** The Contractor shall maintain the work during construction and until the work is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a course or sub-grade previously constructed, the Contractor shall maintain the previous course or sub-grade during all construction operations.

All costs of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various contract items, and the Contractor will not be paid an additional amount for such work.

**50-13 FAILURE TO MAINTAIN THE WORK.** Should the Contractor at any time fail to maintain the work as provided in the subsection titled **MAINTENANCE DURING CONSTRUCTION** of this section, the Engineer shall immediately notify the Contractor of such noncompliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

Should the Contractor fail to respond to the Engineer's notification, the Engineer may suspend any work necessary for the owner to correct such unsatisfactory maintenance condition, depending on the exigency that exists. Any maintenance cost incurred by the owner, shall be deducted from monies due or to become due the Contractor.

**50-14 PARTIAL ACCEPTANCE.** If at any time during the prosecution of the project the Contractor substantially completes a usable unit or portion of the work, the occupancy of which will benefit the owner, he may request the Engineer to make final inspection of that unit. If the Engineer finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, he may accept it as being completed, and the Contractor may be relieved of further responsibility for that unit. Such partial acceptance and beneficial occupancy by the owner shall not void or alter any provision of the contract.

**50-15 FINAL ACCEPTANCE.** Upon due notice from the Contractor of presumptive completion of the entire project, the Engineer and owner will make an inspection. If all construction provided for and contemplated by the contract is found to be completed in accordance with the contract, plans, and specifications, such inspection shall constitute the final inspection. The Engineer shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

**50-16 CLAIMS FOR ADJUSTMENT AND DISPUTES.** If for any reason the Contractor deems that additional compensation is due him for work or materials not clearly provided for in the contract, plans, or specifications or previously authorized as extra work, he shall notify the

Engineer in writing of his/her intention to claim such additional compensation before he begins the work on which he bases the claim. If such notification is not given or the Engineer is not afforded proper opportunity by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor and the fact that the Engineer has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the Contractor shall, within 10 calendar days, submit his/her written claim to the Engineer who will present it to the owner for consideration in accordance with local laws or ordinances.

Nothing in this subsection shall be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

**END OF SECTION 50**

## **SECTION 60: CONTROL OF MATERIALS**

**60-01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS.** The materials used on the work shall conform to the requirements of the contract, plans, and specifications. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or reprocessed).

In order to expedite the inspection and testing of materials, the Contractor shall furnish complete statements to the Engineer as to the origin, composition, and manufacture of all materials to be used in the work. Such statements shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

At the Engineer's option, materials may be approved at the source of supply before delivery is stated. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources.

**60-02 SAMPLES, TESTS, AND CITED SPECIFICATIONS.** All materials used in the work shall be inspected, tested, and approved by the Engineer before incorporation in the work. Any work in which untested materials are used without approval or written permission of the Engineer shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the Engineer, shall be removed at the Contractor's expense. Unless otherwise designated, tests in accordance with the cited standard methods of AASHTO or ASTM which are current on the date of advertisement for bids will be made by and at the expense of the owner. Samples will be taken by a qualified representative of the owner. All materials being used are subject to inspection, test, or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractor's representative at his/her request.

**60-03 CERTIFICATION OF COMPLIANCE.** The Engineer may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's certificates of compliance stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not.

The form and distribution of certificates of compliance shall be as approved by the Engineer.

When a material or assembly is specified by "brand name or equal" and the Contractor elects to furnish the specified "brand name," the Contractor shall be required to furnish the manufacturer's certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

- a. Conformance to the specified performance, testing, quality or dimensional requirements; and,
- b. Suitability of the material or assembly for the use intended in the contract work.

Should the Contractor propose to furnish an “or equal” material or assembly, he shall furnish the manufacturer's certificates of compliance as hereinbefore described for the specified brand name material or assembly. However, the Engineer shall be the sole judge as to whether the proposed “or equal” is suitable for use in the work.

The Engineer reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

**60-04 PLANT INSPECTION.** The Engineer or his/her authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for his/her acceptance of the material or assembly.

Should the Engineer conduct plant inspections, the following conditions shall exist:

- a. The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom he has contracted for materials.
- b. The Engineer shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished.
- c. If required by the Engineer, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Office or working space should be conveniently located with respect to the plant.

It is understood and agreed that the owner shall have the right to retest any material which has been tested and approved at the source of supply after it has been delivered to the site. The Engineer shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans, or specifications.

**60-05 ENGINEER'S FIELD OFFICE AND LABORATORY.** When specified and provided for as a contract item, the Contractor shall furnish a building for the exclusive use of the Engineer as a field office and field testing laboratory. The building shall be furnished and maintained by the Contractor as specified herein and shall become property of the Contractor when the contract work is completed.

**60-06 STORAGE OF MATERIALS.** Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located so as to

facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the Engineer. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the plans, the storage of materials and the location of the Contractor's plant and parked equipment or vehicles shall be as directed by the Engineer. Private property shall not be used for storage purposes without written permission of the owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the Engineer a copy of the property owner's permission.

All storage sites on private or airport property shall be restored to their original condition by the Contractor at his/her entire expense, except as otherwise agreed to (in writing) by the owner or lessee of the property.

**60-07 UNACCEPTABLE MATERIALS.** Any material or assembly that does not conform to the requirements of the contract, plans, or specifications shall be considered unacceptable and shall be rejected. The Contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the Engineer.

No rejected material or assembly, the defects of which have been corrected by the Contractor, shall not be returned to the site of the work until such time as the Engineer has approved its use in the work.

**60-08 OWNER FURNISHED MATERIALS.** The Contractor shall furnish all materials required to complete the work, except those specified herein (if any) to be furnished by the owner. Owner-furnished materials shall be made available to the Contractor at the location specified herein.

All costs of handling, transportation from the specified location to the site of work, storage, and installing owner-furnished materials shall be included in the unit price bid for the contract item in which such owner-furnished material is used.

After any owner-furnished material has been delivered to the location specified, the Contractor shall be responsible for any demurrage, damage, loss, or other deficiencies which may occur during the Contractor's handling, storage, or use of such owner-furnished material. The owner will deduct from any monies due or to become due the Contractor any cost incurred by the owner in making good such loss due to the Contractor's handling, storage, or use of owner-furnished materials.

## **END OF SECTION 60**

## **SECTION 70: LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC**

**70-1 LAWS TO BE OBSERVED.** The Contractor shall keep fully informed of all Federal and state laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. He shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the owner and all his/her officers, agents, or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his/her employees.

**70-02 PERMITS, LICENSES, AND TAXES.** The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work.

**70-03 PATENTED DEVICES, MATERIALS, AND PROCESSES.** If the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the surety shall indemnify and save harmless the owner, any third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the owner for any costs, expenses, and damages which it may be obliged to pay by reason of an infringement, at any time during the prosecution or after the completion of the work.

**70-04 RESTORATION OF SURFACES DISTURBED BY OTHERS.** The owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction, or maintenance has been coordinated with the owner, such authorized work (by others) is indicated as follows:

N/A

Except as listed above, the Contractor shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the Engineer.

Should the owner of public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the Contractor shall cooperate with such owners by arranging and performing the work in this contract so as to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the Engineer, the Contractor shall make all necessary repairs to the work which are due to such authorized work by others, unless otherwise provided for in the contract, plans, or specifications. It is understood and agreed that the

Contractor shall not be entitled to make any claim for damages due to such authorized work by others or for any delay to the work resulting from such authorized work.

**70-05 FEDERAL AID PARTICIPATION.** Not Applicable.

**70-06 SANITARY, HEALTH, AND SAFETY PROVISIONS.** The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his/her employees as may be necessary to comply with the requirements of the state and local Board of Health, or of other bodies or tribunals having jurisdiction.

Attention is directed to Federal, state, and local laws, rules and regulations concerning construction safety and health standards. The Contractor shall not require any worker to work in surroundings or under conditions are unsanitary, hazardous, or dangerous to his/her health or safety.

**70-07 PUBLIC CONVENIENCE AND SAFETY.** The Contractor shall control his/her operations and those of his/her subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The Contractor shall maintain the free and unobstructed movement of aircraft and vehicular traffic with respect to his/her own operations and those of his/her subcontractors and all suppliers in accordance with the subsection titled **MAINTENANCE OF TRAFFIC** of Section 40 hereinbefore specified and shall limit such operations for the convenience and safety of the traveling public as specified in the subsection titled **LIMITATION OF OPERATIONS** of Section 80 hereinafter.

**70-08 BARRICADES, WARNING SIGNS, AND HAZARD MARKINGS.** The Contractor shall furnish, erect, and maintain all barricades, warning signs, and markings for hazards necessary to protect the public and the work. When used during periods of darkness, such barricades, warning signs, and hazard markings shall be suitably illuminated.

For vehicular and pedestrian traffic, the Contractor shall furnish, erect, and maintain barricades, warning signs, lights and other traffic control devices in reasonable conformity with the Manual of Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office).

When the work requires closing an air operations area of the airport or portion of such area, the Contractor shall furnish, erect, and maintain temporary markings and associated lighting conforming to the requirements of AC 150/5340-1, Marking of Paved Areas on Airports.

The Contractor shall furnish, erect, and maintain markings and associated lighting of open trenches, excavations, temporary stock piles, and his/her parked construction equipment that may be hazardous to the operation of emergency fire-rescue or maintenance vehicles on the airport in reasonable conformance to AC 150/5370-2, Operational Safety on Airports During Construction Activity.



The Contractor shall identify each motorized vehicle or piece of construction equipment in reasonable conformance to AC 150/5370-2.

The Contractor shall furnish and erect all barricades, warning signs, and markings for hazards prior to commencing work which requires such erection and shall maintain the barricades, warning signs, and markings for hazards until their dismantling is directed by the Engineer.

Open-flame type lights shall not be permitted within the air operations areas of the airport.

**70-09 USE OF EXPLOSIVES.** When the use of explosives is necessary for the prosecution of the work, the Contractor shall exercise the utmost care not to endanger life or property, including new work. The Contractor shall be responsible for all damage resulting from the use of explosives.

All explosives shall be stored in a secure manner in compliance with all laws and ordinances, and all such storage places shall be clearly marked. Where no local laws or ordinances apply, storage shall be provided satisfactory to the Engineer and, in general, not closer than 1,000 feet (300 m) from the work or from any building, road, or other place of human occupancy.

The Contractor shall notify each property owner and public utility company having structures or facilities in proximity to the site of the work of his/her intention to use explosives. Such notice shall be given sufficiently in advance to enable them to take such steps as they may deem necessary to protect their property from injury.

The use of electrical blasting caps shall not be permitted on or within 1,000 feet (300 m) of the airport property.

**70-10 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.** The Contractor shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damage all land monuments and property markers until the Engineer has witnessed or otherwise referenced their location and shall not move them until directed.

The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his/her manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until the project shall have been completed and accepted.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution thereof by the Contractor, he shall restore, at his/her own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, or otherwise restoring as may be directed, or he shall make good such damage or injury in an acceptable manner.

**70-11 RESPONSIBILITY FOR DAMAGE CLAIMS.** The Contractor shall indemnify and save harmless the Engineer and the owner and their officers, and employees from all suits actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act," or any other law, ordinance, order, or decree. Money due the Contractor under and by virtue of his/her contract as may be considered necessary by the owner for such purpose may be retained for the use of the owner or, in case no money is due, his/her surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the owner, except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he is adequately protected by public liability and property damage insurance.

**70-12 THIRD PARTY BENEFICIARY CLAUSE.** It is specifically agreed between the parties executing the contract that it is not intended by any of the provisions of any part of the contract to create the public or any member thereof a third party beneficiary or to authorize anyone not a party to the contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the contract.

**70-13 OPENING SECTIONS OF THE WORK TO TRAFFIC.** Should it be necessary for the Contractor to complete portions of the contract work for the beneficial occupancy of the owner prior to completion of the entire contract, such "phasing" of the work shall be specified herein and indicated on the plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified. The Contractor shall make his/her own estimate of the difficulties involved in arranging his/her work to permit such beneficial occupancy by the owner as described below:

Open runway or taxiway rehabilitation after 30 calendar days from start of project.

Upon completion of any portion of the work listed above, such portion shall be accepted by the owner in accordance with the subsection titled **PARTIAL ACCEPTANCE** of Section 50.

No portion of the work may be opened by the Contractor for public use until ordered by the Engineer in writing. Should it become necessary to open a portion of the work to public traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the Engineer, such portion of the work is in an acceptable condition to support the intended traffic. Temporary or intermittent openings are considered to be inherent in the work and shall not constitute either acceptance of the portion of the work so opened or a waiver of any provision of the contract. Any damage to the portion of the work so opened that is not attributable to traffic which is permitted by the owner shall be repaired by the Contractor at his/her expense.

The Contractor shall make his/her own estimate of the inherent difficulties involved in completing the work under the conditions herein described and shall not claim any added compensation by reason of delay or increased cost due to opening a portion of the contract work.

**70-14 CONTRACTOR'S RESPONSIBILITY FOR WORK.** Until the Engineer's final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with the subsection titled **PARTIAL ACCEPTANCE** of Section 50, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy or of government authorities.

If the work is suspended for any cause whatever, the Contractor shall be responsible for the work and shall take such precautions necessary to prevent damage to the work. The Contractor shall provide for normal drainage and shall erect necessary temporary structures, signs, or other facilities at his/her expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established planting, seedings, and soddings furnished under his/her contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

**70-15 CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS.** As provided in the subsection titled RESTORATION OF SURFACES DISTURBED BY OTHERS of this section, the Contractor shall cooperate with the owner of any public or private utility service, FAA or NOAA, or a utility service of another government agency that may be authorized by the owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control his/her operations to prevent the unscheduled interruption of such utility services and facilities.

To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans and the owners are indicated as follows:

Willmut Gas Company  
315 South Main Street; P.O. Box 1649  
Hattiesburg, MS 39403  
(601) 544-6001

It is understood and agreed that the owner does not guarantee the accuracy or the completeness of the location information relating to existing utility services, facilities, or structures that may be

shown on the plans or encountered in the work. Any inaccuracy or omission in such information shall not relieve the Contractor of his/her responsibility to protect such existing features from damage or unscheduled interruption of service.

It is further understood and agreed that the Contractor shall, upon execution of the contract, notify the owners of all utility services or other facilities of his/her plan of operations. Such notification shall be in writing addressed to THE PERSON TO CONTACT as provided hereinbefore in this subsection and the subsection titled **RESTORATION OF SURFACES DISTURBED BY OTHERS** of this section. A copy of each notification shall be given to the Engineer.

In addition to the general written notification hereinbefore provided, it shall be the responsibility of the Contractor to keep such individual owners advised of changes in his/her plan of operations that would affect such owners.

Prior to commencing the work in the general vicinity of an existing utility service or facility, the Contractor shall again notify each such owner of his/her plan of operation. If, in the Contractor's opinion, the owner's assistance is needed to locate the utility service or facility or the presence of a representative of the owner is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious means to reach the utility owner's PERSON TO CONTACT no later than two normal business days prior to the Contractor's commencement of operations in such general vicinity. The Contractor shall furnish a written summary of the notification to the Engineer.

The Contractor's failure to give the two day's notice herein above provided shall be cause for the Engineer to suspend the Contractor's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use excavation methods acceptable to the Engineer within 3 feet of such outside limits at such points as may be required to ensure protection from damage due to the Contractor's operations.

Should the Contractor damage or interrupt the operation of a utility service or facility by accident or otherwise, he shall immediately notify the proper authority and the Engineer and shall take all reasonable measures to prevent further damage or interruption of service. The Contractor, in such events, shall cooperate with the utility service or facility owner and the Engineer continuously until such damage has been repaired and service restored to the satisfaction of the utility or facility owner.

The Contractor shall bear all costs of damage and restoration of service to any utility service or facility due to his/her operations whether or not due to negligence or accident. The contract owner reserves the right to deduct such costs from any monies due or which may become due the Contractor, or his/her surety.

**70-16 FURNISHING RIGHTS-OF-WAY.** The owner will be responsible for furnishing all rights-of-way upon which the work is to be constructed in advance of the Contractor's operations.

**70-17 PERSONAL LIABILITY OF PUBLIC OFFICIALS.** In carrying out any of the contract provisions or in exercising any power or authority granted to him by this contract, there shall be no liability upon the Engineer, his/her authorized representatives, or any officials of the owner either personally or as an official of the owner. It is understood that in such matters they act solely as agents and representatives of the owner.

**70-18 NO WAIVER OF LEGAL RIGHTS.** Upon completion of the work, the owner will expeditiously make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or estop the owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the owner be precluded or estopped from recovering from the Contractor or his/her surety, or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill his/her obligations under the contract. A waiver on the part of the owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the contract, shall be liable to the owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the owner's rights under any warranty or guaranty.

**70-19 ENVIRONMENTAL PROTECTION.** The Contractor shall comply with all Federal, state, and local laws and regulations controlling pollution of the environment. He shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

**70-20 ARCHAEOLOGICAL AND HISTORICAL FINDINGS.** Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

Should the Contractor encounter, during his/her operations, any building, part of a building, structure, or object which is incongruous with its surroundings, he shall immediately cease operations in that location and notify the Engineer. The Engineer will immediately investigate the Contractor's finding and will direct the Contractor to either resume his/her operations or to suspend operations as directed.

Should the Engineer order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract modification (change order or supplemental agreement) as provided in the subsection titled **EXTRA WORK** of Section 40 and the subsection titled **PAYMENT FOR EXTRA WORK AND FORCE ACCOUNT WORK** of

Section 90. If appropriate, the contract modification shall include an extension of contract time in accordance with the subsection titled **DETERMINATION AND EXTENSION OF CONTRACT TIME** of Section 80.

**END OF SECTION 70**

## **SECTION 80: PROSECUTION AND PROGRESS**

**80-01 SUBLETTING OF CONTRACT.** The owner will not recognize any subcontractor on the work. The Contractor shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Engineer.

Should the Contractor elect to assign his/her contract, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the owner, and shall be consummated only on the written approval of the owner. In case of approval, the Contractor shall file copies of all subcontracts with the Engineer.

**80-02 NOTICE TO PROCEED.** The notice to proceed shall state the date on which it is expected the Contractor will begin the construction and from which date contract time will be charged. The Contractor shall begin the work to be performed under the contract within 10 days of the date set by the Engineer in the written notice to proceed, but in any event, the Contractor shall notify the Engineer at least 24 hours in advance of the time actual construction operations will begin.

**80-03 PROSECUTION AND PROGRESS.** Unless otherwise specified, the Contractor shall submit his/her progress schedule for the Engineer's approval within 10 days after the effective date of the notice to proceed. The Contractor's progress schedule, when approved by the Engineer, may be used to establish major construction operations and to check on the progress of the work. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the Engineer's request, submit a revised schedule for completion of the work within the contract time and modify his/her operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the prosecution of the work be discontinued for any reason, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations.

For AIP contracts, the Contractor shall not commence any actual construction prior to the date on which the notice to proceed is issued by the owner.

**80-04 LIMITATION OF OPERATIONS.** The Contractor shall control his/her operations and the operations of his/her subcontractors and all suppliers so as to provide for the free and unobstructed movement of aircraft in the AIR OPERATIONS AREAS of the airport.

When the work requires the Contractor to conduct his/her operations within an AIR OPERATIONS AREA of the airport, the work shall be coordinated with airport management (through the Engineer) at least 48 hours prior to commencement of such work. The Contractor shall not close an AIR OPERATIONS AREA until so authorized by the Engineer and until the

necessary temporary marking and associated lighting is in place as provided in the subsection titled **BARRICADES, WARNING SIGNS, AND HAZARD MARKINGS** of Section 70.

When the contract work requires the Contractor to work within an AIR OPERATIONS AREA of the airport on an intermittent basis (intermittent opening and closing of the AIR OPERATIONS AREA), the Contractor shall maintain constant communications as hereinafter specified; immediately obey all instructions to vacate the AIR OPERATIONS AREA; immediately obey all instructions to resume work in such AIR OPERATIONS AREA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the AIR OPERATIONS AREA until the satisfactory conditions are provided. The following AIR OPERATIONS AREA (AOA) cannot be closed to operating aircraft to permit the Contractor's operations on a continuous basis and will therefore be closed to aircraft operations intermittently as follows:

N/A

**80-05 CHARACTER OF WORKERS, METHODS, AND EQUIPMENT.** The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans, and specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

All equipment which is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall be such that no injury to previously completed work, adjacent property, or existing airport facilities will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans, and specifications.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer. If the Contractor desires to use a method or type of equipment other than specified in the contract, he may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the Engineer may direct. No change will be made in basis of



payment for the contract items involved nor in contract time as a result of authorizing a change in methods or equipment under this subsection.

**80-06 TEMPORARY SUSPENSION OF THE WORK.** The Engineer shall have the authority to suspend the work wholly, or in part, for such period or periods as he may deem necessary, due to unsuitable weather, or such other conditions as are considered unfavorable for the prosecution of the work, or for such time as is necessary due to the failure on the part of the Contractor to carry out orders given or perform any or all provisions of the contract.

In the event that the Contractor is ordered by the Engineer, in writing, to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the Engineer's order to suspend work to the effective date of the Engineer's order to resume the work. Claims for such compensation shall be filed with the Engineer within the time period stated in the Engineer's order to resume work. The Contractor shall submit with his/her claim information substantiating the amount shown on the claim. The Engineer will forward the Contractor's claim to the owner for consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather, for suspensions made at the request of the Contractor, or for any other delay provided for in the contract, plans, or specifications.

If it should become necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. He shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for traffic on, to, or from the airport.

**80-07 DETERMINATION AND EXTENSION OF CONTRACT TIME.** The number of calendar or working days allowed for completion of the work shall be stated in the proposal and contract and shall be known as the CONTRACT TIME.

Should the contract time require extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

CONTRACT TIME based on CALENDAR DAYS shall be calculated weekly by the Engineer. The Engineer will furnish the Contractor a copy of his/her weekly statement of the number of working days charged against the contract time during the week and the number of working days currently specified for completion of the contract (the original contract time plus the number of working days, if any, that have been included in approved CHANGE ORDERS or SUPPLEMENTAL AGREEMENTS covering EXTRA WORK).

The Engineer shall base his/her weekly statement of contract time charged on the following considerations:

- (1) No time shall be charged for days on which the Contractor is unable to proceed with the principal item of work under construction at the time for at least 6 hours with the normal work force employed on such principal item. Should the normal work force be on a double-shift, 12 hours shall be used. Should the normal work force be on a triple-shift, 18 hours shall apply. Conditions beyond the Contractor's control such as strikes, lockouts, unusual delays in transportation, temporary suspension of the principal item of work under construction or temporary suspension of the entire work which have been ordered by the Engineer for reasons not the fault of the Contractor, shall not be charged against the contract time.
- (2) The Engineer will not make charges against the contract time prior to the effective date of the notice to proceed.
- (3) The Engineer will begin charges against the contract time on the first working day after the effective date of the notice to proceed.
- (4) The Engineer will not make charges against the contract time after the date of final acceptance as defined in the subsection titled **FINAL ACCEPTANCE** of Section 50.
- (5) The Contractor will be allowed 1 week in which to file a written protest setting forth his/her objections to the Engineer's weekly statement. If no objection is filed within such specified time, the weekly statement shall be considered as acceptable to the Contractor.

The contract time (stated in the proposal) is based on the originally estimated quantities as described in the subsection titled **INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES** of Section 20. Should the satisfactory completion of the contract require performance of work in greater quantities than those estimated in the proposal, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in contract time shall not consider either the cost of work or the extension of contract time that has been covered by change order or supplemental agreement and shall be made at the time of final payment.

b. **CONTRACT TIME** based on **CALENDAR DAYS** shall consist of the number of calendar days stated in the contract counting from the effective date of the notice to proceed and including all Saturdays, Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of the Engineer's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

c. When the contract time is a specified completion date, it shall be the date on which all contract work shall be substantially completed.

If the Contractor finds it impossible for reasons beyond his/her control to complete the work within the contract time as specified, or as extended in accordance with the provisions of this subsection, he may, at any time prior to the expiration of the contract time as extended, make a written request to the Engineer for an extension of time setting forth the reasons which he believes will justify the granting of his/her request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Engineer finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, he may extend the time for completion in such amount as the conditions justify. The extended time for completion shall then be in full force and effect, the same as though it were the original time for completion.

**80-08 FAILURE TO COMPLETE ON TIME.** For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in the subsection titled **DETERMINATION AND EXTENSION OF CONTRACT TIME** of this Section) the sum specified in the contract and proposal as liquidated damages will be deducted from any money due or to become due the Contractor or his/her surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages that will be incurred by the owner should the Contractor fail to complete the work in the time provided in his/her contract.

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the owner of any of its rights under the contract.

**80-09 DEFAULT AND TERMINATION OF CONTRACT.** The Contractor shall be considered in default of his/her contract and such default will be considered as cause for the owner to terminate the contract for any of the following reasons if the Contractor:

- a. Fails to begin the work under the contract within the time specified in the Notice to Proceed.
- b. Fails to perform the work or fails to provide sufficient workers, equipment or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- d. Discontinues the prosecution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or

- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- g. Allows any final judgment to stand against him unsatisfied for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the Engineer consider the Contractor in default of the contract for any reason hereinbefore, he shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the owner's intentions to terminate the contract.

If the Contractor or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the owner will, upon written notification from the Engineer of the facts of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the prosecution of the work out of the hands of the Contractor. The owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said contract according to the terms and provisions thereof, or use such other methods as in the opinion of the Engineer will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the owner the amount of such excess.

**80-10 TERMINATION FOR NATIONAL EMERGENCIES.** The owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct result of an Executive Order of the President with respect to the prosecution of war or in the interest of national defense.

When the contract, or any portion thereof, is terminated before completion of all items of work in the contract, payment will be made for the actual number of units or items of work completed at the contract price or as mutually agreed for items of work partially completed or not started. **No claims or loss of anticipated profits shall be considered.**

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the contract) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the Contractor.

Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the Engineer.

Termination of the contract or a portion thereof shall neither relieve the Contractor of his/her responsibilities for the completed work nor shall it relieve his/her surety of its obligation for and concerning any just claim arising out of the work performed.

**END OF SECTION 80**

## **SECTION 90: MEASUREMENT AND PAYMENT**

**90-01 MEASUREMENT OF QUANTITIES.** All work completed under the contract will be measured by the Engineer, or his/her authorized representatives, using United States Customary Units of Measurement or the International System of Units.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the Engineer.

Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.

Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, under drains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

In computing volumes of excavation the average end area method or other acceptable methods will be used.

The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inches.

The term "ton" will mean the short ton consisting of 2,000 pounds (907 kilograms) avoirdupois. All materials which are measured or proportioned by weights shall be weighed on accurate, approved scales by competent, qualified personnel at locations designed by the Engineer. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material be paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the Engineer directs, and each truck shall bear a plainly legible identification mark.

Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable to the Engineer, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.

When requested by the Contractor and approved by the Engineer in writing, material specified to be measured by the cubic yard may be weighed, and such weights will be converted to cubic yards for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

Bituminous materials will be measured by the gallon (liter) or ton (kilogram). When measured by volume, such volumes will be measured at 60 F (15 C) or will be corrected to the volume at 60 F (15 C) using ASTM D 1250 for asphalts or ASTM D 633 for tars.

Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when bituminous material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work.

When bituminous materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, may be used for computing quantities.

Cement will be measured by the ton (kilogram) or hundredweight (kilogram). Timber will be measured by the thousand feet board measure (M.F.B.M.) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.

The term lump sum when used as an item of payment will mean complete payment for the work described in the contract.

Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered by the Engineer in connection with force account work will be measured as agreed in the change order or supplemental agreement authorizing such force account work as provided in the subsection titled **PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK** of this section.

When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gage, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales.

Scales shall be accurate within one-half percent of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the inspector before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed one-tenth of

1 percent of the nominal rated capacity of the scale, but not less than 1 pound (454 grams). The use of spring balances will not be permitted.

Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the inspector can safely and conveniently view them.

Scale installations shall have available ten standard 50-pound (2.3 kilogram) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.

Scales must be tested for accuracy and serviced before use at a new site. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.

Scales "overweighing" (indicating more than correct weight) will not be permitted to operate, and all materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of one-half of 1 percent.

In the event inspection reveals the scales have been "under weighing" (indicating less than correct weight), they shall be adjusted, and no additional payment to the Contractor will be allowed for materials previously weighed and recorded.

All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.

When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the Engineer. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

**90-02 SCOPE OF PAYMENT.** The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof, subject to the provisions of the subsection titled **NO WAIVER OF LEGAL RIGHTS** of Section 70.

When the "basis of payment" subsection of a technical specification requires that the contract price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans, or specifications.

**90-03 COMPENSATION FOR ALTERED QUANTITIES.** When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so



far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in the subsection titled **ALTERATION OF WORK AND QUANTITIES** of Section 40 will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor which results directly from such alterations or indirectly from his/her unbalanced allocation of overhead and profit among the contract items, or from any other cause.

**90-04 PAYMENT FOR OMITTED ITEMS.** As specified in the subsection titled **OMITTED ITEMS** of Section 40, the Engineer shall have the right to omit from the work (order nonperformance) any contract item, except major contract items, in the best interest of the owner.

Should the Engineer omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the Engineer's order to omit or non-perform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the Engineer's order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the owner.

In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the Engineer's order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs.

**90-05 PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK.** Extra work, performed in accordance with the subsection titled **EXTRA WORK** of Section 40, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work. When the change order or supplemental agreement authorizing the extra work requires that it be done by force account, such force account shall be measured and paid for based on expended labor, equipment, and materials plus a negotiated and agreed upon allowance for overhead and profit.

- a. **Miscellaneous.** No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.
- b. **Comparison of Record.** The Contractor and the Engineer shall compare records of the cost of force account work at the end of each day. Agreement shall be indicated by signature of the Contractor and the Engineer or their duly authorized representatives.
- c. **Statement.** No payment will be made for work performed on a force account

basis until the Contractor has furnished the Engineer with duplicate itemized statements of the cost of such force account work detailed as follows:

- (1) Name, classification, date, daily hours, total hours, rate and extension for each laborer and foreman..
- (2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
- (3) Quantities of materials, prices, and extensions.
- (4) Transportation of materials.
- (5) Cost of property damage, liability and workman's compensation insurance premiums, unemployment insurance contributions, and social security tax.

Statements shall be accompanied and supported by a receipted invoice for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices the Contractor shall furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

**90-06 PARTIAL PAYMENTS.** Partial payments will be made at least once each month as the work progresses. Said payments will be based upon estimates prepared by the Engineer of the value of the work performed and materials complete in place in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with the subsection titled **PAYMENT FOR MATERIALS ON HAND** of this section.

No partial payment will be made when the amount due the Contractor since the last estimate amounts to less than five hundred dollars.

From the total of the amount determined to be payable on a partial payment, 10 percent of such total amount will be deducted and retained by the owner until the final payment is made, except as may be provided (at the Contractor's option) in the subsection titled **PAYMENT OF WITHHELD FUNDS** of this section. The balance (90 percent) of the amount payable, less all previous payments, shall be certified for payment. Should the Contractor exercise his/her option, as provided in the subsection titled **PAYMENT OF WITHHELD FUNDS** of this section, no such 10 percent retainage shall be deducted.

When not less than 95 percent of the work has been completed the Engineer may, at his/her discretion and with the consent of the surety, prepare an estimate from which will be retained an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the Engineer to be a part of the final quantity for the item of work in question.

No partial payment shall bind the owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in the subsection titled **ACCEPTANCE AND FINAL PAYMENT** of this section.

**90-07 PAYMENT FOR MATERIALS ON HAND.** Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans, and specifications and are delivered to acceptable sites on the airport property or at other sites in the vicinity that are acceptable to the owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

- a. The material has been stored or stockpiled in a manner acceptable to the Engineer at or on an approved site.
- b. The Contractor has furnished the Engineer with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
- c. The Contractor has furnished the Engineer with satisfactory evidence that the material and transportation costs have been paid.
- d. The Contractor has furnished the owner legal title (free of liens or encumbrances of any kind) to the material so stored or stockpiled.
- e. The Contractor has furnished the owner evidence that the material so stored or stockpiled is insured against loss by damage to or disappearance of such materials at anytime prior to use in the work.

It is understood and agreed that the transfer of title and the owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of his/her responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans, and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials. The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this subsection.

**90-08 PAYMENT OF WITHHELD FUNDS.** At the Contractor's option, he/she may request that the owner accept (in lieu of the 10 percent retainage on partial payments described in the subsection titled **PARTIAL PAYMENTS** of this section) the Contractor's deposits in escrow under the following conditions.

- a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the owner.
- b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the owner and having a value not less than the 10 percent retainage that would otherwise be withheld from partial payment.
- c. The Contractor shall enter into an escrow agreement satisfactory to the owner.
- d. The Contractor shall obtain the written consent of the surety to such agreement.

**90-09 ACCEPTANCE AND FINAL PAYMENT.** When the contract work has been accepted in accordance with the requirements of the subsection titled **FINAL ACCEPTANCE** of Section 50, the Engineer will prepare the final estimate of the items of work actually performed. The Contractor shall approve the Engineer's final estimate or advise the Engineer of his/her objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the Engineer shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the Engineer's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the Engineer's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the owner as a claim in accordance with the subsection titled **CLAIMS FOR ADJUSTMENT AND DISPUTES** of Section 50.

After the Contractor has approved, or approved under protest, the Engineer's final estimate, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the Contractor has filed a claim for additional compensation under the provisions of the subsection titled **CLAIMS FOR ADJUSTMENTS AND DISPUTES** of Section 50 or under the provisions of this subsection, such claims will be considered by the owner in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental final estimate.

#### **END OF SECTION 90**

## **SECTION 100: CONTRACTOR QUALITY CONTROL PROGRAM**

**100-01 GENERAL.** When the specifications require a Contractor Quality Control Program, the Contractor shall establish, provide, and maintain an effective Quality Control Program that details the methods and procedures that will be taken to assure that all materials and completed construction conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors. Although guidelines are established and certain minimum requirements are specified herein and elsewhere in the contract technical specifications, the Contractor shall assume full responsibility for accomplishing the stated purpose.

The intent of this section is to enable the Contractor to establish a necessary level of control that will:

- a. Adequately provide for the production of acceptable quality materials.
- b. Provide sufficient information to assure both the Contractor and the Engineer that the specification requirements can be met.
- c. Allow the Contractor as much latitude as possible to develop his or her own standard of control.

The Contractor shall be prepared to discuss and present, at the preconstruction conference, his/her understanding of the quality control requirements. The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the Quality Control Program has been reviewed by the Engineer. No partial payment will be made for materials subject to specific quality control requirements until the Quality Control Program has been reviewed.

The quality control requirements contained in this section and elsewhere in the contract technical specifications are in addition to and separate from the acceptance testing requirements. Acceptance testing requirements are the responsibility of the Engineer.

### **100-02 DESCRIPTION OF PROGRAM.**

a. General Description. The Contractor shall establish a Quality Control Program to perform inspection and testing of all items of work required by the technical specifications, including those performed by subcontractors. This Quality Control Program shall ensure conformance to applicable specifications and plans with respect to materials, workmanship, construction, finish, and functional performance. The Quality Control Program shall be effective for control of all construction work performed under this Contract and shall specifically include surveillance and tests required by the technical specifications, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of quality control.

b. Quality Control Program. The Contractor shall describe the Quality Control Program in a written document which shall be reviewed by the Engineer prior to the start of any production, construction, or off-site fabrication. The written Quality Control Program shall be submitted to the Engineer for review at least 14 calendar days before the pre-construction conference.

The Quality Control Program shall be organized to address, as a minimum, the following items:

- a. Quality control organization;
- b. Project progress schedule;
- c. Submittals schedule;
- d. Inspection requirements;
- e. Quality control testing plan;
- f. Documentation of quality control activities; and
- g. Requirements for corrective action when quality control and/or acceptance criteria are not met.

The Contractor is encouraged to add any additional elements to the Quality Control Program that he/she deems necessary to adequately control all production and/or construction processes required by this contract.

**100-03 QUALITY CONTROL ORGANIZATION.** The Contractor's Quality Control Program shall be implemented by the establishment of a separate quality control organization. An organizational chart shall be developed to show all quality control personnel and how these personnel integrate with other management/production and construction functions and personnel.

The organizational chart shall identify all quality control staff by name and function, and shall indicate the total staff required to implement all elements of the Quality Control Program, including inspection and testing for each item of work. If necessary, different technicians can be utilized for specific inspection and testing functions for different items of work. If an outside organization or independent testing laboratory is used for implementation of all or part of the Quality Control Program, the personnel assigned shall be subject to the qualification requirements of paragraph 100-03a and 100-03b. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

The quality control organization shall consist of the following minimum personnel:

- a. Program Administrator. The Program Administrator shall be a full-time employee of the Contractor, or a consultant engaged by the Contractor. The Program Administrator shall have a

minimum of 5 years of experience in airport and/or highway construction and shall have had prior quality control experience on a project of comparable size and scope as the contract.

Additional qualifications for the Program Administrator shall include at least 1 of the following requirements:

(1) Professional engineer with 1 year of airport paving experience acceptable to the Engineer.

(2) Engineer-in-training with 2 years of airport paving experience acceptable to the Engineer.

(3) An individual with 3 years of highway and/or airport paving experience acceptable to the Engineer, with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

(4) Construction materials technician certified at Level III by the National Institute for Certification in Engineering Technologies (NICET).

(5) Highway materials technician certified at Level III by NICET.

(6) Highway construction technician certified at Level III by NICET.

(7) A NICET certified engineering technician in Civil Engineering Technology with 5 years of highway and/or airport paving experience acceptable to the Engineer.

The Program Administrator shall have full authority to institute any and all actions necessary for the successful implementation of the Quality Control Program to ensure compliance with the contract plans and technical specifications. The Program Administrator shall report directly to a responsible officer of the construction firm. The Program Administrator may supervise the Quality Control Program on more than one project provided that person can be at the job site within 2 hours after being notified of a problem.

b. Quality Control Technicians. A sufficient number of quality control technicians necessary to adequately implement the Quality Control Program shall be provided. These personnel shall be either engineers, engineering technicians, or experienced craftsman with qualifications in the appropriate field equivalent to NICET Level II or higher construction materials technician or highway construction technician and shall have a minimum of 2 years of experience in their area of expertise.

The quality control technicians shall report directly to the Program Administrator and shall perform the following functions:

(1) Inspection of all materials, construction, plant, and equipment for conformance to the technical specifications, and as required by Section 100-06.

- (2) Performance of all quality control tests as required by the technical specifications and Section 100-07.

Certification at an equivalent level, by a state or nationally recognized organization will be acceptable in lieu of NICET certification.

c. **Staffing Levels.** The Contractor shall provide sufficient qualified quality control personnel to monitor each work activity at all times. Where material is being produced in a plant for incorporation into the work, separate plant and field technicians shall be provided at each plant and field placement location. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity. The Quality Control Program shall state where different technicians will be required for different work elements.

**100-04 PROJECT PROGRESS SCHEDULE.** The Contractor shall submit a coordinated construction schedule for all work activities. The schedule shall be prepared as a network diagram in Critical Path Method (CPM), PERT, or other format, or as otherwise specified in the contract. As a minimum, it shall provide information on the sequence of work activities, milestone dates, and activity duration.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a twice monthly basis, or as otherwise specified in the contract. Submission of the work schedule shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

**100-05 SUBMITTALS SCHEDULE.** The Contractor shall submit a detailed listing of all submittals (e.g., mix designs, material certifications) and shop drawings required by the technical specifications. The listing can be developed in a spreadsheet format and shall include:

- a. Specification item number;
- b. Item description;
- c. Description of submittal;
- d. Specification paragraph requiring submittal; and
- e. Scheduled date of submittal.

**100-06 INSPECTION REQUIREMENTS.** Quality control inspection functions shall be organized to provide inspections for all definable features of work, as detailed below. All inspections shall be documented by the Contractor as specified by Section 100-07.

Inspections shall be performed daily to ensure continuing compliance with contract requirements until completion of the particular feature of work. These shall include the following minimum requirements:



a. During plant operation for material production, quality control test results and periodic inspections shall be utilized to ensure the quality of aggregates and other mix components, and to adjust and control mix proportioning to meet the approved mix design and other requirements of the technical specifications. All equipment utilized in proportioning and mixing shall be inspected to ensure its proper operating condition. The Quality Control Program shall detail how these and other quality control functions will be accomplished and utilized.

b. During field operations, quality control test results and periodic inspections shall be utilized to ensure the quality of all materials and workmanship. All equipment utilized in placing, finishing, and compacting shall be inspected to ensure its proper operating condition and to ensure that all such operations are in conformance to the technical specifications and are within the plan dimensions, lines, grades, and tolerances specified. The Program shall document how these and other quality control functions will be accomplished and utilized.

**100-07 QUALITY CONTROL TESTING PLAN.** As a part of the overall Quality Control Program, the Contractor shall implement a quality control testing plan, as required by the technical specifications. The testing plan shall include the minimum tests and test frequencies required by each technical specification Item, as well as any additional quality control tests that the Contractor deems necessary to adequately control production and/or construction processes.

The testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

- a. Specification item number (e.g., P-401);
- b. Item description (e.g., Plant Mix Bituminous Pavements);
- c. Test type (e.g., gradation, grade, asphalt content);
- d. Test standard (e.g., ASTM or AASHTO test number, as applicable);
- e. Test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated);
- f. Responsibility (e.g., plant technician); and
- g. Control requirements (e.g., target, permissible deviations).

The testing plan shall contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D 3665. The Engineer shall be provided the opportunity to witness quality control sampling and testing.

All quality control test results shall be documented by the Contractor as required by Section 100-08.

**100-08 DOCUMENTATION.** The Contractor shall maintain current quality control records of all inspections and tests performed. These records shall include factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.

These records must cover both conforming and defective or deficient features, and must include a statement that all supplies and materials incorporated in the work are in full compliance with the terms of the contract. Legible copies of these records shall be furnished to the Engineer daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the Contractor's Program Administrator.

Specific Contractor quality control records required for the contract shall include, but are not necessarily limited to, the following records:

a. Daily Inspection Reports. Each Contractor quality control technician shall maintain a daily log of all inspections performed for both Contractor and subcontractor operations on a form acceptable to the Engineer. These technician's daily reports shall provide factual evidence that continuous quality control inspections have been performed and shall, as a minimum, include the following:

- (1) Technical specification item number and description;
- (2) Compliance with approved submittals;
- (3) Proper storage of materials and equipment;
- (4) Proper operation of all equipment;
- (5) Adherence to plans and technical specifications;
- (6) Review of quality control tests; and
- (7) Safety inspection.

The daily inspection reports shall identify inspections conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

The daily inspection reports shall be signed by the responsible quality control technician and the Program Administrator. The Engineer shall be provided at least one copy of each daily inspection report on the work day following the day of record.

b. Daily Test Reports. The Contractor shall be responsible for establishing a system which will record all quality control test results. Daily test reports shall document the following information:

- (1) Technical specification item number and description;

- (2) Test designation;
- (3) Location;
- (4) Date of test;
- (5) Control requirements;
- (6) Test results;
- (7) Causes for rejection;
- (8) Recommended remedial actions; and
- (9) Retests.

Test results from each day's work period shall be submitted to the Engineer prior to the start of the next day's work period. When required by the technical specifications, the Contractor shall maintain statistical quality control charts. The daily test reports shall be signed by the responsible quality control technician and the Program Administrator.

**100-09 CORRECTIVE ACTION REQUIREMENTS.** The Quality Control Program shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action shall include both general requirements for operation of the Quality Control Program as a whole, and for individual items of work contained in the technical specifications.

The Quality Control Program shall detail how the results of quality control inspections and tests will be used for determining the need for corrective action and shall contain clear sets of rules to gauge when a process is out of control and the type of correction to be taken to regain process control.

When applicable or required by the technical specifications, the Contractor shall establish and utilize statistical quality control charts for individual quality control tests. The requirements for corrective action shall be linked to the control charts.

**100-10 SURVEILLANCE BY THE ENGINEER.** All items of material and equipment shall be subject to surveillance by the Engineer at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate quality control system in conformance with the requirements detailed herein and the applicable technical specifications and plans. In addition, all items of materials, equipment and work in place shall be subject to surveillance by the Engineer at the site for the same purpose.

Surveillance by the Engineer does not relieve the Contractor of performing quality control inspections of either on-site or off-site Contractor's or subcontractor's work.

#### **100-11 NONCOMPLIANCE.**

a. The Engineer will notify the Contractor of any noncompliance with any of the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Any notice, when delivered by the Engineer or his/her authorized representative to the Contractor or his/her authorized representative at the site of the work, shall be considered sufficient notice.

b. In cases where quality control activities do not comply with either the Contractor's Quality Control Program or the contract provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, as determined by the Engineer, the Engineer may:

- (1) Order the Contractor to replace ineffective or unqualified quality control personnel or subcontractors.
- (2) Order the Contractor to stop operations until appropriate corrective actions is taken.

**END OF SECTION 100**

DESIGN SPECIFICATIONS

for

**HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT  
TAXIWAY A EXTENSION PART 2**

**A.I.P Project No. 3-28-0031-0025-2018  
for the  
CITY OF HATTIESBURG**

## **ITEM P-151: CLEARING AND DEMOLITION**

### **DESCRIPTION**

**151-1.1** This item shall consist of all clearing and demolition, including the disposal of materials, for all areas within the limits designated on the plans or as required by the Engineer. There is no separate payment for pavement and lighting removal or for milling.

Clearing and grubbing shall consist of clearing the surface of the ground of the designated areas of all heavy growth of grass or weeds, fences, structures, debris, and rubbish of any nature, natural obstructions or such material which in the opinion of the Engineer is unsuitable for the foundation of strips, pavements, or other required structures, including roots, matted roots, foundations, and the disposal from the project of all spoil materials resulting from clearing and grubbing by burning or otherwise.

### **CONSTRUCTION METHODS**

**151-2.1 GENERAL.** The areas denoted on the plans to be cleared and grubbed shall be staked on the ground by the Engineer. The clearing and grubbing shall be done at a satisfactory distance in advance of the grading operations.

All spoil materials removed by clearing or by clearing and grubbing shall be disposed of by burning, when permitted by local laws, or by removal to approved disposal areas. When burning of material is permitted, it shall be burned under the constant care of competent watchmen so that the surrounding vegetation and other adjacent property will not be jeopardized. Burning shall be done in accordance with all applicable laws, ordinances, and regulations. Before starting any burning operations, the Contractor shall notify the agency having jurisdiction.

As far as practicable, waste concrete and masonry shall be placed on slopes of embankments or channels. When embankments are constructed of such material, this material shall be placed in accordance with requirements for formation of embankments. Any broken concrete or masonry which cannot be used in construction, and all other materials not considered suitable for use elsewhere, shall be disposed of by the Contractor. In no case shall any discarded materials be left in windrows or piles adjacent to or within the airport limits. The manner and location of disposal of materials shall be subject to the approval of the Engineer and shall not create an unsightly or objectionable view. When the Contractor is required to locate a disposal area outside the airport property limits at his/her own expense, he shall obtain and file with the Engineer, permission in writing from the property owner for the use of private property for this purpose.

If the plans or the specifications require the saving of merchantable timber, the Contractor shall trim the limbs and tops from designated trees, saw them into suitable lengths, and make the material available for removal by other agencies.

Any blasting necessary shall be done at the Contractor's responsibility, and the utmost care shall be taken not to endanger life or property.

The removal of existing structure and utilities required to permit orderly progress of work shall be accomplished by local agencies, unless otherwise shown on the plans. Whenever a telephone or telegraph pole, pipeline, conduit, sewer, roadway, or other utility is encountered and must be removed or relocated the Contractor shall advise the Engineer who will notify the proper local authority or owner and attempt to secure prompt action.

**151-2.2 CLEARING AND GRUBBING.** In areas designated to be cleared and grubbed, all stumps, roots, buried logs, brush, grass, and other unsatisfactory materials shall be removed, except where embankments exceeding 3-1/2 feet in depth are to be made outside of paved areas. In cases where such depth of embankments is to be made, all unsatisfactory materials shall be removed, but sound trees, stumps, and brush can be cut off within 6 inches above the ground and allowed to remain. Tap roots and other projections over 1-1/2 inches in diameter shall be grubbed out to a depth of at least 18 inches below the finished subgrade or slope elevation.

Any buildings and miscellaneous structures that are shown on the plans to be removed shall be demolished or removed, and all materials therefrom shall be disposed of either by burning or otherwise removed from the site. The remaining or existing foundations, wells, cesspools, and all like structures shall be destroyed by breaking out or breaking down the materials of which the foundations, wells, cesspools, etc., are built to a depth at least 2 feet below the existing surrounding ground. Any broken concrete, blocks, or other objectionable material which cannot be used in backfill shall be removed and disposed of. The holes or openings shall be backfilled with acceptable material and properly compacted.

All holes remaining after the grubbing operation in embankment areas shall have the sides broken down to flatten out the slopes, and shall be filled with acceptable material, moistened and properly compacted in layers to the density required in Item P-152. The same construction procedure shall be applied to all holes remaining after grubbing in excavation areas where the depth of holes exceeds the depth of the proposed excavation.

### **METHOD OF MEASUREMENT**

**151-3.1** The quantities of clearing or clearing and demolition will not be separately measured.

### **BASIS OF PAYMENT**

**151-4.1 Lump Sum** - Payment shall be made as a lump sum payment.

END ITEM P-151

## ITEM P-152: EXCAVATION AND EMBANKMENT

### DESCRIPTION

**152-1.1** This item covers excavation, disposal, placement, and compaction of all materials within the limits of the work required to construct safety areas, runways, taxiways, aprons, and intermediate as well as other areas for drainage, building construction, parking, or other purposes in accordance with these specifications and in conformity to the dimensions and typical section(s) shown on the plans.

**152-1.2 CLASSIFICATION.** All material excavated shall be classified as defined below:

**a. Unclassified Excavation.** Unclassified excavation shall consist of the excavation and disposal of all material, regardless of its nature, which is not otherwise classified and paid for under the following items.

**b. Rock Excavation.** Rock excavation shall include all solid rock in ledges, in bedded deposits, in unstratified masses, and conglomerate deposits which are so firmly cemented they cannot be removed without blasting or using rippers. All boulders containing a volume of more than cubic yard will be classified as rock excavation.

**c. Muck Excavation.** Muck excavation shall consist of the removal and disposal of deposits or mixtures of soils and organic matter not suitable for foundation material. Muck shall include materials which will decay or produce subsidence in the embankment. It may be made up of decaying stumps, roots, logs, humus, or other material not satisfactory for incorporation in the embankment.

**d. Drainage Excavation.** Drainage excavation shall consist of all excavation made for the primary purpose of drainage and includes drainage ditches, such as intercepting, inlet or outlet; temporary levee construction; or any other type as shown on the plans.

**e. Borrow Excavation.** Borrow excavation shall consist of approved material required for the construction of embankment or for other portions of the work in excess of the quantity of usable material available from required excavations. Borrow material shall be obtained from areas outside the limits of the airport property. The material will be A-4 or better with a P.I. of not greater than 12.

**152-1.3 Unsuitable Excavation.** Any material containing vegetable or organic matter (muck, peat, organic silt, or sod) shall be considered unsuitable for use in embankment construction. Material, approved by the Engineer as suitable to support vegetation, may be used on the embankment slope.

### CONSTRUCTION METHODS

**152-2.1 General.** Before beginning excavation, grading, and embankment operations in any area, the area shall be completely cleared.



The suitability of material to be placed in embankments shall be subject to approval by the Engineer. All unsuitable material shall be disposed of in waste areas shown on the plans. All waste areas shall be graded to allow positive drainage of the area and of adjacent areas. The surface elevation of waste areas shall not extend above the surface elevation of adjacent usable areas of the airport, unless specified on the plans or approved by the Engineer.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued. At the direction of the Engineer, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

Those areas outside of the pavement areas in which the top layer of soil material has become compacted, by hauling or other activities of the Contractor shall be scarified and disced to a depth of 4 inches, in order to loosen and pulverize the soil.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the Engineer, who shall arrange for their removal if necessary. The Contractor shall, at his/her own expense, satisfactorily repair or pay the cost of all damage to such facilities or structures which may result from any of the Contractor's operations during the period of the contract.

**152-2.2 EXCAVATION.** No excavation shall be started until the work has been staked out by the Contractor and the Engineer has obtained elevations and measurements of the ground surface. All suitable excavated material shall be used in the formation of embankment, sub-grade, or for other purposes shown on the plans. All unsuitable material shall be disposed of as shown on the plans.

When the volume of the excavation exceeds that required to construct the embankments to the grades indicated, the excess shall be used to grade the areas of ultimate development or disposed of as directed. When the volume of excavation is not sufficient for constructing the fill to the grades indicated, the deficiency shall be obtained from borrow areas.

The grade shall be maintained so that the surface is well drained at all times. When necessary, temporary drains and drainage ditches shall be installed to intercept or divert surface water which may affect the work.

**a. Selective Grading.** When selective grading is indicated on the plans, the more suitable material as designated by the Engineer shall be used in constructing the embankment or in capping the pavement sub-grade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas so that it can be measured for payment for re-handling as specified in paragraph 3.3.

**b. Undercutting.** Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for safety areas, sub-grades, roads, shoulders, or any areas intended for turfing shall be excavated to a minimum depth of 12 inches, or to the depth specified by the Engineer, below the sub-grade. Muck, peat, matted roots, or other yielding material, unsatisfactory for sub-grade foundation, shall be removed to the depth specified. Unsuitable materials shall be

disposed of at locations shown on the plans. The excavated area shall be refilled with suitable material obtained from the grading operations or borrow areas and compacted to specified densities. The necessary refilling will constitute a part of the embankment. Where rock cuts are made and refilled with selected material, any pockets created in the rock surface shall be drained in accordance with the details shown on the plans.

**c. Overbreak.** Overbreak, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the Engineer. The Engineer shall determine if the displacement of such material was unavoidable and his/her decision shall be final. All overbreak shall be graded or removed by the Contractor and disposed of as directed; however, payment will not be made for the removal and disposal of overbreak which the Engineer determines as avoidable. Unavoidable overbreak will be classified as "Unclassified Excavation."

**d. Removal of Utilities.** The removal of existing structures and utilities required to permit the orderly progress of work will be accomplished by someone other than the Contractor, e.g., the utility unless otherwise shown on the plans. All existing foundations shall be excavated for at least 2 feet below the top of subgrade or as indicated on the plans, and the material disposed of as directed. All foundations thus excavated shall be backfilled with suitable material and compacted as specified herein.

**e. Compaction Requirements.** The sub-grade under areas to be paved shall be compacted to a depth of 6" and to a density of not less than 95 percent of the maximum density as determined by ASTM D 698.

The in-place field density shall be determined in accordance with ASTM D 1556 or ASTM D 2167. Stones or rock fragments larger than 4 inches in their greatest dimension will not be permitted in top 6 inches of the sub-grade. The finished grading operations, conforming to the typical cross section, shall be completed and maintained at least 1,000 feet (300 m) ahead of the paving operations or as directed by the Engineer.

In cuts, all loose or protruding rocks on the back slopes shall be barred loose or otherwise removed to line of finished grade of slope. All cut-and-fill slopes shall be uniformly dressed to the slope, cross section, and alignment shown on the plans or as directed by the Engineer. Blasting will be permitted only when proper precautions are taken for the safety of all persons, the work, and the property. All damage done to the work or property shall be repaired at the Contractor's expense. All operations of the Contractor in connection with the transportation, storage, and use of explosives shall conform to all state and local regulations and explosive manufacturers' instructions, with applicable approved permits reviewed by the Engineer. Any approval given, however, will not relieve the Contractor of his/her responsibility in blasting operations.

Where blasting is approved, the Contractor shall employ a vibration consultant, approved by the Engineer, to advise on explosive charge weights per delay and to analyze records from seismograph recordings. The seismograph shall be capable of producing a permanent record of the three components of the motion in terms of particle velocity, and in addition shall be capable of internal dynamic calibration.

In each distinct blasting area, where pertinent factors affecting blast vibrations and their effects in the area remain the same, the Contractor shall submit a blasting plan of the initial blasts to the Engineer for approval. This plan must consist of hole size, depth, spacing, burden, type of explosives, type of delay sequence, maximum amount of explosive on any one delay period, depth of rock, and depth of overburden if any. The maximum explosive charge weights per delay included in the plan shall not be increased without the approval of the engineering.

The Contractor shall keep a record of each blast fired - its date, time and location; the amount of explosives used, maximum explosive charge weight per delay period, and, where necessary, seismograph records identified by instrument number and location.

These records shall be made available to the Engineer on a monthly basis or in tabulated form at other times as required.

**152-2.3 BORROW EXCAVATION.** When borrow sources are outside the boundaries of the airport property, it shall be the Contractor's responsibility to locate and obtain the supply, subject to the approval of the Engineer. The Contractor shall notify the Engineer; at least 15 days prior to beginning the excavation, so necessary measurements and tests can be made. All unsuitable material shall be disposed of by the Contractor. All borrow pits shall be opened up to expose the vertical face of various strata of acceptable material to enable obtaining a uniform product. Borrow pits shall be excavated to regular lines to permit accurate measurements, and they shall be drained and left in a neat, presentable condition with all slopes dressed uniformly.

**152-2.4 DRAINAGE EXCAVATION.** Drainage excavation shall consist of excavating for drainage ditches such as intercepting; inlet or outlet, for temporary levee construction; or for any other type as designed or as shown on the plans. The work shall be performed in the proper sequence with the other construction. All satisfactory material shall be placed in fills; unsuitable material shall be placed in waste areas or as directed. Intercepting ditches shall be constructed prior to starting adjacent excavation operations. All necessary work shall be performed to secure a finish true to line, elevation, and cross section.

The Contractor shall maintain ditches constructed on the project to the required cross section and shall keep them free of debris or obstructions until the project is accepted.

**152-2.5 PREPARATION OF EMBANKMENT AREA.** Where an embankment is to be constructed to a height of 4 feet or less, all sod and vegetable matter shall be removed from the surface upon which the embankment is to be placed, and the cleared surface shall be completely broken up by plowing or scarifying to a minimum depth of 6 inches. This area shall then be compacted as indicated in paragraph 2.6. When the height of fill is greater than 4 feet, sod not required to be removed shall be thoroughly disced and re-compacted to the density of the surrounding ground before construction of embankment. Where embankments are to be placed on natural slopes steeper than 3 to 1, horizontal benches shall be constructed as shown on the plans.

No direct payment shall be made for the work performed under this section. The necessary clearing and grubbing and the quantity of excavation removed will be paid for under the respective items of work.

**152-2.6 FORMATION OF EMBANKMENTS.** Embankments shall be formed in successive horizontal layers of not more than 8 inches in loose depth for the full width of the cross section, unless otherwise approved by the Engineer.

The grading operations shall be conducted, and the various soil strata shall be placed, to produce a soil structure as shown on the typical cross section or as directed. Materials such as brush, hedge, roots, stumps, grass and other organic matter, shall not be incorporated or buried in the embankment.

Operations on earthwork shall be suspended at any time when satisfactory results cannot be obtained because of rain, freezing, or other unsatisfactory conditions of the field. The Contractor shall drag, blade, or slope the embankment to provide proper surface drainage.

The material in the layer shall be within  $\pm 2$  percent of optimum moisture content before rolling to obtain the prescribed compaction. In order to achieve a uniform moisture content throughout the layer, wetting or drying of the material and manipulation shall be required when necessary. Should the material be too wet to permit proper compaction or rolling, all work on all of the affected portions of the embankment shall be delayed until the material has dried to the required moisture content. Sprinkling of dry material to obtain the proper moisture content shall be done with approved equipment that will sufficiently distribute the water. Sufficient equipment to furnish the required water shall be available at all times. Based on these tests, the Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content in order to achieve the correct embankment density.

Rolling operations shall be continued until the embankment is compacted to not less than 95 percent of maximum density for non-cohesive soils, and 90 percent of maximum density for cohesive soils as determined by ASTM 0698. Under all areas to be paved, the embankments shall be compacted to a depth of 6 inches and to a density of not less than 95 percent of the maximum density as determined by ASTM 698.

On all areas outside of the pavement areas, no compaction will be required on the top 4 inches.

The in-place field density shall be determined in accordance with ASTM D 1556 or ASTM D 2167.

Compaction areas shall be kept separate, and no layer shall be covered by another until the proper density is obtained.

During construction of the embankment, the Contractor shall route his/her equipment at all times, both when loaded and when empty, over the layers as they are placed and shall distribute the travel evenly over the entire width of the embankment. The equipment shall be operated in such a manner that hardpan, cemented gravel, clay, or other chunky soil material will be broken up into small particles and become incorporated with the other material in the layer.

In the construction of embankments, layer placement shall begin in the deepest portion of the fill; as placement progresses, layers shall be constructed approximately parallel to the finished pavement grade line.

When rock and other embankment material are excavated at approximately the same time, the rock shall be incorporated into the outer portion of the embankment and the other material shall be incorporated under the future paved areas. Stones or fragmentary rock larger than 4 inches in their greatest dimensions will not be allowed in the top 6 inches of the sub-grade. Rock fill shall be brought up in layers as specified or as directed and every effort shall be exerted to fill the voids with the finer material forming a dense, compact mass. Rock or boulders shall not be disposed of outside the excavation or embankment areas, except at places and in the manner designated by the Engineer.

When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in layers of the prescribed thickness without crushing, pulverizing or further breaking down the pieces, such material may be placed in the embankment as directed in layers not exceeding 2 feet in thickness. Each layer shall be leveled and smoothed with suitable leveling equipment and by distribution of spalls and finer fragments of rock. These type lifts shall not be constructed above an elevation 4 feet below the finished sub-grade. Density requirements will not apply to portions of embankments constructed of materials which cannot be tested in accordance with specified methods.

Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material. There will be no separate measurement of payment for compacted embankment, and all costs incidental to placing in layers, compacting, discing, watering, mixing, sloping, and other necessary operations for construction of embankments will be included in the contract price for excavation, borrow, or other items.

**152-2.7 FINISHING AND PROTECTION OF SUBGRADE.** After the sub-grade has been substantially completed the full width shall be conditioned by removing any soft or other unstable material which will not compact properly. The resulting areas and all other low areas, holes or depressions shall be brought to grade with suitable select material. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted sub-grade shaped to the lines and grades shown on the plans.

Grading of the sub-grade shall be performed so that it will drain readily. The Contractor shall take all precautions necessary to protect the sub-grade from damage. He/she shall limit hauling over the finished sub-grade to that which is essential for construction purposes.

All ruts or rough places that develop in a completed sub-grade shall be smoothed and re-compacted.

No sub-base, base, or surface course shall be placed on the sub-grade until the sub-grade has been approved by the Engineer.

**152-2.8 HAUL.** All hauling will be considered a necessary and incidental part of the work. Its cost shall be considered by the Contractor and included in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

**152-2.9 TOLERANCES.** In those areas upon which a sub-base or base course is to be placed, the top of the sub-grade shall be of such smoothness that, when tested with a 16-foot (4.8 m) straightedge applied parallel and at right angles to the centerline, it shall not show any deviation

in excess of 1/2-inch, or shall not be more than 0.05-foot (.015 m) from true grade as established by grade hubs or pins. Any deviation in excess of these amounts shall be corrected by loosening, adding, or removing materials; reshaping; and re-compacting by sprinkling and rolling.

On safety areas, intermediate and other designated areas, the surface shall be of such smoothness that it will not vary more than 0.10 foot (0.03 m) from true grade as established by grade hubs. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

**152-2.10 TOPSOIL.** When topsoil is specified or required as shown on the plans or under Item T-905, it shall be salvaged from stripping or other grading operations. The topsoil shall meet the requirements of Item T-905. If, at the time of excavation or stripping, the topsoil cannot be placed in its proper and final section of finished construction, the material shall be stockpiled at approved locations. Stockpiles shall not be placed within 250 feet of runway pavement or 125 feet of taxiway pavement and shall not be placed on areas which subsequently will require any excavation or embankment. If, in the judgment of the Engineer, it is practical to place the salvaged topsoil at the time of excavation or stripping, the material shall be placed in its final position without stockpiling or further re-handling.

Upon completion of grading operations, stockpiled topsoil shall be handled and placed as directed, or as required in Item T-905.

No direct payment will be made for topsoil as such under Item P-152. The quantity removed and placed directly or stockpiled shall be paid for at the contract unit price per cubic yard for Unclassified Excavation.

When stockpiling of topsoil and later re-handling of such material is directed by the Engineer, the material so re-handled shall be paid for at the contract unit price per cubic yard for Embankment in Place.

## **METHOD OF MEASUREMENT**

**152-3.1** The quantity of excavation to be paid for shall be the number of cubic yards measured in its original position. The quantity for excavation – pavement removal will be that which is represented in the plans.

Measurement shall not include the quantity of materials excavated without authorization beyond normal slope lines, or the quantity of material used for purposes other than those directed.

**152-3.2** For payment specified by the cubic yard, measurement for all excavation or embankment shall be computed by the average end area method. The end area is that bound by the original ground line established by field cross sections and the final theoretical pay line established by excavation or embankment cross sections shown on the plans, subject to verification by the Engineer. After completion of all excavation or embankment operations and prior to the placing of base or subbase material, the final excavation or embankment shall be verified by the Engineer by means of field cross sections taken randomly at intervals not exceeding 500 linear feet.

## **BASIS OF PAYMENT**

152-4.1 For "Unclassified excavation" payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

152-4.2 For "Embankment in Place" payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

|                |                                        |
|----------------|----------------------------------------|
| Item P-152-4.1 | Unclassified Excavation—per cubic yard |
|----------------|----------------------------------------|

|                |                                    |
|----------------|------------------------------------|
| item P-152-4.2 | Embankment in Place—per cubic yard |
|----------------|------------------------------------|

## **TESTING REQUIREMENTS**

|            |                                                                                                                   |
|------------|-------------------------------------------------------------------------------------------------------------------|
| ASTM D 698 | Test for Moisture Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5-pound Rammer and 12-inch Drop |
|------------|-------------------------------------------------------------------------------------------------------------------|

|             |                                                           |
|-------------|-----------------------------------------------------------|
| ASTM D 1556 | Test for Density of Soil in Place by the Sand-Cone Method |
|-------------|-----------------------------------------------------------|

|             |                                                                                                                  |
|-------------|------------------------------------------------------------------------------------------------------------------|
| ASTM D 1557 | Test for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 10-pound Rammer and 18-inch Drop |
|-------------|------------------------------------------------------------------------------------------------------------------|

|             |                                                                                |
|-------------|--------------------------------------------------------------------------------|
| ASTM D 2167 | Test for Density and Unit Weight of Soil in Place by the Rubber Balloon Method |
|-------------|--------------------------------------------------------------------------------|

END ITEM P-152

## ITEM P-209 CRUSHED AGGREGATE BASE COURSE

### DESCRIPTION

**209-1.1** This item consists of a base course composed of crushed aggregates constructed on a prepared course in accordance with these specifications and in conformity to the dimensions and typical cross sections shown on the plans.

### MATERIALS

**209-2.1 AGGREGATE.** Aggregates shall consist of clean, sound, durable particles of crushed stone, crushed gravel, or crushed slag and shall be free from coatings of clay, silt, vegetable matter, and other objectionable materials and shall contain no clay balls. Fine aggregate passing the No. 4 (4.75 mm) sieve shall consist of fines from the operation of crushing the coarse aggregate. If necessary, fine aggregate may be added to produce the correct gradation. The fine aggregate shall be produced by crushing stone, gravel, or slag that meet the requirements for wear and soundness specified for coarse aggregate.

The crushed slag shall be an air-cooled, blast furnace slag and shall have a unit weight of not less than 70 pounds per cubic foot (1.12 Mg/cubic meter) when tested in accordance with ASTM C 29.

The crushed aggregate portion which is retained on the No. 4 (4.75 mm) sieve shall contain not more than 15 percent, by weight, of flat or elongated pieces as defined in ASTM D 693 and shall have at least 90 percent by weight of particles with at least two fractured faces and 100 percent with at least one fractured face. The area of each face shall be equal to at least 75 percent of the smallest midsectional area of the piece. When two fractured faces are contiguous, the angle between the planes of fractures shall be at least 30 to count as two fractured faces.

The percentage of wear shall not be greater than 45 percent when tested in accordance with ASTM C 131. The sodium sulfate soundness loss shall not exceed 12 percent, after 5 cycles, when tested in accordance with ASTM C 88.

The fraction passing the No. 40 (0.42 mm) sieve shall have a liquid limit no greater than 25 and a plasticity index of not more than 4 when tested in accordance with ASTM D 4318. The fine aggregate shall have a minimum sand equivalent value of 35 when tested in accordance with ASTM D 2419.

**a. Sampling and Testing.** Aggregates for preliminary testing shall be furnished by the Contractor prior to the start of production. All tests for initial aggregate submittals necessary to determine compliance with the specification requirements will be made by the Engineer at no expense to the Contractor.

Samples of aggregates shall be furnished by the Contractor at the start of production and at intervals during production. The sampling points and intervals will be designated by the



Engineer. The samples will be the basis of approval of specific lots of aggregates from the standpoint of the quality requirements of this section.

In lieu of testing, the Engineer may accept certified state test results indicating that the aggregate meets specification requirements.

Samples of aggregates to check gradation shall be taken by the Engineer at least once daily. Sampling shall be in accordance with ASTM D 75, and testing shall be in accordance with ASTM C 136 and ASTM C 117.

**b. Gradation Requirements.** The gradation (job mix) of the final mixture shall fall within the design range indicated in Table 1, when tested in accordance with ASTM C 117 and ASTM C 136. The final gradation shall be continuously well graded from coarse to fine and shall not vary from the low limit on one sieve to the high limit on an adjacent sieve or vice versa.

**TABLE 1. REQUIREMENTS FOR GRADATION OF AGGREGATE \1\**

| <b>Sieve Size</b>  | <b>Design Range<br/>Percentage by Weight<br/>Passing Sieves</b> | <b>Job Mix Tolerances<br/>Percent</b> |
|--------------------|-----------------------------------------------------------------|---------------------------------------|
| 2 in (50.0 mm)     | 100                                                             | 0                                     |
| 1-1/2 (37.0 mm)    | 95-100                                                          | +/- 5                                 |
| 1 in (25.0 mm)     | 70-95                                                           | +/- 8                                 |
| 3/4 in (19.0 mm)   | 55-85                                                           | +/- 8                                 |
| No. 4 (4.75 mm)    | 30-60                                                           | +/- 8                                 |
| No. 30 (0.60 mm)   | 12-30                                                           | +/- 5                                 |
| No. 200 (0.075 mm) | 0-8                                                             | +/- 3                                 |

\1\ Where environmental conditions (temperature and availability of free moisture) indicate potential damage due to frost action, the maximum percent of material, by weight, of particles smaller than 0.02 mm shall be 3 percent. It also may be necessary to have a lower percentage of material passing the No. 200 sieve to help control the percentage of particles smaller than 0.02 mm.

The job mix tolerances in Table 1 shall be applied to the job mix gradation to establish a job control grading band. The full tolerance still will apply if application of the tolerances results in a job control grading band outside the design range.

The fraction of the final mixture that passes the No. 200 (0.075 mm) sieve shall not exceed 60 percent of the fraction passing the No. 30 (0.60 mm) sieve.

## **CONSTRUCTION METHODS**

**209-3.1 PREPARING UNDERLYING COURSE.** The underlying course shall be checked and accepted by the Engineer before placing and spreading operations are started. Any ruts or soft yielding places caused by improper drainage conditions, hauling, or any other cause shall be

corrected at the Contractor's expense before the base course is placed thereon. Material shall not be placed on frozen subgrade.

**209-3.2 MIXING.** The aggregate shall be uniformly blended during crushing operations or mixed in a plant. The plant shall blend and mix the materials to meet the specifications and to secure the proper moisture content for compaction.

**209-3.3 PLACING.** The crushed aggregate base material shall be placed on the moistened subgrade in layers of uniform thickness with a mechanical spreader.

The maximum depth of a compacted layer shall be 6 inches (150 mm). If the total depth of the compacted material is more than 6 inches (150 mm), it shall be constructed in two or more layers. In multi-layer construction, the base course shall be placed in approximately equal-depth layers.

The previously constructed layer should be cleaned of loose and foreign material prior to placing the next layer. The surface of the compacted material shall be kept moist until covered with the next layer.

**209-3.4 COMPACTION.** Immediately upon completion of the spreading operations, the crushed aggregate shall be thoroughly compacted. The number, type, and weight of rollers shall be sufficient to compact the material to the required density.

The moisture content of the material during placing operations shall not be below, nor more than 1-½ percentage points above, the optimum moisture content as determined by ASTM D 1557.

**209-3.5 ACCEPTANCE SAMPLING AND TESTING FOR DENSITY.** Aggregate base course shall be accepted for density on a lot basis. A lot will consist of one day's production where it is not expected to exceed 2400 square yards (2000 square meters). A lot will consist of one-half day's production where a day's production is expected to consist of between 2400 and 4800 square yards (2000 and 4000 square meters).

Each lot shall be divided into two equal sublots. One test shall be made for each subplot. Sampling locations will be determined by the Engineer on a random basis in accordance with statistical procedures contained in ASTM D 3665.

Each lot shall be divided into two equal sublots. One test shall be made for each subplot. Sampling locations will be determined by the Engineer on a random basis in accordance with statistical procedures contained in ASTM D 3665.

Each lot will be accepted for density when the field density is at least 100 percent of the maximum density of laboratory specimens prepared from samples of the base course material delivered to the job site. The specimens shall be compacted and tested in accordance with ASTM D 1557. The in-place field density shall be determined in accordance with ASTM D 1556 or D 2167. If the specified density is not attained, the entire lot shall be reworked and/or

recompacted and two additional random tests made. This procedure shall be followed until the specified density is reached.

In lieu of the core method of field density determination, acceptance testing may be accomplished using a nuclear gage in accordance with ASTM D 2922. The gage should be field calibrated in accordance with paragraph 4 of ASTM D 2922. Calibration tests shall be conducted on the first lot of material placed that meets the density requirements.

Use of ASTM D 2922 results in a wet unit weight, and when using this method, ASTM D 3017 shall be used to determine the moisture content of the material. The calibration curve furnished with the moisture gages shall be checked as described in paragraph 7 of ASTM D 3017. The calibration checks of both the density and moisture gages shall be made at the beginning of a job and at intervals as determined by the Engineer.

If a nuclear gage is used for density determination, two random readings shall be made for each subplot.

**209-3.6 FINISHING.** The surface of the aggregate base course shall be finished by blading or with automated equipment especially designed for this purpose.

In no case will the addition of thin layers of material be added to the top layer of base course to meet grade. If the elevation of the top layer is 1/2 inch (12 mm) or more below grade, the top layer of base shall be scarified to a depth of at least 3 inches (75 mm), new material added, and the layer shall be blended and recompacted to bring it to grade. If the finished surface is above plan grade, it shall be cut back to grade and rerolled.

**209-3.7 SURFACE TOLERANCES.** The finished surface shall not vary more than 3/8 inch (9 mm) when tested with a 16-foot (4.8 m) straightedge applied parallel with or at right angles to the centerline. Any deviation in excess of this amount shall be corrected by the Contractor at the Contractor's expense.

**209-3.8 THICKNESS CONTROL.** The completed thickness of the base course shall be within 1/2 inch (12 mm) of the design thickness. Four determinations of thickness shall be made for each lot of material placed. The lot size shall be consistent with that specified in paragraph 3.5. Each lot shall be divided into four equal sublots. One test shall be made for each subplot. Sampling locations will be determined by the Engineer on a random basis in accordance with procedures contained in ASTM D 3665. Where the thickness is deficient by more than 1/2 inch (12 mm), the Contractor shall correct such areas at no additional cost by excavating to the required depth and replacing with new material. Additional test holes may be required to identify the limits of deficient areas.

**209-3.9 MAINTENANCE.** The base course shall be maintained in a condition that will meet all specification requirements until the work is accepted. Equipment used in the construction of an adjoining section may be routed over completed portions of the base course, provided no damage results and provided that the equipment is routed over the full width of the base course to avoid rutting or uneven compaction.

## METHOD OF MEASUREMENT

**209-4.1.** The quantity of crushed aggregate base course to be paid for will be determined by measurement of the number of cubic yards of material actually constructed and accepted by the Engineer as complying with the plans and specifications.

## BASIS OF PAYMENT

**209-5.1.** Payment shall be made at the contract unit price per cubic yard for crushed aggregate base course. This price shall be full compensation for furnishing all materials, for preparing and placing these materials, and for all labor, equipment tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-209      Crushed Aggregate Base Course—per cubic yard.

## TESTING REQUIREMENTS

|             |                                                                                                                      |
|-------------|----------------------------------------------------------------------------------------------------------------------|
| ASTM C 29   | Unit Weight of Aggregate                                                                                             |
| ASTM C 88   | Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate                                                |
| ASTM C 117  | Materials Finer than 75 $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing                                     |
| ASTM C 131  | Resistance to Degradation of Small-Size Coarse Aggregate by abrasion and impact in the Los Angeles Machine           |
| ASTM C 136  | Sieve Analysis of Fine and Coarse Aggregates                                                                         |
| ASTM D 75   | Sampling Aggregate                                                                                                   |
| ASTM D 693  | Crushed Aggregate for Macadam Pavements                                                                              |
| ASTM D 698  | Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 5.5-lb (2.49-kg) Rammer and 12-in (305mm) Drop |
| ASTM D 1556 | Density of Soil in Place by the Sand-Cone Method                                                                     |
| ASTM D 1557 | Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb Rammer and 18 in Drop                    |
| ASTM D 2167 | Density and Unit Weight of Soil in Place by the Rubber Balloon                                                       |

|             | Method                                                         |
|-------------|----------------------------------------------------------------|
| ASTM D 2419 | Sand Equivalent Value of Soils and Fine Aggregate              |
| ASTM D 2922 | Density of Soil and Soil-Aggregate in Place by Nuclear Methods |
| ASTM D 3017 | Water Content of Soil and Rock in Place by Nuclear Methods     |
| ASTM D 3665 | Random Sampling of Construction Materials                      |
| ASTM D 4318 | Liquid Limit, Plastic Limit, and Plasticity Index of Soils     |

END ITEM P-209

## ITEM P-401: PLANT MIX BITUMINOUS PAVEMENTS

### DESCRIPTION

**401-1.1** This item shall consist of a surface course composed of mineral aggregate and bituminous material mixed in a central mixing plant and placed on a prepared course in accordance with these specifications and shall conform to the lines, grades, thicknesses, and typical cross sections shown on the plans. Each course shall be constructed to the depth, typical section, or elevation required by the plans and shall be rolled, finished, and approved before the placement of the next course.

### MATERIALS

**401-2.1 AGGREGATE.** Aggregates shall consist of crushed stone, crushed gravel, or crushed slag with or without sand or other inert finely divided mineral aggregate. The portion of materials retained on the No. 8 sieve is coarse aggregate. The portion passing the No. 8 (2.36 mm) sieve and retained on the No. 200 (0.075 mm) sieve is fine aggregate, and the portion passing the No. 200 (0.075 mm) sieve is mineral filler.

**a. Coarse Aggregate.** Coarse aggregate shall consist of sound, tough, durable particles, free from adherent films of matter that would prevent thorough coating and bonding with the bituminous material and be free from organic matter and other deleterious substances. The percentage of wear shall not be greater than 40 percent when tested in accordance with ASTM C 131. The sodium sulfate soundness loss shall not exceed 10 percent, or the magnesium sulfate soundness loss shall not exceed 13 percent, after five cycles, when tested in accordance with ASTM C 88.

Aggregate shall contain at least 50 percent by weight of individual pieces having two or more fractured faces and 65 percent by weight having at least one fractured face. The area of each face shall be equal to at least 75 percent of the smallest midsectional area of the piece. When two fractured faces are contiguous, the angle between the planes of fractures shall be at least 30 degrees to count as two fractured faces. Fractured faces shall be obtained by crushing.

The aggregate shall not contain more than a total of 8 percent, by weight, of flat or elongated pieces, when tested in accordance with ASTM D 4791.

Slag shall be air-cooled, blast furnace slag, and shall have a compacted weight of not less than 70 pounds per cubic foot (1.12 mg/cubic meter) when tested in accordance with ASTM C 29.

**b. Fine Aggregate.** Fine aggregate shall consist of clean, sound, durable, angular shaped particles produced by crushing stone, slag, or gravel that meets the requirements for wear and soundness specified for coarse aggregate. The aggregate particles shall be free from coatings of clay, silt, or other objectionable matter and shall contain no clay balls. The fine aggregate, including any blended material for the fine aggregate, shall have a plasticity index of not more than 6 and a liquid limit of not more than 25 when tested in accordance with ASTM D 4318.

Natural (non-manufactured) sand may be used to obtain the gradation of the aggregate blend or to improve the workability of the mix. The amount of sand to be added will be adjusted to produce mixtures conforming to requirements of this specification. The fine aggregate shall not contain more than 20 percent natural sand by weight of total aggregates.

The aggregate shall have sand equivalent values of 35 or greater when tested in accordance with ASTM D 2419.

**c. Sampling.** ASTM D 75 shall be used in sampling coarse and fine aggregate, and ASTM C 183 shall be used in sampling mineral filler.

**401-2.2 MINERAL FILLER.** If filler, in addition to that naturally present in the aggregate, is necessary, it shall meet the requirements of ASTM D 242.

**401-2.3 BITUMINOUS MATERIAL.** Bituminous material shall conform to the following requirements: ASTM D 946, Penetration Grade 85-100.

The Contractor shall furnish vendor's certified test reports for each lot of bituminous material shipped to the project. The vendor's certified test report for the bituminous material can be used for acceptance or tested independently by the Engineer.

**401-2.4 PRELIMINARY MATERIAL ACCEPTANCE.** Prior to delivery of materials to the job site, the Contractor shall submit certified test reports to the Engineer for the following materials:

**a. Coarse Aggregate.**

- (1) Percent of wear.
- (2) Soundness.
- (3) Unit weight of slag.

**b. Fine Aggregate.**

- (1) Liquid limit.
- (2) Plasticity index.
- (3) Sand equivalent.

**c. Mineral Filler.**

**d. Bituminous Material.**

The certification(s) shall show the appropriate ASTM test(s) for each material, the test results, and a statement that the material meets the specification requirement.

The Engineer may request samples for testing, prior to and during production, to verify the quality of the materials and to ensure conformance with the applicable specifications.

## COMPOSITION

**401-3.1 COMPOSITION OF MIXTURE.** The bituminous plant mix shall be composed of a mixture of well-graded aggregate, filler if required, and bituminous material. The several aggregate fractions shall be sized, handled in separate size groups, and combined in such proportions that the resulting mixture meets the grading requirements of the job mix formula (JMF).

**401-3.2 JOB MIX FORMULA.** No bituminous mixture for payment shall be produced until a job mix formula has been approved by the Engineer. The bituminous mixture shall be designed using procedures contained in Chapter III, MARSHALL METHOD OF MIX DESIGN, of the Asphalt Institute's Manual Series No. 2 (MS-2), Mix Design Methods for Asphalt Concrete, and shall meet the requirements of Tables 1 and 2.

The design criteria in Table 1 are target values necessary to meet the acceptance requirements contained in paragraph 401-5.2b. The criteria is based on a production process which has a material variability with the following standard deviations:

Stability (lbs.) = 270  
Flow (0.01 inch) = 1.5  
Air Voids (%) = 0.65

If material variability exceeds the standard deviations indicated, the job mix formula and subsequent production targets should be based on a stability greater than shown in Table 1, and the flow and air voids should be targeted close to the mid-range of the criteria in order to meet the acceptance requirements.

If the Tensile Strength Ratio (TSR) of the composite mixture, as determined by ASTM D 4867, is less than 75, the aggregates shall be rejected or the asphalt treated with an approved anti-stripping agent. The amount of anti-stripping agent added to the asphalt shall be sufficient to produce a TSR of not less than 75. If an antistrip agent is required, it will be provided by the Contractor at no additional cost.

The job mix formula shall be submitted in writing by the Contractor to the Engineer at least 30 days prior to the start of paving operations and shall include as a minimum:

- a. Percent passing each sieve size.
- b. Percent of asphalt cement.
- c. Asphalt viscosity or penetration grade.
- d. Number of blows of hammer compaction per side of molded specimen.
- e. Mixing temperature.



- f. Compaction temperature.
- g. Temperature of mix when discharged from the mixer.
- h. Temperature-viscosity relationship of the asphalt cement.
- i. Plot of the combined gradation on the Federal Highway Administration (FHWA) 45 power gradation curve.
- j. Graphical plots of stability, flow, air voids, voids in the mineral aggregate, and unit weight versus asphalt content.
- k. Percent natural sand.
- l. Percent fractured faces.
- m. Percent elongated particles.
- n. Tensile Strength Ratio (TSR).
- o. Antistrip agent (if required).

The Contractor shall submit samples to the Engineer, upon request, for job mix formula verification testing.

The job mix formula for each mixture shall be in effect until modified in writing by the Engineer. Should a change in sources of materials be made, a new job mix formula must be approved by the Engineer before the new material is used.

**TABLE 1. MARSHALL DESIGN CRITERIA**

| TEST PROPERTY                                  | Gross Wgt. > 60,000 lbs<br>Or Tire Pressure > 100 PSI |
|------------------------------------------------|-------------------------------------------------------|
| Number of blows                                | 75                                                    |
| Stability, pounds (newtons)<br>minimum         | 2150 (9555)                                           |
| Flow, 0.01 in. (0.25 mm)                       | 10-14                                                 |
| Air voids (percent)                            | 2.8-4.2                                               |
| Voids filled with asphalt<br>(percent)         | 65-75                                                 |
| Percent voids in mineral<br>aggregate, minimum | See Table 2                                           |

**TABLE 2. MINIMUM PERCENT  
VOIDS IN MINERAL AGGREGATE**

| Nominal Maximum Aggregate<br>Size 1/ |       | Minimum Voids<br>in Mineral<br>Aggregate,<br>Percent Design<br>Air Voids |
|--------------------------------------|-------|--------------------------------------------------------------------------|
| in.                                  | mm    | Percent                                                                  |
| 1/2                                  | 12.5  | 13                                                                       |
| 3/4                                  | 19.5  | 12                                                                       |
| 1                                    | 25.0  | 11                                                                       |
| 1-1/4                                | 31.25 | 10                                                                       |

1/ The nominal maximum aggregate size is the next larger sieve size than the sieve on which at least 10 percent of the total aggregate is retained.

The mineral aggregate shall be of such size that the percentage composition by weight, as determined by laboratory screens, will conform to the gradation or gradations specified in Table 3 when tested in accordance with ASTM Standard C 136 and C 117.

The gradations in Table 3 represent the limits which shall determine the suitability of aggregate for use from the sources of supply. The aggregate, as selected (and used in the JMF), shall have a gradation within the limits designated in Table 3 and shall not vary from the low limit on one sieve to the high limit on the adjacent sieve, or vice versa, but shall be well graded from coarse to fine.

Deviations from the final approved mix design for bitumen content and gradation of aggregates shall be within the action limits for individual measurements as specified in paragraph 401-6.5a. The limits still will apply if they fall outside the master grading band in Table 3.

The maximum size aggregate used shall not be more than one-half of the thickness of the course being constructed.

**TABLE 3. AGGREGATE - BITUMINOUS PAVEMENTS**

| Sieve Size           | Percentage by Weight Passing<br>Sieves 1" max |
|----------------------|-----------------------------------------------|
| 1-1/4 in. (31.25 mm) | -                                             |
| 1 in. (25.0 mm)      | 100                                           |
| 3/4 in. (19.0 mm)    | 76-98                                         |
| 1/2 in. (12.5 mm)    | 66-86                                         |
| 3/8 in. (9.5 mm)     | 57-77                                         |
| No. 4 (4.75 mm)      | 40-60                                         |
| No. 8 (2.36 mm)      | 26-46                                         |
| No. 16 (1.18 mm)     | 17-37                                         |
| No. 30 (0.60 mm)     | -                                             |
| No. 50 (0.30 mm)     | 7-19                                          |

**TABLE 3. AGGREGATE - BITUMINOUS PAVEMENTS**

| <b>Sieve Size</b>  | <b>Percentage by Weight Passing<br/>Sieves 1" max</b> |
|--------------------|-------------------------------------------------------|
| No. 100 (0.15 mm)  | 6-16                                                  |
| No. 200 (0.075 mm) | 3-6                                                   |
| Asphalt percent    |                                                       |
| Stone or gravel    | 4.5-7.0                                               |

The aggregate gradations shown are based on aggregates of uniform specific gravity. The percentages passing the various sieves shall be corrected when aggregates of varying specific gravities are used, as indicated in the Asphalt Institute Manual Series No. 2 (MS-2), Appendix A.

**401-3.3 RECYCLED ASPHALT CONCRETE.** Recycled asphalt concrete shall consist of reclaimed asphalt pavement (RAP), coarse aggregate, fine aggregate, mineral filler, asphalt cement, and recycling agent, if necessary. Reclaimed asphalt pavement may be used for all courses.

The RAP shall be of a consistent gradation and asphalt content. The Contractor may obtain the RAP from the job site or existing source.

All new aggregates used in the recycled mix shall meet the requirements of paragraph 401-2.1. New bituminous material shall meet the requirements of paragraph 401-2.3. Recycling agents shall meet the requirements of ASTM D 4552.

The recycled asphalt concrete mix shall be designed using procedures contained in the Asphalt Institute's Manual Series Number 20 (MS-20), Asphalt Hot-Mix Recycling, in conjunction with MS-2 (MS-2). The job mix shall meet the requirements of paragraph 401-3.2. In addition to the requirements of paragraph 401-3.2, the job mix formula shall indicate the percent of reclaimed asphalt pavement, the percent and viscosity grade of new asphalt, the percent and grade of hot-mix recycling agent (if used), and the properties (including viscosity and penetration) of the asphalt blend.

The Contractor shall submit documentation to the Engineer, indicating that the mixing equipment proposed for use is adequate to mix the percent of RAP shown in the job mix formula and meet all local and national environmental regulations.

**401-3.4 TEST SECTION.** Prior to full production, the Contractor shall prepare and place a quantity of bituminous mixture according to the job mix formula. The amount of mixture should be sufficient to construct a test section 60 long and 20 wide, placed in two lanes, with a longitudinal cold joint, and shall be of the same depth specified for the construction of the course which it represents. The underlying grade or pavement structure upon which the test section is to be constructed shall be the same as the remainder of the course represented by the test section. The equipment used in construction of the test section shall be the same type and weight to be used on the remainder of the course represented by the test section.

Three random samples shall be taken at the plant and tested for stability, flow, and air voids in accordance with paragraph 401-5.1a(2). Three randomly selected cores shall be taken from the finished pavement mat, and three from the longitudinal joint, and tested in accordance with paragraph 401-5.1b(4). Random sampling shall be in accordance with procedures contained in ASTM D 3665.

Stability, flow, and air voids shall be evaluated in accordance with paragraph 401-5.2b. Mat density shall be evaluated in accordance with paragraph 401-5.2c. Joint density shall be evaluated in accordance with paragraph 401-5.2d. The test section shall be considered acceptable if the percentage of material within limits (PWL) is 90 or more.

Two random samples of mixture shall be taken at the plant and tested for aggregate gradation and asphalt content in accordance with paragraphs 401-6.3a and 3b and evaluated in accordance with paragraphs 401-6.5a and 5b. The test section shall be considered acceptable if the gradation and asphalt content are within the limits specified in paragraphs 401-6.5a and 5b.

Voids in the mineral aggregate (VMA), for each plant sample, shall be computed in accordance with procedures contained in Chapter III, MARSHALL METHOD OF MIX DESIGN, of the Asphalt Institute's Manual Series No. 2 (MS-2), Mix Design for Asphalt Concrete.

Voids filled with asphalt, for each plant sample, shall be computed as follows:

- a. Determine asphalt content in percentage by volume using:

$$I = \frac{P_b \times G_{mb}}{G_b}$$

Where:

I = Percentage by volume of asphalt

P<sub>b</sub> = Percentage by weight of asphalt

G<sub>mb</sub> = Bulk specific gravity of compacted mixture

G<sub>b</sub> = Specific gravity of asphalt

- b. Determine percent voids filled with asphalt as follows:

$$VF = \frac{I}{I + P_a} \times 100$$

Where:

VF = Percent voids filled with asphalt

I = Percentage by volume of asphalt

$P_a$  = Percent air voids

The test section shall be considered acceptable if the voids in the mineral aggregate and the voids filled with asphalt are within the limits of Table 1.

If the test section should prove to be unsatisfactory, the necessary adjustments to the job mix formula, plant operation, placing procedures, and/or rolling procedures shall be made. A second test section shall then be placed. If the second test section also does not meet specification requirements, both sections shall be removed at the Contractor's expense. Additional test sections, as required, shall be constructed and evaluated for conformance to the specifications. Any additional sections that do not conform to specification requirements shall be removed at the Contractor's expense. Full production shall not begin until a satisfactory section has been constructed and accepted by the Engineer. The initial test section and any subsequent section that meets specification requirements shall be paid for in accordance with paragraph 401-8.1.

Job mix control testing shall be performed by the Contractor at the start of plant production and in conjunction with the calibration of the plant for the job mix formula. It should be recognized that the aggregates produced by the plant may not satisfy the gradation requirements or produce a mix that exactly meets the JMF. In those instances, it will be necessary to reevaluate and redesign the mix using plant-produced aggregates. Specimens should be prepared and the optimum bitumen content determined in the same manner as for the original design tests.

**401-3.5 TESTING LABORATORY.** The laboratory used to develop the job mix formula shall meet the requirements of ASTM D 3666. A certification signed by the manager of the laboratory stating that it meets these requirements shall be submitted to the Engineer prior to the start of construction. The certification shall contain as a minimum:

- a. Qualifications of personnel; laboratory manager, supervising technician, and testing technicians.
- b. A listing of equipment to be used in developing the job mix.
- c. A copy of the laboratory's quality control system.
- d. Evidence of participation in the AASHTO Materials Reference Laboratory (AMRL) program.

## **CONSTRUCTION METHODS**

**401-4.1 WEATHER LIMITATIONS.** The bituminous mixture shall not be placed upon a wet surface or when the surface temperature of the underlying course is less than specified in Table 4. The temperature requirements may be waived by the Engineer, if requested; however, all other requirements including compaction shall be met.

**TABLE 4. BASE TEMPERATURE LIMITATIONS**

| <b>Mat Thickness</b>                                        | <b>Base Temperature (Minimum)</b> |               |
|-------------------------------------------------------------|-----------------------------------|---------------|
|                                                             | <b>Deg. F</b>                     | <b>Deg. C</b> |
| 3 in. (7.5 cm) or greater                                   | 40                                | 4             |
| Greater than 1 in. (2.5 cm)<br>but less than 3 in. (7.5 cm) | 45                                | 7             |
| 1 in. (2.5 cm) or less                                      | 50                                | 10            |

**401-4.2 BITUMINOUS MIXING PLANT.** Plants used for the preparation of bituminous mixtures shall conform to the requirements of ASTM D 995 with the following changes:

**a. Requirements for All Plants.**

(1) **Truck Scales.** The bituminous mixture shall be weighed on approved scales furnished by the Contractor, or on certified public scales at the Contractor's expense. Scales shall be inspected and sealed as often as the Engineer deems necessary to assure their accuracy. Scales shall conform to the requirements of the General Provisions, Section 90-01.

(2) **Testing Facilities.** The Contractor shall provide laboratory facilities at the plant for the use of the Engineer's acceptance testing and the Contractor's quality control testing, in accordance with paragraph 401-6.2d. .

(3) **Inspection of Plant.** The Engineer, or Engineer's authorized representative, shall have access, at all times, to all areas of the plant for checking adequacy of equipment; inspecting operation of the plant; verifying weights, proportions, and material properties; and checking the temperatures maintained in the preparation of the mixtures.

(4) **Storage Bins and Surge Bins.** Paragraph 3.9 of ASTM D 995 is deleted. Instead, the following applies. Use of surge and storage bins for temporary storage of hot bituminous mixtures will be permitted as follows:

(a) The bituminous mixture may be stored in surge bins for period of time not to exceed 3 hours.

(b) The bituminous mixture may be stored in insulated storage bins for a period of time not to exceed 24 hours.

The bins shall be such that mix drawn from them meets the same requirements as mix loaded directly into trucks.

If the Engineer determines that there is an excessive amount of heat loss, segregation, or oxidation of the mixture due to temporary storage, no overnight storage will be allowed.

**401-4.3 HAULING EQUIPMENT.** Trucks used for hauling bituminous mixtures shall have tight, clean, and smooth metal beds. To prevent the mixture from adhering to them, the truck beds shall be lightly coated with a minimum amount of paraffin oil, lime solution, or other approved material. Each truck shall have a suitable cover to protect the mixture from adverse weather. When necessary, to ensure that the mixture will be delivered to the site at the specified temperature, truck beds shall be insulated or heated and covers shall be securely fastened.

**401-4.4 BITUMINOUS PAVERS.** Bituminous pavers shall be self-propelled with an activated screed, heated as necessary, and shall be capable of spreading and finishing courses of bituminous plant mix material which will meet the specified thickness, smoothness, and grade. The paver shall have sufficient power to propel itself and the hauling equipment without adversely affecting the finished surface.

The paver shall have a receiving hopper of sufficient capacity to permit a uniform spreading operation. The hopper shall be equipped with a distribution system to place the mixture uniformly in front of the screed without segregation. The screed shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, or gouging the mixture.

If an automatic grade control device is used, the paver shall be equipped with a control system capable of automatically maintaining the specified screed elevation. The control system shall be automatically actuated from either a reference line and/or through a system of mechanical sensors or sensor-directed mechanisms or devices which will maintain the paver screed at a predetermined transverse slope and at the proper elevation to obtain the required surface. The transverse slope controller shall be capable of maintaining the screed at the desired slope within plus or minus 0.1 percent.

The controls shall be capable of working in conjunction with any of the following attachments:

- a. Ski-type device of not less than 30 feet (9.14 m) in length.
- b. Taut stringline (wire) set to grade.
- c. Short ski or shoe.
- d. Laser control.

**401-4.5 ROLLERS.** Rollers of the vibratory, steel wheel, and pneumatic-tired type shall be used. They shall be in good condition, capable of operating at slow speeds to avoid displacement of the bituminous mixture. The number, type, and weight of rollers shall be sufficient to compact the mixture to the required density while it is still in a workable condition.

The use of equipment which causes excessive crushing of the aggregate will not be permitted.

**401-4.6 PREPARATION OF BITUMINOUS MATERIAL.** The bituminous material shall be heated in a manner that will avoid local overheating and provide a continuous supply of the

bituminous material to the mixer at a uniform temperature. The temperature of the bituminous material delivered to the mixer shall be sufficient to provide a suitable viscosity for adequate coating of the aggregate particles, but shall not exceed 325 degrees F (160 degrees C).

**401-4.7 PREPARATION OF MINERAL AGGREGATE.** The aggregate for the mixture shall be heated and dried prior to introduction into the mixer. The maximum temperature and rate of heating shall be such that no damage occurs to the aggregates. The temperature of the aggregate and mineral filler shall not exceed 350 degrees F (175 degrees C) when the asphalt is added. Particular care shall be taken that aggregates high in calcium or magnesium content are not damaged by overheating. The temperature shall not be lower than is required to obtain complete coating and uniform distribution on the aggregate particles and to provide a mixture of satisfactory workability.

**401-4.8 PREPARATION OF BITUMINOUS MIXTURE.** The aggregates and the bituminous material shall be weighed or metered and introduced into the mixer in the amount specified by the job mix formula.

The combined materials shall be mixed until the aggregate obtains a uniform coating of bitumen and is thoroughly distributed throughout the mixture. Wet mixing time shall be the shortest time that will produce a satisfactory mixture, but not less than 25 seconds for batch plants. The wet mixing time for all plants shall be established by the Contractor, based on the procedure for determining the percentage of coated particles described in ASTM D 2489, for each individual plant and for each type of aggregate used. The wet mixing time will be set to achieve 95 percent of coated particles. For continuous mix plants, the minimum mixing time shall be determined by dividing the weight of its contents at operating level by the weight of the mixture delivered per second by the mixer. The moisture content of all bituminous mix upon discharge shall not exceed 0.5 percent.

**401-4.9 PREPARATION OF THE UNDERLYING SURFACE.** Immediately before placing the bituminous mixture, the underlying course shall be cleaned of all dust and debris. A prime coat or tack coat shall be applied in accordance with Item P-602 or P-603, if required by the contract specifications.

**401-4.10 TRANSPORTING, PLACING, AND FINISHING.** The bituminous mixture shall be transported from the mixing plant to the site in vehicles conforming to the requirements of paragraph 401-4.3. Deliveries shall be scheduled so that placing and compacting of mixture is uniform with minimum stopping and starting of the paver. Adequate artificial lighting shall be provided night placements. Hauling over freshly placed material shall not be permitted until the material has been compacted, as specified, and allowed to cool to atmospheric temperature.

The mix shall be placed and compacted at a temperature suitable for obtaining density, surface smoothness, and other specified requirements but not less than 250 degrees F (107 degrees C).

Upon arrival, the mixture shall be placed to the full width by a bituminous paver. It shall be struck off in a uniform layer of such depth that, when the work is completed, it shall have the required thickness and conform to the grade and contour indicated. The speed of the paver shall



be regulated to eliminate pulling and tearing of the bituminous mat. Unless otherwise permitted, placement of the mixture shall begin along the centerline of a crowned section or on the high side of areas with a one-way slope. The mixture shall be placed in consecutive adjacent strips having a minimum width of [ ] feet except where edge lanes require less width to complete the area. The longitudinal joint in one course shall offset the longitudinal joint in the course immediately below by at least 1 foot (30 cm); however, the joint in the surface top course shall be at the centerline of the pavement. Transverse joints in one course shall be offset by at least 10 feet (3 m) from transverse joints in the previous course.

Transverse joints in adjacent lanes shall be offset a minimum of 10 feet (3 m).

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the mixture may be spread and luted by hand tools.

**401-4.11 COMPACTION OF MIXTURE.** After placing, the mixture shall be thoroughly and uniformly compacted by rolling. The surface shall be compacted as soon as possible when the mixture has attained sufficient stability so that the rolling does not cause undue displacement, cracking or shoving. The sequence of rolling operations and the type of rollers used shall be at the discretion of the Contractor.

The speed of the roller shall, at all times, be sufficiently slow to avoid displacement of the hot mixture and be effective in compaction. Any displacement occurring as a result of reversing the direction of the roller, or from any other cause, shall be corrected at once.

Sufficient rollers shall be furnished to handle the output of the plant. Rolling shall continue until the surface is of uniform texture, true to grade and cross section, and the required field density is obtained.

To prevent adhesion of the mixture to the roller, the wheels shall be kept properly moistened (and scrapers used), but excessive water will not be permitted.

In areas not accessible to the roller, the mixture shall be thoroughly compacted with hand tampers.

Any mixture that becomes loose and broken, mixed with dirt, contains check-cracking, or in any way defective shall be removed and replaced with fresh hot mixture and immediately compacted to conform to the surrounding area. This work shall be done at the Contractor's expense. Skin patching shall not be allowed.

**401-4.12 JOINTS.** The formation of all joints shall be made in such a manner as to ensure a continuous bond between the courses and obtain the required density. All joints shall have the same texture as other sections of the course and meet the requirements for smoothness and grade. The roller shall not pass over the unprotected end of the freshly laid mixture except when necessary to form a transverse joint. When necessary to form a transverse joint, it shall be made by means of placing a bulkhead or by tapering the course. The tapered edge shall be cut back to its full depth and width on a straight line to expose a vertical face prior to placing the adjacent

lane. In both methods, all contact surfaces shall be given a tack coat of bituminous material before placing any fresh mixture against the joint.

Longitudinal joints which are irregular, damaged, uncompacted, or otherwise defective shall be cut back to expose a clean, sound surface for the full depth of the course. All contact surfaces shall be given a tack coat of bituminous material prior to placing any fresh mixture against the joint.

## **MATERIAL ACCEPTANCE**

**401-5.1 ACCEPTANCE SAMPLING AND TESTING.** All acceptance sampling and testing necessary to determine conformance with the requirements specified in this section will be performed by the Engineer at no cost to the Contractor. Testing organizations performing these tests shall meet the requirements of ASTM D 3666. All equipment in Contractor furnished laboratories shall be calibrated by the testing organization prior to the start of operations.

**a. Plant-Produced Material.** Plant-produced material shall be tested for stability, flow, and air voids on a lot basis. Sampling shall be from material deposited into trucks at the plant or from trucks at the job site. A lot will consist of:

- one day's production not to exceed 2,000 tons (1 814 000 kg), or
- a half day's production where a day's production is expected to consist of between 2,000 and 4,000 tons (1 814 000 and 3 628 000 kg), or
- similar subdivisions for tonnages over 4,000 tons (3 628 000 kg).

Where more than one plant is simultaneously producing material for the job, the lot sizes shall apply separately for each plant.

**(1) Sampling.** Each lot will consist of four equal sublots. Sufficient material for preparation of test specimens will be sampled by the Engineer on a random basis, in accordance with the procedures contained in ASTM D 3665. One set of laboratory compacted specimens will be prepared for each subplot in accordance with ASTM D 1559, paragraph 4.5, at the number of blows required by paragraph 401-3.2, Table 1. Each set of laboratory compacted specimens will consist of three test portions prepared from the same sample increment.

The sample of bituminous mixture may be put in a covered metal tin and placed in an oven for not less than 30 minutes nor more than 60 minutes to stabilize to compaction temperature. The compaction temperature of the specimens should be as specified in the job mix formula.

**(2) Testing.** Sample specimens shall be tested for stability and flow in accordance with ASTM D 1559, paragraph 5. Air voids will be determined by the Engineer in accordance with ASTM D 3203.

Prior to testing, the bulk specific gravity of each test specimen shall be measured by the Engineer in accordance with ASTM D 2726 using the procedure for laboratory-prepared thoroughly dry specimens, or ASTM D 1188, whichever is applicable, for use in computing air voids and pavement density.

For air voids determination, the theoretical maximum specific gravity of the mixture shall be measured for each subplot in accordance with ASTM D 2041, Type C, D or E container. The value used in the air voids computation for each subplot shall be based on the maximum specific gravity measurement for the subplot.

The stability and flow for each subplot shall be computed by averaging the results of all test specimens representing that subplot.

**(3) Acceptance.** Acceptance of plant produced material for stability, flow, and air voids shall be determined by the Engineer in accordance with the requirements of paragraph 401-5.2b.

**b. Field Placed Material.** Material placed in the field shall be tested for mat and joint density on a lot basis.

**(1) Mat Density.** The lot size shall be the same as that indicated in paragraph 401-5.1a and shall be divided into four equal sublots. One core of finished, compacted materials shall be taken by the Contractor from each subplot. Core locations will be determined by the Engineer on a random basis in accordance with procedures contained in ASTM D 3665. Cores shall not be taken closer than one foot from a transverse or longitudinal joint.

**(2) Joint Density.** The lot size shall be the total length of longitudinal joints constructed by a lot of material as defined in paragraph 401-5.1a. The lot shall be divided into four equal sublots. One core of finished, compacted materials shall be taken by the Contractor from each subplot. Core locations will be determined by the Engineer on a random basis in accordance with procedures contained in ASTM D 3665.

**(3) Sampling.** Samples shall be neatly cut with a core drill or other approved equipment. The minimum diameter of the sample shall be three inches. Samples that are clearly defective, as a result of sampling, shall be discarded and another sample taken. The Contractor shall furnish all tools, labor, and materials for cutting samples and filling the cored pavement. Cored holes shall be filled in a manner acceptable to the Engineer and within one day after sampling.

**(4) Testing.** The bulk specific gravity of each cored sample will be measured by the Engineer in accordance with ASTM D 2726 or ASTM D 1188, whichever is applicable. The percent compaction (density) of each sample will be determined by dividing the bulk specific gravity of each subplot sample by the average bulk specific gravity of all laboratory prepared specimens for the lot, as determined in paragraph 401-5.1a(2).

**(5) Acceptance.** Acceptance of field placed material for mat density will be determined by the Engineer in accordance with the requirements of paragraph 401-5.2c. Acceptance for joint density will be determined in accordance with the requirements of paragraph 401-5.2d.

**c. Partial Lots — Plant-Produced Material.** When operational conditions cause a lot to be terminated before the specified number of tests have been made for the lot, or when the Contractor and Engineer agree in writing to allow overages or other minor tonnage placements to be considered as partial lots, the following procedure will be used to adjust the lot size and the number of tests for the lot.

The last batch produced where production is halted will be sampled, and its properties shall be considered as representative of the particular subplot from which it was taken. Where three sublots are produced, they shall constitute a lot. Where one or two sublots are produced, they shall be incorporated into the next lot, and the total number of sublots shall be used in the acceptance plan calculation, i.e.,  $n = 5$  or  $n = 6$ , for example.

**d. Partial Lots — Field Placed Material.** The lot size for field placed material shall correspond to that of the plant material, except that, in no cases, shall less than three (3) cored samples be obtained, i.e.,  $n = 3$ .

#### **401-5.2 ACCEPTANCE CRITERIA.**

**a. General.** Acceptance will be based on the following characteristics of the bituminous mixture and completed pavement as well as the implementation of the Contractor Quality Control plan and test results:

- (1)** Stability
- (2)** Flow
- (3)** Air voids
- (4)** Mat density
- (5)** Joint density
- (6)** Thickness
- (7)** Smoothness
- (8)** Grade

Stability, flow, and air voids will be evaluated for acceptance in accordance with paragraph 401-5.2b. Mat density will be evaluated for acceptance in accordance with paragraph 401-5.2c. Joint density will be evaluated for acceptance in accordance with paragraph 401-5.2d.

Acceptance for mat density and air voids will be based on the criteria contained in paragraph 401-5.2f(1). Acceptance for stability and flow will be based on the criteria contained in paragraph 401-5.2f(2). Acceptance for joint density will be based on the criteria contained in paragraph 401-5.2f(3). Thickness will be evaluated by the Engineer for compliance in accordance with paragraph 401-5.2f(4). Acceptance for smoothness will be based on the criteria

contained in paragraph 401-5.2f(5). Acceptance for grade will be based on the criteria contained in paragraph 401-5.2f(6).

The Engineer may at any time, notwithstanding previous plant acceptance, reject and require the Contractor to dispose of any batch of bituminous mixture which is rendered unfit for use due to contamination, segregation, incomplete coating of aggregate, or improper mix temperature. Such rejection may be based on only visual inspection or temperature measurements. In the event of such rejection, the Contractor may take a representative sample of the rejected material in the presence of the Engineer, and if it can be demonstrated in the laboratory, in the presence of the Engineer, that such material was erroneously rejected, payment will be made for the material at the contract unit price.

**b. Stability, Flow, Air Voids.** Evaluation for acceptance of each lot of plant-produced material for stability, flow, and air voids shall be based on PWL. The Contractor shall target production quality to achieve 90 PWL or higher.

**c. Mat Density.** Evaluation for acceptance of each lot of in-place pavement for mat density shall be based on PWL. The Contractor shall target production quality to achieve 90 PWL or higher.

**d. Joint Density.** Evaluation for acceptance of each lot of in-place pavement for joint density shall be based on PWL. The Contractor shall target production quality to achieve 90 PWL or higher.

**e. Percentage of Material Within Specification Limits (PWL).** The percentage of material within specification limits (PWL) shall be determined in accordance with procedures specified in Section 110 of the General Provisions. The specification tolerance limits (L) and (U) are contained in Table 5.

**f. Acceptance Criteria.**

**(1) Mat Density and Air Voids.** If the PWL of the lot equals or exceeds 90 percent, the lot shall be acceptable. Acceptance and payment for the lot shall be determined in accordance with paragraph 401-8.1.

**(2) Stability and Flow.** If the PWL of the lot equals or exceeds 90 percent, the lot shall be acceptable. If the PWL is less than 90 percent, the Contractor shall determine the reason and take corrective action. If the PWL is below 80 percent, the Contractor must stop production and make adjustments to the mix.

**(3) Joint Density.** If the PWL of the lot equals or exceeds 90 percent, the lot shall be acceptable. If the PWL is less than 90 percent, the Contractor shall evaluate the method of compacting joints. If the PWL is below 80 percent, the Contractor shall stop production until the reason for poor compaction has been determined.

(4) **Thickness.** Thickness shall be evaluated for compliance by the Engineer to the requirements shown on the plans. Measurements of thickness shall be made by the Engineer using the cores extracted for each subplot for density measurement.

(5) **Smoothness.** The finished surfaces of the pavement shall not vary more than  $\frac{1}{4}$  inch for the surface course. Each lot shall be evaluated with a 12 foot (3.6 m) straightedge. The lot size shall be 2,000 square yards (1 650 square meters). Measurements will be made perpendicular and parallel to the centerline at distances not to exceed 50 feet (15.2 m). When more than 15 percent of all measurements within a lot exceed the specified tolerance, the Contractor shall remove the deficient area and replace with new material. Sufficient material shall be removed to allow at least one inch of asphalt concrete to be placed. Skin patching shall not be permitted. High point may be ground off.

(6) **Grade.** The finished surface of the pavement shall not vary from the gradeline elevations and cross sections shown on the plans by more than  $\frac{1}{2}$  inch (12.70 mm). The finished grade of each lot will be determined by running levels at intervals of 50 feet (15.2 m) or less longitudinally and transversely to determine the elevation of the completed pavement. The lot size shall be 2,000 square yards (1 650 square meters). When more than 15 percent of all the measurements within a lot are outside the specified tolerance, the Contractor shall remove the deficient area and replace with new material. Sufficient material shall be removed to allow at least one inch of asphalt concrete to be placed. Skin patching for correcting low areas shall not be permitted. High points may be ground off.

g. **Outliers.** All individual tests for mat density and air voids shall be checked for outliers (test criterion) in accordance with ASTM E 178, at a significance level of 5 percent. Outliers shall be discarded, and the PWL shall be determined using the remaining test values.

**TABLE 5. MARSHALL ACCEPTANCE LIMITS FOR STABILITY, FLOW, AIR VOIDS, DENSITY**

| TEST PROPERTY                | Pavements Designed for Aircraft Gross Weights of 60,000 Lbs. or more or Tire Pressure Greater than 100 Psi |     |
|------------------------------|------------------------------------------------------------------------------------------------------------|-----|
|                              | 75                                                                                                         |     |
| Number of Blows              | Specification Tolerance                                                                                    |     |
|                              | L                                                                                                          | U   |
| Stability, minimum, pounds   | 1800                                                                                                       | -   |
| Flow, 0.01-inch              | 8                                                                                                          | 16  |
| Air Voids Total Mix, percent | 2.0                                                                                                        | 5.0 |
| Density, percent             | 96.3                                                                                                       | -   |

|                        |      |   |
|------------------------|------|---|
| Joint density, percent | 93.3 | - |
|------------------------|------|---|

**TABLE 6. TABLE FOR ESTIMATING PERCENT OF LOT WITHIN LIMITS (PWL)**

| Percent Within Limits<br>(PWL), $P_L$ , and $P_U$ Positive Values of Q |        |        |        |        |        |        |
|------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|
| n=3                                                                    | n=4    | n=5    | n=6    | n=7    | n=8    |        |
| 99                                                                     | 1.1541 | 1.4700 | 1.6714 | 1.8008 | 1.8888 | 1.9520 |
| 98                                                                     | 1.1524 | 1.4400 | 1.6016 | 1.6982 | 1.7612 | 1.8053 |
| 97                                                                     | 1.1496 | 1.4100 | 1.5427 | 1.6181 | 1.6661 | 1.6993 |
| 96                                                                     | 1.1456 | 1.3800 | 1.4897 | 1.5497 | 1.5871 | 1.6127 |
| 95                                                                     | 1.1405 | 1.3500 | 1.4407 | 1.4887 | 1.5181 | 1.5381 |
| 94                                                                     | 1.1342 | 1.3200 | 1.3946 | 1.4329 | 1.4561 | 1.4716 |
| 93                                                                     | 1.1269 | 1.2900 | 1.3508 | 1.3810 | 1.3991 | 1.4112 |
| 92                                                                     | 1.1184 | 1.2600 | 1.3088 | 1.3323 | 1.3461 | 1.3554 |
| 91                                                                     | 1.1089 | 1.2300 | 1.2683 | 1.2860 | 1.2964 | 1.3032 |
| 90                                                                     | 1.0982 | 1.2000 | 1.2290 | 1.2419 | 1.2492 | 1.2541 |
|                                                                        |        |        |        |        |        |        |
| 89                                                                     | 1.0864 | 1.1700 | 1.1909 | 1.1995 | 1.2043 | 1.2075 |
| 88                                                                     | 1.0736 | 1.1400 | 1.1537 | 1.1587 | 1.1613 | 1.1630 |
| 87                                                                     | 1.0597 | 1.1100 | 1.1173 | 1.1191 | 1.1199 | 1.1204 |
| 86                                                                     | 1.0448 | 1.0800 | 1.0817 | 1.0808 | 1.0800 | 1.0794 |
| 85                                                                     | 1.0288 | 1.0500 | 1.0467 | 1.0435 | 1.0413 | 1.0399 |
| 84                                                                     | 1.0119 | 1.0200 | 1.0124 | 1.0071 | 1.0037 | 1.0015 |
| 83                                                                     | 0.9939 | 0.9900 | 0.9785 | 0.9715 | 0.9672 | 0.9643 |
| 82                                                                     | 0.9749 | 0.9600 | 0.9452 | 0.9367 | 0.9325 | 0.9281 |
| 81                                                                     | 0.9550 | 0.9300 | 0.9123 | 0.9025 | 0.8966 | 0.8928 |
| 80                                                                     | 0.9342 | 0.9000 | 0.8799 | 0.8690 | 0.8625 | 0.8583 |
|                                                                        |        |        |        |        |        |        |
| 79                                                                     | 0.9124 | 0.8700 | 0.8478 | 0.8360 | 0.8291 | 0.8245 |
| 78                                                                     | 0.8897 | 0.8400 | 0.8160 | 0.8036 | 0.7962 | 0.7915 |
| 77                                                                     | 0.8662 | 0.8100 | 0.7846 | 0.7716 | 0.7640 | 0.7590 |
| 76                                                                     | 0.8417 | 0.7800 | 0.7535 | 0.7401 | 0.7322 | 0.7271 |
| 75                                                                     | 0.8165 | 0.7500 | 0.7226 | 0.7089 | 0.7009 | 0.6958 |
| 74                                                                     | 0.7904 | 0.7200 | 0.6921 | 0.6781 | 0.6701 | 0.6649 |
| 73                                                                     | 0.7636 | 0.6900 | 0.6617 | 0.6477 | 0.6396 | 0.6344 |
| 72                                                                     | 0.7630 | 0.6600 | 0.6316 | 0.6176 | 0.6095 | 0.6044 |
| 71                                                                     | 0.7077 | 0.6300 | 0.6016 | 0.5878 | 0.5798 | 0.5747 |
| 70                                                                     | 0.6787 | 0.6000 | 0.5719 | 0.5583 | 0.5504 | 0.5454 |
|                                                                        |        |        |        |        |        |        |
| 69                                                                     | 0.6490 | 0.5700 | 0.5423 | 0.5290 | 0.5213 | 0.5164 |
| 68                                                                     | 0.6187 | 0.5400 | 0.5129 | 0.4999 | 0.4924 | 0.4877 |

|    |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|
| 67 | 0.5878 | 0.5100 | 0.4836 | 0.4710 | 0.4638 | 0.4592 |
| 66 | 0.5563 | 0.4800 | 0.4545 | 0.4424 | 0.4354 | 0.4310 |
| 65 | 0.5242 | 0.4500 | 0.4255 | 0.4139 | 0.4073 | 0.4031 |
| 64 | 0.4916 | 0.4200 | 0.3967 | 0.3856 | 0.3793 | 0.3753 |
| 63 | 0.4586 | 0.3900 | 0.3679 | 0.3575 | 0.3515 | 0.3477 |
| 62 | 0.4251 | 0.3600 | 0.3392 | 0.3295 | 0.3239 | 0.3203 |
| 61 | 0.3911 | 0.3300 | 0.3107 | 0.3016 | 0.2964 | 0.2931 |
| 60 | 0.3568 | 0.3000 | 0.2822 | 0.2738 | 0.2691 | 0.2660 |
| 59 | 0.3222 | 0.2700 | 0.2537 | 0.2461 | 0.2418 | 0.2391 |
| 58 | 0.2872 | 0.2400 | 0.2254 | 0.2186 | 0.2147 | 0.2122 |
| 57 | 0.2519 | 0.2100 | 0.1971 | 0.1911 | 0.1877 | 0.1855 |
| 56 | 0.2164 | 0.1800 | 0.1688 | 0.1636 | 0.1613 | 0.1592 |
| 55 | 0.1806 | 0.1500 | 0.1408 | 0.1363 | 0.1338 | 0.1322 |
| 54 | 0.1447 | 0.1200 | 0.1125 | 0.1090 | 0.1070 | 0.1057 |
| 53 | 0.1087 | 0.0900 | 0.0843 | 0.0817 | 0.0802 | 0.0792 |
| 52 | 0.0725 | 0.0600 | 0.0562 | 0.0544 | 0.0534 | 0.0528 |
| 51 | 0.0363 | 0.0300 | 0.0281 | 0.0272 | 0.0267 | 0.0264 |
| 50 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

A lot is the quantity of material to be controlled and may represent a specified tonnage or a specified number of truckloads. The lot size, to be determined by the Engineer, should, for the most part, depend on the operational capacity of the plant, but shall in no case exceed 2,000 tons (1 814 000 kg) in accordance with paragraph 401-5q.1.

### 401-5.3 RESAMPLING PAVEMENT.

**a. General.** Resampling of a lot of pavement for mat density will be allowed if the Contractor requests, in writing, within 48 hours after receiving the written test results from the Engineer. A retest will consist of all the sampling and testing procedures contained in paragraphs 401-5.1b and 401-5.2c. Only one resampling per lot will be permitted.

(1) A redefined PWL shall be calculated for the resampled lot. The number of tests used to calculate the redefined PWL shall include the initial tests made for that lot plus the retests.

(2) The cost for resampling and retesting shall be borne by the Contractor.

**b. Payment for Resampled Lots.** The redefined PWL for a resampled lot shall be used to calculate the payment for that lot in accordance with Table 7.



**c. Outliers.** If the test within a lot include a very large or a very small value which appears to be outside the normal limits of variation, check for an outlier in accordance with ASTM E 178, at a significance level of 5 percent, to determine if this value should be discarded when computing the PWL.

**401-5.4 LEVELING COURSE.** Any course used for truing and leveling shall meet the requirements of paragraph 401-3.2 and 5.2b, but shall not be subject to the density requirements of paragraph 401-5.2c and 5.2d. The leveling course shall be compacted with the same effort used to achieve density of the test section. The truing and leveling course shall not exceed a nominal thickness of 1-½ inches (37.5 mm).

## **CONTRACTOR QUALITY CONTROL**

**401-6.1 GENERAL.** The Contractor shall establish, provide, and maintain a Quality Control System which will provide reasonable assurance that all materials and completed construction submitted for acceptance conform to contract requirements whether manufactured or processed by the Contractor or procured from sub-contractors or vendors. Although guidelines are established and certain requirements are specified, they are minimum and the Contractor shall assume full responsibility for meeting all requirements.

The Contractor shall be prepared to discuss and present, at the preconstruction conference, his/her understanding of the quality control responsibilities for specific items as included in these specifications.

The Contractor shall provide the Engineer a certification stating that all of the testing equipment to be used is properly calibrated and will meet the specifications applicable for the specified test procedures. As a part of the process for approving the Contractor's plan, the Engineer may require the Contractor's technician to perform testing of samples to demonstrate an acceptable level of performance.

The Contractor shall perform quality control sampling, testing, and inspection during all phases of the work and shall perform them at a rate sufficient to ensure that the work conforms to the contract requirements, and at minimum test frequencies required by paragraph 401.6.3.

**401-6.2 QUALITY CONTROL PLAN.** The Contractor shall provide and maintain a Quality Control Plan (Plan) along with all the personnel, equipment, supplies and facilities necessary to obtain samples, perform and document test, and otherwise ensure the quality of the product.

The Contractor shall describe the Plan in a written document which shall be approved by the Engineer prior to the start of any production or construction. The written Plan shall be submitted to the Engineer for approval at least 10 days prior to the start of the operations.

No partial payment will be made for materials which are subject to specific quality control requirements without an approved Plan.

The Plan may be operated wholly or in part by the Contractor or an independent organization; however, the Plan's administration, including compliance with the Plan and its modification, shall remain the responsibility of the Contractor.

**a. Plan Contents.** The Plan shall be organized to address the following minimum items:

1. Quality control organization chart.
2. Area of responsibility and authority of each individual.
3. Names and qualifications of personnel as required by paragraphs 401-6.2c(1) and (2).
4. A listing of any outside organizations such as testing laboratories that will be employed by the contractor and a description of the services they will provide.
5. A testing plan which list the test required to be performed by the Contractor, the frequency of testing, sampling locations, and the location of the testing facilities.
6. Procedures for ensuring that test are taken in accordance with the testing plan, that they are documented, and that proper corrective actions are taken when necessary.
7. Procedures for ensuring that testing equipment is available, complies with specified standards and has been calibrated against certified standards.
8. Procedures for verifying that tests are taken in accordance with the appropriate ASTM standards.
9. Procedures for submittal of test results to the Engineer on a daily basis.

**b. Plan Elements.** The Plan shall address all elements which affect the quality of the asphalt concrete including:

1. Mix Design
2. Aggregate Grading
3. Quality of Materials
4. Stockpile Management
5. Proportioning
6. Mixing
7. Placing and Finishing

8. Joints

9. Compaction

10. Surface smoothness

**c. Quality Control Organization.** The Plan shall be implemented by the establishment of a separate Quality Control Organization. An organization chart shall be developed to show all quality control personnel and how these personnel integrate with other management, production, and construction functions and personnel.

The organizational chart shall identify all quality control staff by name and function, and shall indicate the total staff required to implement all elements of the quality control program, including inspection and testing functions for different items of work.

If an outside organization or independent testing laboratory is used for implementation of all or part of the Plan, the personnel assigned shall be subject to the qualification requirements of this paragraph. The organization chart shall indicate which personnel are contractor employees and which are provided by an outside organization.

The Quality Control Organization shall consist of the following minimum personnel:

1. Plan Administrator. The Plan Administrator shall be an employee of the Contractor, or a consultant engaged by the Contractor. The Plan Administrator shall have prior quality control experience on a project of comparable size and scope.

In addition, the Plan Administrator shall meet one of the following requirements:

- a. Professional Engineer with one year of airport paving experience acceptable to the Engineer.
- b. Engineer-in-Training with two years of airport paving experience acceptable to the Engineer.
- c. An individual with three years of highway and/or airport paving experience acceptable to the Engineer and with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.
- d. Construction Materials Technician certified at Level III by the National Institute for Certification in Engineering Technologies (NICET).
- e. Highway Materials Technician certified at Level III by NICET.
- f. Highway Construction Technician certified at Level III by NICET.

- g. A NICET certified Engineering Technician in Civil Engineering Technology with 5 years of highway and/or airport paving experience acceptable to the Engineer.

Certification at an equivalent level, by a State or nationally recognized organization will be acceptable in lieu of NICET certification.

The Plan Administrator shall have full authority to institute any and all actions necessary for the successful operation of the Plan to ensure compliance with the specifications. The Plan Administrator shall report directly to a responsible officer in the Contractor's organization. The Administrator may supervise the Plan on more than one project provided that they can be at the job site within one hour after being notified of a problem.

2. Quality Control Technicians. The Contractor shall provide a sufficient number of Quality Control Technicians to adequately implement the Plan. These personnel shall be either engineers, engineering technicians, or experienced craftsmen with qualifications equivalent to NICET Level II or higher in their appropriate field and shall have a minimum of 2 years experience in their area of expertise.

The Quality Control Technicians shall report directly to the Plan Administrator and shall perform the following functions:

- a. Inspection of all plant equipment used in proportioning and mixing to ensure proper calibration and operating condition.
- b. Performance of quality control tests necessary to adjust and control mix proportioning in accordance with the job mix formula.
- c. Inspection of all equipment used in placing, finishing, and compacting material to ensure proper operation condition.
- d. Inspection during construction to ensure placing, joint construction, and compaction is in conformance with the specifications and will produce a finished product that meets specification requirements.
- e. Performance of all quality control testing as required by paragraph 401-6.3, including density monitoring.

The Plan shall detail the criteria to be utilized to correct unsatisfactory production processes and construction practices.

Certification at an equivalent level, by a State or nationally recognized organization will be acceptable in lieu of NICET certification.

**d. Testing Laboratory.** The Plan must provide for a fully equipped asphalt laboratory located at the plant or job site. It shall be available for joint use by the Contractor for quality

control testing and by the Engineer for acceptance testing and must have adequate equipment for the performance of the tests required by these specifications. The Engineer shall have priority in use of the equipment necessary for acceptance testing.

The effective working area of the laboratory shall be a minimum of 150 square feet (14 square meters) with a ceiling height of not less than 7.5 feet (2.3 meters). Lighting shall be adequate to illuminate all working areas. It shall be equipped with heating and air conditioning units to maintain a temperature of 70 degrees F + 5 degrees (21 degrees C + 2.3 degrees C).

Laboratory facilities shall be kept clean and all equipment shall be maintained in proper working condition. The Engineer shall be permitted unrestricted access to inspect the Contractor's laboratory facility and witness quality control activities. The Engineer will advise the Contractor in writing of any noted deficiencies concerning the laboratory facility, equipment, supplies, or testing personnel and procedures. When the deficiencies are serious enough to be adversely affecting test results, the incorporation of the materials into the work shall be suspended immediately and will not be permitted to resume until the deficiencies are satisfactorily corrected.

**e. Sampling.** The plan shall contain a statistically based procedure of random sampling which provides that all materials being produced have an equal chance of being selected for sampling and testing. The Engineer shall be provided the opportunity to witness all sampling.

**f. Noncompliance.** In cases where quality control activities do not comply with either the Contractor's Quality Control Program or the contract provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, the Engineer may:

1. Order the Contractor to replace ineffective or unqualified quality control personnel.
2. Carry out the functions and operations of the Contractor's approved Quality Control Program. Cost incurred by the Owner to operate the Quality Control Program or to otherwise remedy the Contractor's non-compliance with quality related provisions of the Contract shall be deducted from the total amount due the Contractor.

**401-6.3 QUALITY CONTROL TESTING.** The Contractor shall perform all quality control tests necessary to control the production and construction processes applicable to these specifications and as set forth in the approved Quality Control Plan. The testing program shall include, but not necessarily limited to, tested for the control of asphalt content, aggregate gradation, temperatures, aggregate moisture, field compaction, and surface smoothness. The Contractor shall employ random sampling procedures for obtaining test samples.

**a. Asphalt Content.** A minimum of two extraction tests shall be performed per lot in accordance with ASTM D 2172 for determination of asphalt content. The weight of ash portion of the extraction test, as described in ASTM D 2172, shall be determined as part of the first extraction test performed at the beginning of plant production; and as part of every tenth extraction test performed thereafter, for the duration of plant production. The last weight of ash value obtained shall be used in the calculation of the asphalt content for the mixture.

The use of the nuclear method for determining asphalt content in accordance with ASTM D 4125 is permitted, provided that it is calibrated for the specific mix being used.

**b. Gradation.** Aggregate gradations shall be determined a minimum of twice per lot from mechanical analysis of extracted aggregate in accordance with AASHTO T 30 and ASTM C 136 (Dry Sieve). When asphalt content is determined by the nuclear method, aggregate gradation shall be determined from hot bin samples on batch plants, or from the cold feed on drum mix or continuous mix plants, and tested in accordance with ASTM C 136 (dry sieve) using actual batch weights to determine the combined aggregate gradation of the mixture.

**c. Moisture Content of Aggregate.** The moisture content of aggregate used for production shall be determined a minimum of once per lot in accordance with ASTM C 566.

**d. Moisture Content of Mixture.** The moisture content of the mixture shall be determined once per lot in accordance with ASTM D 1461.

**e. Temperatures.** Temperatures shall be checked, at least four times per lot, at necessary locations to determine the temperatures of the dryer, the bitumen in the storage tank, the mixture at the plant, and the mixture at the job site.

**f. In-Place Density Monitoring.** The Contractor shall conduct any necessary testing to ensure that the specified density is being achieved. A nuclear gauge may be used to monitor the pavement density in accordance with ASTM D 2950.

**g. Additional Testing.** Any additional testing that the Contractor deems necessary to control the process may be performed at the Contractor's option.

**h. Monitoring.** The Engineer reserves the right to monitor any or all of the above testing.

**401-6.4 SAMPLING.** When directed by the Engineer, the Contractor shall sample and test any material which appears inconsistent with similar material being sampled, unless such material is voluntarily removed and replaced or deficiencies corrected by the Contractor. All sampling shall be in accordance with standard procedures specified.

**401-6.5 CONTROL CHARTS.** The Contractor shall maintain linear control charts both for individual measurements and range (i.e., difference between highest and lowest measurements) for aggregate gradation and asphalt content.

Control charts shall be posted in a location satisfactory to the Engineer and shall be kept current. As a minimum, the control charts shall identify the project number, the contract item number, the test number, each test parameter, the Action and Suspension Limits applicable to each test parameter, and the Contractor's test results. The Contractor shall use the control charts as part of a process control system for identifying potential problems and assignable causes before they occur. If the Contractor's projected data during production indicates a problem and the

Contractor is not taking satisfactory corrective action, the Engineer may suspend production or acceptance of the material.

**a. Individual Measurements.** Control charts for individual measurements shall be established to maintain process control within tolerance for aggregate gradation and asphalt content. The control charts shall use the job mix formula target values as indicators of central tendency for the following test parameters with associated Action and Suspension Limits:

| <b>CONTROL CHART LIMITS FOR INDIVIDUAL MEASUREMENTS</b> |              |                  |
|---------------------------------------------------------|--------------|------------------|
| Sieve                                                   | Action Limit | Suspension Limit |
| ¾ inch (19.0 mm)                                        | 0%           | 0%               |
| ½ inch (12.5 mm)                                        | +/-6%        | +/-9%            |
| ⅜ inch (9.5 mm)                                         | +/-6%        | +/-9%            |
| No. 4 (4.75 mm)                                         | +/-6%        | +/-9%            |
| No. 16 (1.18 mm)                                        | +/-5%        | +/-7.5%          |
| No. 50 (0.30 mm)                                        | +/-3%        | +/-4.5%          |
| No. 200 (0.075 mm)                                      | +/-2%        | +/-3%            |
| Asphalt Content                                         | +/-0.45%     | +/-0.70%         |

**b. Range.** Control charts for range shall be established to control process variability for the test parameters and Suspension Limits listed below. The range shall be computed for each lot as the difference between the two test results for each control parameter. The Suspension Limits specified below are based on a sample size of  $n = 2$ . Should the Contractor elect to perform more than two tests per lot, the Suspension Limits shall be adjusted by multiplying the Suspension Limit by 1.18 for  $n = 3$  and by 1.27 for  $n = 4$ .

| <b>CONTROL CHART LIMITS BASED ON RANGE<br/>(Based on <math>n = 2</math>)</b> |                  |
|------------------------------------------------------------------------------|------------------|
| Sieve                                                                        | Suspension Limit |
| ½ inch (12.5 mm)                                                             | 11 percent       |
| ⅜ inch (9.5 mm)                                                              | 11 percent       |
| No. 4 (4.75 mm)                                                              | 11 percent       |
| No. 16 (1.18 mm)                                                             | 9 percent        |
| No. 50 (0.30 mm)                                                             | 6 percent        |
| No. 200 (0.075 mm)                                                           | 3.5 percent      |
| Asphalt Content                                                              | 0.8 percent      |

**c. Corrective Action.** The Quality Control Plan shall indicate that appropriate action shall be taken when the process is believed to be out of control. The Plan shall contain sets of rules to gauge when a process is out of control and detail what action will be taken to bring the process into control. As a minimum, a process shall be deemed out of control and production stopped and corrective action taken, if:

(1) One point falls outside the Suspension Limit line for individual measurements or range; or

(2) Two points in a row fall outside the Action Limit line for individual measurements.

**401-6.6 QUALITY CONTROL REPORTS.** The Contractor shall maintain records and shall submit reports of quality control activities daily, in accordance with the Contractor Quality Control Plan.

#### METHOD OF MEASUREMENT

**401 7.1 MEASUREMENT.** Plant mix bituminous concrete pavement shall be measured by the number of tons of bituminous mixture used in the accepted work. Recorded batch weights or truck scale weights will be used to determine the basis for the tonnage.

#### BASIS OF PAYMENT

**401-8.1 PAYMENT.** Payment for an accepted lot of bituminous concrete pavement shall be made at the contract unit price per ton for bituminous mixture adjusted according to paragraph 401-8.1a, subject to the limitation that:

The price shall be compensation for furnishing all materials, for all preparation, mixing, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

**a. Basis of Adjusted Payment.** The pay factor for each individual lot shall be calculated in accordance with Table 6. A pay factor shall be calculated for both mat density and air voids. The lot pay factor shall be the higher of the two values when calculations for both mat density and air voids are 100 percent or higher. The lot pay factor shall be the product of the two values when only one of the calculations for either mat density or air voids is 100 percent or higher. The lot pay factor shall be the lower of the two values when calculations for both mat density and air voids are less than 100 percent.

**TABLE 6. PRICE ADJUSTMENT SCHEDULE <sup>1</sup>**

| <b>Percentage of Material Within<br/>Specification Limits (PWL)</b> | <b>Lot Pay Factor<br/>(Percent of Contract Unit<br/>Price)</b> |
|---------------------------------------------------------------------|----------------------------------------------------------------|
| 96 – 100                                                            | 106                                                            |
| 90 – 95                                                             | PWL + 10                                                       |
| 75 – 89                                                             | 0.5 PWL + 55                                                   |
| 55 – 74                                                             | 1.4PWL – 12                                                    |
| Below 55                                                            | Reject <sup>2</sup>                                            |



<sup>1</sup> ALTHOUGH IT IS THEORETICALLY POSSIBLE TO ACHIEVE A PAY FACTOR OF 106 PERCENT FOR EACH LOT, ACTUAL PAYMENT ABOVE 100 PERCENT SHALL BE SUBJECT TO THE TOTAL PROJECT PAYMENT LIMITATION SPECIFIED IN PARAGRAPH 401-8.1.

<sup>2</sup> The lot shall be removed and replaced. However, the Engineer may decide to allow the rejected lot to remain. In that case, if the Engineer and Contractor agree in writing that the lot shall not be removed, it shall be paid for at 50 percent of the contract unit price and the total project payment shall be reduced by the amount withheld for the rejected lot.

For each lot accepted, the adjusted contract unit price shall be the product of the lot pay factor for the lot and the contract unit price. Payment shall be subject to the total project payment limitation specified in paragraph 401-8.1. Payment in excess of 100 percent for accepted lots of bituminous concrete pavement shall be used to offset payment for accepted lots of bituminous concrete pavement that achieve a lot pay factor less than 100 percent.

**TABLE 6. PRICE ADJUSTMENT SCHEDULE <sup>1</sup>**

| Percentage of Material Within Specification Limits (PWL) | Lot Pay Factor (Percent of Contract Unit Price) |
|----------------------------------------------------------|-------------------------------------------------|
| 93 – 100                                                 | 103                                             |
| 90 – 93                                                  | PWL + 10                                        |
| 70 – 89                                                  | 0.125PWL + 88.75                                |
| 40 – 69                                                  | 0.75PWL + 45                                    |
| Below 40                                                 | Reject <sup>2</sup>                             |

<sup>1</sup> ALTHOUGH IT IS THEORETICALLY POSSIBLE TO ACHIEVE A PAY FACTOR OF 103 PERCENT FOR EACH LOT, ACTUAL PAYMENT ABOVE 100 PERCENT SHALL BE SUBJECT TO THE TOTAL PROJECT PAYMENT LIMITATION SPECIFIED IN PARAGRAPH 401-8.1.

<sup>2</sup> The lot shall be removed and replaced. However, the Engineer may decide to allow the rejected lot to remain. In that case, if the Engineer and Contractor agree in writing that the lot shall not be removed, it shall be paid for at 50 percent of the contract unit price AND THE TOTAL PROJECT PAYMENT LIMITATION SHALL BE REDUCED BY THE AMOUNT WITHHELD FOR THE REJECTED LOT.

**b. Payment.** Payment will be made under:

Item P-401-8.1a      Bituminous Surface Course—per ton

## TESTING REQUIREMENTS

|             |                                                                                                 |
|-------------|-------------------------------------------------------------------------------------------------|
| ASTM C 29   | Unit Weight of Aggregate                                                                        |
| ASTM C 88   | Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate                           |
| ASTM C 117  | Test Method for Materials Finer than 75 $\mu$ m (No.200) Sieve in Mineral Aggregates by Washing |
| ASTM C 131  | Resistance to Abrasion of Small Size Coarse Aggregate by Use of the Los Angeles Machine         |
| ASTM C 136  | Sieve or Screen Analysis of Fine and Coarse Aggregates                                          |
| ASTM C 183  | Sampling of Hydraulic Cement                                                                    |
| ASTM C 566  | Total Moisture Content of Aggregate by Drying                                                   |
| ASTM D 75   | Sampling Aggregates                                                                             |
| ASTM D 995  | Requirements for Mixing Plants for Hot-Mixed Hot-Laid Bituminous Paving Mixtures                |
| ASTM D 1188 | Bulk Specific Gravity of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens          |
| ASTM D 1461 | Moisture or Volatile Distillates in Bituminous Paving Mixtures                                  |
| ASTM D 1559 | Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus                      |
| ASTM D 2041 | Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures                  |
| ASTM D 2172 | Quantitative Extraction of Bitumen from Bituminous Paving Mixtures                              |
| ASTM D 2419 | Sand Equivalent Value of Soils and Fine Aggregate                                               |
| ASTM D 2489 | Degree of Particle Coating of Bituminous-Aggregate Mixtures                                     |
| ASTM D 2726 | Bulk Specific Gravity of Compacted Bituminous Mixtures Using Saturated Surface-Dry Specimens    |
| ASTM D 2950 | Density of Bituminous Concrete in Place by Nuclear Methods                                      |

|                                             |                                                                          |
|---------------------------------------------|--------------------------------------------------------------------------|
| ASTM D 3203                                 | Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures |
| ASTM D 3665                                 | Random Sampling of Paving Materials                                      |
| ASTM D 3666                                 | Inspection and Testing Agencies for Bituminous Paving Materials          |
| ASTM D 4125                                 | Asphalt Content of Bituminous Mixtures by the Nuclear Method             |
| ASTM D 4318                                 | Liquid Limit, Plastic Limit, and Plasticity Index of Soils               |
| ASTM D 4791                                 | Flat or Elongated Particles in Coarse Aggregate                          |
| ASTM D 4867                                 | Effect of Moisture on Asphalt Concrete Paving Mixtures                   |
| ASTM E 178                                  | Practice for Dealing with Outlying Observations                          |
| AASHTO T 30                                 | Mechanical Analysis of Extracted Aggregate                               |
| The Asphalt Institute's Manual No. 2 (MS-2) | Mix Design Methods for Asphalt Concrete                                  |
| The Asphalt Institute's Manual No. 2 (MS-2) | Hot-Mix Recycling                                                        |

### **MATERIAL REQUIREMENTS**

|             |                                                                  |
|-------------|------------------------------------------------------------------|
| ASTM D 242  | Mineral Filler for Bituminous Paving Mixtures                    |
| ASTM D 946  | Asphalt Cement for Use in Pavement Construction                  |
| ASTM D 3381 | Viscosity-Graded Asphalt Cement for Use in Pavement Construction |
| ASTM D 4552 | Classifying Hot-Mix Recycling Agents                             |

END ITEM P-401

## PART VII – MISCELLANEOUS

### ITEM P-602 BITUMINOUS PRIME COAT

#### DESCRIPTION

**602-1.1** This item shall consist of an application of bituminous material on the prepared base course in accordance with these specifications and in reasonably close conformity to the lines shown on the plans.

#### MATERIALS

**602-2.1 BITUMINOUS MATERIAL.** The types, grades, controlling specifications, and application temperatures for the bituminous materials are given in Table 1. The Engineer shall designate the specific material to be used.

**TABLE 1. BITUMINOUS MATERIAL**

| Type and Grade     | Specification | Application<br>Temperatures \1\ |        |
|--------------------|---------------|---------------------------------|--------|
|                    |               | Deg. F                          | Deg. C |
| Emulsified Asphalt |               |                                 |        |
| SS-1, SS-1h        | ASTM D 977    | 70-160                          | 20-70  |
| MS-2, HFMS-1       | ASTM D 977    | 70-160                          | 20-70  |
| CSS-1, CSS-1h      | ASTM D 2397   | 70-160                          | 20-70  |
| CMS-2              | ASTM D 2397   | 70-160                          | 20-70  |
| Cutback Asphalt    |               |                                 |        |
| RC-30              | ASTM D 2028   | 80+                             | 30+    |
| RC-70              | ASTM D 2028   | 120+                            | 50+    |
| RC-250             | ASTM D 2028   | 165+                            | 75+    |

\1\ The maximum temperature for cutback asphalt shall be that at which fogging occurs.

#### CONSTRUCTION METHODS

**602-3.1 WEATHER LIMITATIONS.** The prime coat shall be applied only when the existing surface is dry or contains sufficient moisture to get uniform distribution of the bituminous material, when the atmospheric temperature is above 60°F (15°C), and when the weather is not foggy or rainy. The temperature requirements may be waived, but only when so directed by the Engineer.

**602-3.2 EQUIPMENT.** The equipment used by the Contractor shall include a self-powered pressure bituminous material distributor and equipment for heating bituminous material.

The distributor shall be designed, equipped, maintained, and operated so that bituminous material at even heat may be applied uniformly on variable widths of surface at the specified rate. The allowable variation from the specified rate shall not exceed 10 percent. Distributor equipment shall include a tachometer, pressure gages, volume-measuring devices or a calibrated tank, and a thermometer for measuring temperatures of tank contents. The distributor shall be self-powered and shall be equipped with a power unit for the pump and full circulation spray bars adjustable laterally and vertically.

If the distributor is not equipped with an operable quick shut off valve, the prime operations shall be started and stopped on building power. The Contractor shall remove blotting sand prior to asphalt concrete lay down operations at no additional expense to the owner.

A power broom and/or blower shall be provided for any required cleaning of the surface to be treated.

**602-3.3 APPLICATION OF BITUMINOUS MATERIAL.** Immediately before applying the prime coat, the full width of the surface to be primed shall be swept with a power broom to remove all loose dirt and other objectionable material.

The bituminous material including solvent shall be uniformly applied with a bituminous distributor at the rate of 0.25 to 0.50 gallons per square yard (1.20 to 2.40 liters per square meter) depending on the base course surface texture. The type of bituminous material and application rate shall be approved by the Engineer prior to application.

Following the application, the primed surface shall be allowed to dry not less than 48 hours without being disturbed or for such additional time as may be necessary to permit the drying out of the prime coat until it will not be picked up by traffic or equipment. This period shall be determined by the Engineer. The surface shall then be maintained by the Contractor until the surfacing has been placed. Suitable precautions shall be taken by the Contractor to protect the primed surface against damage during this interval, including supplying and spreading any sand necessary to blot up excess bituminous material.

**602-3.4 BITUMINOUS MATERIAL CONTRACTOR'S RESPONSIBILITY.** Samples of the bituminous materials that the Contractor proposes to use, together with a statement as to their source and character, must be submitted and approved before use of such material begins. The Contractor shall require the manufacturer or producer of the bituminous materials to furnish material subject to this and all other pertinent requirements of the contract. Only satisfactory materials, so demonstrated by service tests, shall be acceptable.

The Contractor shall furnish vendor's certified test reports for each carload, or equivalent, of bituminous material shipped to the project. The test reports shall contain all the data required by the applicable specification. If the Contractor applies the prime material prior to receipt of the tests reports, payment for the material shall be withheld until they are received. If the material does not pass the specifications it shall be replaced at the contractor's expense. The report shall be delivered to the Engineer before permission is granted for use of the material. The furnishing of the vendor's certified test report for the bituminous material shall not be interpreted as basis

for final acceptance. All such test reports shall be subject to verification by testing samples of materials received for use on the project.

**602-3.5 FREIGHT AND WEIGH BILLS.** Before the final estimate is allowed, the Contractor shall file with the Engineer receipted bills when railroad shipments are made, and certified weigh bills when materials are received in any other manner, of the bituminous materials actually used in the construction covered by the contract. The Contractor shall not remove bituminous material from the tank car or storage tank until the initial outage and temperature measurements have been taken by the Engineer, nor shall the car or tank be released until the final outage has been taken by the Engineer.

Copies of freight bills and weigh bills shall be furnished to the Engineer during the progress of the work.

#### METHOD OF MEASUREMENT

**602-4.1.** The bituminous material for prime coat shall be measured by the gallon. Volume shall be corrected to the volume at 60°F (15°C) in accordance with ASTM D 1250 for cutback asphalt, and Table IV 3 of The Asphalt Institute's Manual MS 6 for emulsified asphalt.

#### BASIS OF PAYMENT

**602-5.1** Payment shall be made at the contract unit price per gallon for bituminous prime coat. This price shall be full compensation for furnishing all materials and for all preparation, delivering, and applying the materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

|            |                                  |
|------------|----------------------------------|
| Item P-602 | Bituminous Prime Coat—per gallon |
|------------|----------------------------------|

#### MATERIAL REQUIREMENTS

|             |                                     |
|-------------|-------------------------------------|
| ASTM D 977  | Emulsified Asphalt                  |
| ASTM D 2028 | Cutback Asphalt (Rapid Curing Type) |
| ASTM D 2397 | Cationic Emulsified Asphalt         |

#### TESTING REQUIREMENTS

|                                                |                                                                                                          |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| ASTM D 1250                                    | Petroleum Measurement Tables                                                                             |
| Asphalt Institute<br>Manual MS-6<br>Table IV-3 | Asphalt Pocketbook of Useful Information (Temperature-<br>Volume Corrections<br>for Emulsified Asphalts) |

END ITEM P-602

## ITEM P-603: BITUMINOUS TACK COAT

### DESCRIPTION

**603-101** This item shall consist of preparing and treating a bituminous or concrete surface with bituminous material in accordance with these specifications and in reasonably close conformity to the lines show on the plans.

### MATERIALS

**603-2.1 BITUMINOUS MATERIALS.** The bituminous material shall be either cutback asphalt, emulsified asphalt, or tar and shall conform to the requirements of Table 1. The type, grade, controlling specification, and application temperature of bituminous material to be used shall be specified by the Engineer.

**TABLE 1. BITUMINOUS MATERIAL**

|                    |               | Application Temperature |        |
|--------------------|---------------|-------------------------|--------|
| Type and Grade     | Specification | Deg. F                  | Deg. C |
| Emulsified Asphalt |               |                         |        |
| SS-1, SS-1h        | ASTM D 977    | 75-130                  | 25-55  |
| CSS-1, CSS-1h      | ASTM D 2397   | 75-130                  | 25-55  |
| Cutback Asphalt    |               |                         |        |
| RC-70              | ASTM D 2028   | 120-160                 | 50-70  |
| Tar                |               |                         |        |
| RTCB 5, RTCB 6     | AASHTO M 52   | 60-120                  | 15-50  |

### CONSTRUCTION METHODS

**603-3.1 WEATHER LIMITATIONS.** The tack coat shall be applied only when the existing surface is dry and the atmospheric temperature is above 60 F (15 C). The temperature requirements may be waived, but only when so directed by the Engineer.

**603-3.2 EQUIPMENT.** The Contractor shall provide equipment for heating and applying the bituminous material.

The distributor shall be designed, equipped, maintained, and operated so that bituminous material at even heat may be applied uniformly on variable widths of surface at the specified

rate. The allowable variation from the specified rate shall not exceed 10 percent. Distributor equipment shall include a tachometer, pressure gages, volume-measuring devices or a calibrated tank, and a thermometer for measuring temperatures of tank contents. The distributor shall be self-powered and shall be equipped with a power unit for the pump and full circulation spray bars adjustable laterally and vertically.

A power broom and/or blower shall be provided for any required cleaning of the surface to be treated.

**603-3.3 APPLICATION OF BITUMINOUS MATERIAL.** Immediately before applying the tack coat, the full width of surface to be treated shall be swept with a power broom and/or airblast to remove all loose dirt and other objectionable material.

Emulsified asphalt shall be diluted by the addition of water when directed by the Engineer and shall be applied a sufficient time in advance of the paver to ensure that all water has evaporated before any of the overlying mixture is placed on the tacked surface.

The bituminous material including vehicle or solvent shall be uniformly applied with a bituminous distributor at the rate of 0.05 to 0.15 gallons per square yard (0.24 to 0.72 liters per square meter) depending on the condition of the existing surface. The type of bituminous material and application rate shall be approved by the Engineer prior to application.

Following the application, the surface shall be allowed to cure without being disturbed for such period of time as may be necessary to permit drying out and setting of the tack coat. This period shall be determined by the Engineer. The surface shall then be maintained by the Contractor until the next course has been placed. Suitable precautions shall be taken by the Contractor to protect the surface against damage during this interval.

**603-3.4 BITUMINOUS MATERIAL-CONTRACTOR'S RESPONSIBILITY.** Samples of the bituminous material that the Contractor proposes to use, together with a statement as to its source and character, must be submitted and approved before use of such material begins. The Contractor shall require the manufacturer or producer of the bituminous material to furnish material subject to this and all other pertinent requirements of the contract. Only satisfactory materials so demonstrated by service tests, shall be acceptable.

The Contractor shall furnish the vendor's certified test reports for each carload, or equivalent, of bituminous material shipped to the project. The report shall be delivered to the Engineer before permission is granted for use of the material. The furnishing of the vendor's certified test report for the bituminous material shall not be interpreted as a basis for final acceptance. All such test reports shall be subject to verification by testing samples of material received for use on the project.

**603-3.5 FREIGHT AND WEIGH BILLS.** Before the final estimate is allowed, the Contractor shall file with the Engineer receipted bills when railroad shipments are made, and certified weight bills when materials are received in any other manner, of the bituminous materials actually used in the construction covered by the contract. The Contractor shall not remove



bituminous material from the tank car or storage tank until the initial outage and temperature measurements have been taken by the Engineer, nor shall the car or tank be released until the final outage has been taken by the Engineer. Copies of freight bills and weigh bills shall be furnished to the Engineer during the progress of the work.

#### METHOD OF MEASUREMENT

- 603-4.1** The bituminous material for tack coat shall be measured by the gallon. Volume shall be corrected to the volume at 60°F (15°C) in accordance with ASTM D 1250 for cutback asphalt, ASTM D 633 for tar, and Table
- 603-4.2** IV-3 of The Asphalt Institute's Manual MS-6 for emulsified asphalt. Water added to emulsified asphalt will not be measured for payment.

#### BASIS OF PAYMENT

**603.5-1** Payment shall be made at the contract unit price per gallon of bituminous material. This price shall be full compensation for furnishing all materials, for all preparation, delivery, and application of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

|            |                                 |
|------------|---------------------------------|
| Item P-603 | Bituminous Tack Coat—per gallon |
|------------|---------------------------------|

#### MATERIAL REQUIREMENTS

|                      |                                                                                       |
|----------------------|---------------------------------------------------------------------------------------|
| ASTM D 633           | Volume Correction Table for Road Tar                                                  |
| ASTM D 977           | Emulsified Asphalt                                                                    |
| ASTM D 1250          | Petroleum Measurement Tables                                                          |
| ASTM D 2028          | Liquid Asphalt (Rapid-Curing Type)                                                    |
| ASTM D 2397          | Cationic Emulsified Asphalt                                                           |
| AASHTO M 52          | Tar for Use in Road Construction                                                      |
| Asphalt<br>Institute | Temperature-Volume Corrections for Emulsified<br>Asphalts Manual MS-6      Table IV-3 |

END ITEM P-603

## ITEM P-610 STRUCTURAL PORTLAND CEMENT CONCRETE

### DESCRIPTION

**610-1.1** This item shall consist of **reinforced** structural portland cement concrete, prepared and constructed in accordance with these specifications, at the locations and of the form and dimensions shown on the plans.

### MATERIALS

**610-2.1 GENERAL.** Only approved materials, conforming to the requirements of these specifications, shall be used in the work. They may be subjected to inspection and tests at any time during the progress of their preparation or use. The source of supply of each of the materials shall be approved by the Engineer before delivery or use is started. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be stored and handled to insure the preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed therein.

In no case shall the use of pit-run or naturally mixed aggregates be permitted. Naturally mixed aggregate shall be screened and washed, and all fine and coarse aggregates shall be stored separately and kept clean. The mixing of different kinds of aggregates from different sources in one storage pile or alternating batches of different aggregates will not be permitted.

Aggregates shall be tested for deleterious reactivity with alkalies in the cement that may cause excessive expansion of the concrete. Acceptance of aggregates shall be based upon satisfactory evidence furnished by the Contractor that the aggregates, combined with other mixture constituents, do not produce excessive expansion in the concrete. This evidence shall include service records of concrete of comparable properties under similar conditions or exposure and certified records of tests by a testing laboratory that meets the requirements of ASTM C 1077. Tests shall be made in accordance with ASTM C 1260. Test specimens shall be produced using all components (e.g. coarse aggregate, fine aggregate, cement and fly ash...) to be included in the produced concrete. If the mean expansion of the test specimens, tested in accordance with ASTM C 1260, does not exceed 0.10 % at 16 days from casting the aggregates shall be accepted. If the mean expansion at 16 days is greater than 0.10% but less than 0.15%, the aggregate may be accepted based upon satisfactory service records and acceptance of the aggregate by a State Highway Department specifically addressing Alkali-Silica Reactivity. If the expansion is greater than 0.15%, the aggregate shall not be accepted for use.

**610-2.2 COARSE AGGREGATE.** The coarse aggregate for concrete shall meet the requirements of ASTM C 33. Crushed stone aggregate shall have a durability factor, as determined by ASTM C 666, greater than or equal to 95. The Engineer may consider and reserve final approval of other State classification procedures addressing aggregate durability.

Coarse aggregate shall be well graded from coarse to fine and shall meet one of the gradations shown in Table 1, using ASTM C 136.

**610-2.3 FINE AGGREGATE.** The fine aggregate for concrete shall meet the requirements of ASTM C 33.

The fine aggregate shall be well graded from fine to coarse and shall meet the requirements of Table 2 when tested in accordance with ASTM C 136:

**TABLE 1. GRADATION FOR COARSE AGGREGATE**

| Sieve Designation (square openings) | Percentage by Weight Passing Sieves |        |        |        |       |       |      |
|-------------------------------------|-------------------------------------|--------|--------|--------|-------|-------|------|
|                                     | 2"                                  | 1-1/2" | 1"     | 3/4"   | 1/2"  | 3/8"  | No.4 |
| No. 4 to 3/4 in. (4.75-19.0 mm)     |                                     |        | 100    | 90-100 |       | 20-55 | 0-10 |
| No. 4 to 1 in. (4.75-25.0 mm)       |                                     | 100    | 90-100 |        | 25-60 |       | 0-10 |
| No. 4 to 1-1/2 in. (4.75-38.1 mm)   | 100                                 | 95-100 |        | 35-70  |       | 10-30 | 0-5  |

**TABLE 2. GRADATION FOR FINE AGGREGATE**

| Sieve Designation (square openings) | Percentage by Weight Passing Sieves |
|-------------------------------------|-------------------------------------|
| 3/8 inch (9.5 mm)                   | 100                                 |
| No. 4 (4.75 mm)                     | 95-100                              |
| No. 16 (1.18 mm)                    | 45-80                               |
| No. 30 (0.60 mm)                    | 25-55                               |
| No. 50 (0.30 mm)                    | 10-30                               |
| No. 100 (0.15 mm)                   | 2-10                                |

Blending will be permitted, if necessary, in order to meet the gradation requirements for fine aggregate. Fine aggregate deficient in the percentage of material passing the No. 50 mesh sieve may be accepted, provided that such deficiency does not exceed 5% and is remedied by the addition of pozzolanic or cementitious materials other than portland cement, as specified in 610-2.6 on admixtures, in sufficient quantity to produce the required workability as approved by the Engineer.

#### **610-2.4 CEMENT.**

The Contractor shall furnish vendors' certified test reports for each carload, or equivalent, of cement shipped to the project. The report shall be delivered to the Engineer before permission to use the cement is granted. All such test reports shall be subject to verification by testing sample materials received for use on the project.

**610-2.5 WATER.** The water used in concrete shall be free from sewage, oil, acid, strong alkalis, vegetable matter, and clay and loam. If the water is of questionable quality, it shall be tested in accordance with AASHTO T 26.

**610-2.6 ADMIXTURES.** The use of any material added to the concrete mix shall be approved by the Engineer. Before approval of any material, the Contractor shall be required to submit the results of complete physical and chemical analyses made by an acceptable testing laboratory. Subsequent tests shall be made of samples taken by the Engineer from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

Pozzolanic admixtures shall be fly ash or raw or calcined natural pozzolons meeting the requirements of ASTM C 618.

Air-entraining admixtures shall meet the requirements of ASTM C 260. Air-entraining admixtures shall be added at the mixer in the amount necessary to produce the specified air content.

Water-reducing, set-controlling admixtures shall meet the requirements of ASTM C 494, Type A, water-reducing or Type D, water-reducing and retarding. Water-reducing admixtures shall be added at the mixer separately from air-entraining admixtures in accordance with the manufacturer's printed instructions.

**610-2.7 PREMOLDED JOINT MATERIAL.** Premolded joint material for expansion joints shall meet the requirements of ASTM D 1751.

**610-2.8 JOINT FILLER.** The filler for joints shall meet the requirements of Item P-605, unless otherwise specified in the proposal.

**610-2.9 STEEL REINFORCEMENT.** Reinforcing shall consist of deformed bars..

|                                     |                            |
|-------------------------------------|----------------------------|
| <b>Welded Steel Wire Fabric</b>     | <b>ASTM A 185</b>          |
| <b>Welded Deformed Steel Fabric</b> | <b>ASTM A 497</b>          |
| <b>Bar Mats</b>                     | <b>ASTM A 184 or A 704</b> |

**610-2.10 COVER MATERIALS FOR CURING.** Curing materials shall conform to one of the following specifications:

|                                      |            |
|--------------------------------------|------------|
| Waterproof paper for curing concrete | ASTM C 171 |
|--------------------------------------|------------|

|                                                       |                    |
|-------------------------------------------------------|--------------------|
| Polyethylene Sheeting for Curing Concrete             | ASTM C 171         |
| Liquid Membrane-Forming Compounds for Curing Concrete | ASTM C 309, Type 2 |

## CONSTRUCTION METHODS

**610-3.1 GENERAL.** The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified herein. All machinery and equipment owned or controlled by the Contractor, which he proposes to use on the work, shall be of sufficient size to meet the requirements of the work, and shall be such as to produce satisfactory work; all work shall be subject to the inspection and approval of the Engineer.

**610-3.2 CONCRETE COMPOSITION.** The concrete shall develop a compressive strength of **4200 psi** in 28 days as determined by test cylinders made in accordance with ASTM C 31 and tested in accordance with ASTM C 39. The concrete shall contain not less than 470 pounds of cement per cubic yard (280 kg per cubic meter). The concrete shall contain 5 percent of entrained air, plus or minus 1 percent, as determined by ASTM C 231 and shall have a slump of not more than 4 inches (10 cm) as determined by ASTM C 143.

**610-3.3 ACCEPTANCE SAMPLING AND TESTING.** Concrete for each structure will be accepted on the basis of the compressive strength specified in paragraph 3.2. The concrete shall be sampled in accordance with ASTM C 172. Compressive strength specimens shall be made in accordance with ASTM C 31 and tested in accordance with ASTM C 39.

Concrete cylindrical test specimens shall be made in accordance with ASTM C 31 and tested in accordance with ASTM C 39. The Contractor shall cure and store the test specimens under such conditions as directed. The Engineer will make the actual tests on the specimens at no expense to the contractor.

**610-3.4 PROPORTIONING AND MEASURING DEVICES.** When package cement is used, the quantity for each batch shall be equal to one or more whole sacks of cement. The aggregates shall be measured separately by weight. If aggregates are delivered to the mixer in batch trucks, the exact amount for each mixer charge shall be contained in each batch compartment. Weighing boxes or hoppers shall be approved by the Engineer and shall provide means of regulating the flow of aggregates into the batch box so that the required and exact weight of aggregates can be readily obtained.

**610-3.5 CONSISTENCY.** The consistency of the concrete shall be checked by the slump test specified in ASTM C 143.

**610-3.6 MIXING.** Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C 94.

**610-3.7 MIXING CONDITIONS.** The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40°F (4°C) without permission of the Engineer. If permission is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50°F (10°C) nor more than 100°F (38°C). The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his/her expense.

Retempering of concrete by adding water or any other material shall not be permitted.

The delivery of concrete to the job shall be in such a manner that batches of concrete will be deposited at uninterrupted intervals.

**610-3.8 FORMS.** Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the Engineer. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as designed on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The Contractor shall bear responsibility for their adequacy. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes.

The internal ties shall be arranged so that, when the forms are removed, no metal will show in the concrete surface or discolor the surface when exposed to weathering. All forms shall be wetted with water or with a non-staining mineral oil, which shall be applied shortly before the concrete is placed. Forms shall be constructed so that they can be removed without injuring the concrete or concrete surface. The forms shall not be removed before the expiration of at least 30 hours from vertical faces, walls, slender columns, and similar structures; forms supported by falsework under slabs, beams, girders, arches, and similar construction shall not be removed until tests indicate that at least 60% of the design strength of the concrete has developed.

**610-3.9 PLACING REINFORCEMENT.** All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concreting. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

**610-3.10 EMBEDDED ITEMS.** Before placing concrete, any items that are to be embedded shall be firmly and securely fastened in place as indicated. All such items shall be clean and free from coating, rust, scale, oil, or any foreign matter. The embedding of wood shall be avoided. The concrete shall be spaded and consolidated around and against embedded items.

**610-3.11 PLACING CONCRETE.** All concrete shall be placed during daylight, unless otherwise approved. The concrete shall not be placed until the depth and character of foundation, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved. Concrete shall be placed as soon as practical after mixing and in no case later than 1 hour after water has been added to the mix. The method and manner of placing shall be

such to avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. Dropping the concrete a distance of more than 5 feet (1.5 m), or depositing a large quantity at one point, will not be permitted. Concrete shall be placed upon clean, damp surfaces, free from running water, or upon properly consolidated soil.

The concrete shall be compacted with suitable mechanical vibrators operating within the concrete. When necessary, vibrating shall be supplemented by hand spading with suitable tools to assure proper and adequate compaction. Vibrators shall be manipulated so as to work the concrete thoroughly around the reinforcement and embedded fixtures and into corners and angles of the forms. The vibration at any joint shall be of sufficient duration to accomplish compaction but shall not be prolonged to the point where segregation occurs. Concrete deposited under water shall be carefully placed in a compact mass in its final position by means of a tremie, a closed bottom dump bucket, or other approved method and shall not be disturbed after being deposited.

**610-3.12 CONSTRUCTION JOINTS.** When the placing of concrete is suspended, necessary provisions shall be made for joining future work before the placed concrete takes its initial set. For the proper bonding of old and new concrete, such provisions shall be made for grooves, steps, keys, dovetails, reinforcing bars or other devices as may be prescribed. The work shall be arranged so that a section begun on any day shall be finished during daylight of the same day. Before depositing new concrete on or against concrete that has hardened, the surface of the hardened concrete shall be cleaned by a heavy steel broom, roughened slightly, wetted, and covered with a neat coating of cement paste or grout.

**610-3.13 EXPANSION JOINTS.** Expansion joints shall be constructed at such points and of such dimensions as may be indicated on the drawings. The premolded filler shall be cut to the same shape as that of the surfaces being joined. The filler shall be fixed firmly against the surface of the concrete already in place in such manner that it will not be displaced when concrete is deposited against it.

**610-3.14 DEFECTIVE WORK.** Any defective work discovered after the forms have been removed shall be immediately removed and replaced. If any dimensions are deficient, or if the surface of the concrete is bulged, uneven, or shows honeycomb, which in the opinion of the Engineer cannot be repaired satisfactorily, the entire section shall be removed and replaced at the expense of the Contractor.

**610-3.15 SURFACE FINISH.** All exposed concrete surfaces shall be true, smooth, and free from open or rough spaces, depressions, or projections. The concrete in horizontal plane surfaces shall be brought flush with the finished top surface at the proper elevation and shall be struck-off with a straightedge and floated. Mortar finishing shall not be permitted, nor shall dry cement or sand-cement mortar be spread over the concrete during the finishing of horizontal plane surfaces.

When directed, the surface finish of exposed concrete shall be a rubbed finish. If forms can be removed while the concrete is still green, the surface shall be pointed and wetted and then rubbed

with a wooden float until all irregularities are removed. If the concrete has hardened before being rubbed, a carborundum stone shall be used to finish the surface. When approved, the finishing can be done with a rubbing machine.

**610-3.16 CURING AND PROTECTION.** All concrete shall be properly cured and protected by the Contractor. The work shall be protected from the elements, flowing water, and from defacement of any nature during the building operations. The concrete shall be cured as soon as it has sufficiently hardened by covering with an approved material. Water-absorptive coverings shall be thoroughly saturated when placed and kept saturated for a period of at least 3 days. All curing mats or blankets shall be sufficiently weighted or tied down to keep the concrete surface covered and to prevent the surface from being exposed to currents of air. Where wooden forms are used, they shall be kept wet at all times until removed to prevent the opening of joints and drying out of the concrete. Traffic shall not be allowed on concrete surfaces for 7 days after the concrete has been placed.

**610-3.17 DRAINS OR DUCTS.** Drainage pipes, conduits, and ducts that are to be encased in concrete shall be installed by the Contractor before the concrete is placed. The pipe shall be held rigidly so that it will not be displaced or moved during the placing of the concrete.

**610-3.18 COLD WEATHER PROTECTION.** When concrete is placed at temperatures below 40°F (4°C), the Contractor shall provide satisfactory methods and means to protect the mix from injury by freezing. The aggregates, or water, or both, shall be heated in order to place the concrete at temperatures between 50°F and 100°F (10°C and 38°C).

Calcium chloride may be incorporated in the mixing water when directed by the Engineer. Not more than 2 pounds (908 grams) of Type 1 nor more than 1.6 pounds (726 grams) of Type 2 shall be added per bag of cement. After the concrete has been placed, the Contractor shall provide sufficient protection such as cover, canvas, framework, heating apparatus, etc., to enclose and protect the structure and maintain the temperature of the mix at not less than 50°F (10°C) until at least 60% of the designed strength has been attained.

**610-3.19 FILLING JOINTS.** All joints that require filling shall be thoroughly cleaned, and any excess mortar or concrete shall be cut out with proper tools. Joint filling shall not be started until after final curing and shall be done only when the concrete is completely dry. The cleaning and filling shall be carefully done with proper equipment and in a manner to obtain a neat looking joint free from excess filler.

## **METHOD OF MEASUREMENT**

**610-4.1** No separate measurement for payment will be made other than core measurements for determining thickness within tolerance specified.



## **BASIS OF PAYMENT**

**610-5.1** No separate payment will be made for P-610 Structural Portland Cement Concrete. Payment shall be full compensation for all labor, materials, tools, equipment and incidentals required to complete the work as specified herein and on the drawings.

## **TESTING REQUIREMENTS**

- ASTM C 31 Making and Curing Test Specimens in the Field
- ASTM C 39 Compressive Strength of Cylindrical Concrete Specimens
- ASTM C 136 Sieve Analysis of Fine and Coarse Aggregates
- ASTM C 138 Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
- ASTM C 143 Slump of Hydraulic Cement Concrete
- ASTM C 231 Air Content of Freshly Mixed Concrete by the Pressure Method
- ASTM C 666 Resistance of Concrete to Rapid Freezing and Thawing
- ASTM C 1077 Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation
- ASTM C 1260 Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)
- ASTM A 184 Specification for Fabricated Deformed Steel Bar or Rod Mats for Concrete Reinforcement
- ASTM A 185 Steel Welded Wire Fabric, Plain, for Concrete Reinforcement
- ASTM A 497 Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement
- ASTM A 615 Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
- ASTM A 704 Welded Steel Plain Bars or Rod Mats for Concrete Reinforcement
- ASTM C 33 Concrete Aggregates
- ASTM C 94 Ready-Mixed Concrete
- ASTM C 150 Portland Cement
- ASTM C 171 Sheet Materials for Curing Concrete

ASTM C 172 Sampling Freshly Mixed Concrete

ASTM C 260 Air-Entraining Admixtures for Concrete

ASTM C 309 Liquid Membrane-Forming Compounds for Curing Concrete

ASTM C 494 Chemical Admixtures for Concrete

ASTM C 595 Blended Hydraulic Cements

ASTM C 618 Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete

ASTM D 1751 Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types)

ASTM D 1752 Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction

AASHTO T 26 Quality of Water to be Used in Concrete

END ITEM P-610



## **MODIFICATIONS TO SPECIFICATIONS ITEM P-620**

The provisions of this specification shall be applicable except as modified as follows:

**620-1.1** This item shall consist of the painting of permanent numbers, markings, and stripes on the surface of runways and taxiways applied in accordance with these specifications and at the locations shown on the plans, or as directed by the engineer. Temporary markings including runway closure markers and marking the taxiway for a temporary runway use is not for direct compensation.

**620-2.1 PAINT.** Paint shall meet the requirements of Fed. Spec. TT-P-1952.

**620-2.2 REFLECTIVE MEDIA.** Reflective Media is required. See 620-2.2.



## **ITEM P-620: RUNWAY AND TAXIWAY PAINTING**

### **DESCRIPTION**

**620-1.1** This item shall consist of the painting of numbers, markings, and stripes on the surface of runways and taxiways applied in accordance with these specifications and at the locations shown on the plans, or as directed by the engineer.

### **MATERIALS**

**620-2.1 PAINT.** Paint shall meet the requirements of Fed. Spec. TT-P-1952.

**620-2.2 REFLECTIVE MEDIA.** Glass spheres shall meet the requirements of Fed. Spec. TT-B-1325, Type III, gradation A.

### **CONSTRUCTION METHODS**

**620-3.1 WEATHER LIMITATIONS.** The painting shall be performed only when the surface is dry, when the atmospheric temperature is above 45 F (7 C), and when the weather is not foggy or windy.

**620-3.2 EQUIPMENT.** All equipment for the work shall be approved by the engineer and shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall be designed so as to apply markings of uniform cross sections and clear-cut edges without running or spattering.

**620-3.3 PREPARATION OF SURFACE.** Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other foreign material which would reduce the bond between the paint and the pavement. The area to be painted shall be cleaned by seeping and blowing or by other methods as required to remove all dirt, laitance, and loose materials.

**620-3.4 LAYOUT OF MARKINGS.** On those sections of pavement where no previously applied markings are available to serve as a guide, the proposed markings shall be laid out in advance of the paint application.

**620-3.5 APPLICATION.** Markings shall be applied at the locations and to the dimensions and spacing shown on the plans and the exhibit following. Paint shall not be applied until the layout and conditions of the surface have been approved by the engineer.

The paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate of 100 to 110 square feet (9 to 10 square meters) per gallon (liter). The addition of thinner will not be permitted. A period of 24 hours shall elapse between placement of a bituminous surface course or seal coat and application of the paint.

The edges of the markings shall not vary from a straight line more than ½ inch (12 mm) in 50 feet (15 m), and the dimensions shall be within a tolerance of plus or minus 5 percent. Glass spheres shall be distributed to the surface of the marked areas immediately after application of the paint. A dispenser shall be furnished which is properly designed for attachment to the marking machine and suitable for dispensing glass spheres. The spheres shall be applied at the rate of 10 pounds per gallon (1.2 kg per liter) of paint.

The contractor shall furnish certified test reports for the material shipped to the project. The reports shall not be interpreted as a basis for final acceptance. The contractor shall notify the engineer upon arrival of a shipment of paint to the job site. All emptied containers shall be returned to the paint storage area for checking by the engineer. The containers shall not be removed from the airport or destroyed until authorized by the engineer.

**620-3.6 PROTECTION.** After application of the paint, all markings shall be protected from damage until the paint is dry. All surfaces shall be protected from disfiguration by splatter, splashes, spillage, or drippings of paint.

## **METHOD OF MEASUREMENT**

**620-4.1** The quantity of runway and taxiway markings to be paid for shall be the number of square feet of painting and the number of square feet of preformed markings one complete item in place performed in accordance with the specifications and accepted by the Engineer.

## **BASIS OF PAYMENT**

**620-5.1** Payment shall be made at the respective contract price per square foot for runway and taxiway painting and price per square foot for preformed markings. This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item.

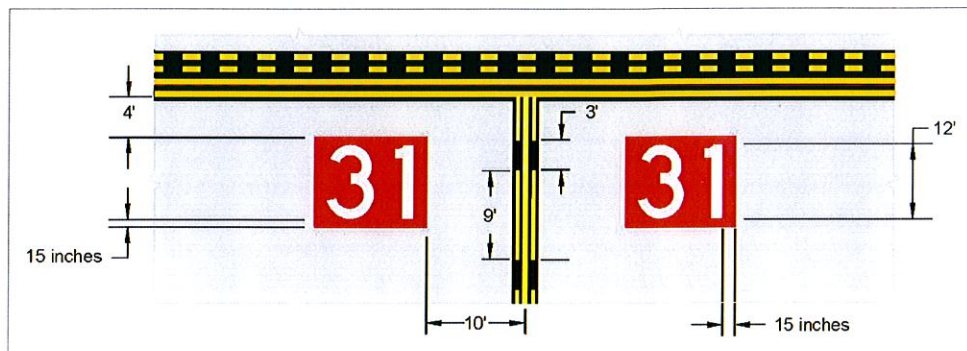
Payment will be made under:

Item P 620 5.1(A)     Runway and Taxiway Painting per square foot

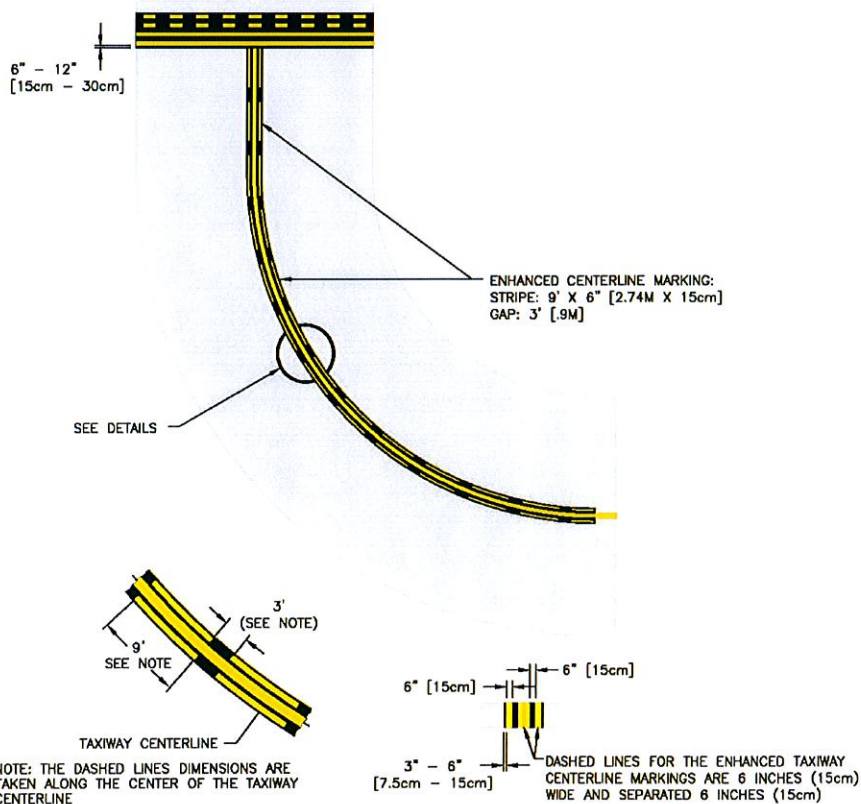
## **MATERIAL REQUIREMENTS**

|                                       |                                                    |
|---------------------------------------|----------------------------------------------------|
| Fed. Spec. TT-P-85                    | Paint, Traffic, and Airfield Marking, Solvent Base |
| Fed. Spec. TT-P-1952<br>Emulsion Base | Paint, Traffic and Airfield Marking, Water         |
| Fed. Spec. TT-P-110                   | Paint, Traffic Black (Nonreflectorized)            |
| Fed. Spec. TT-B-1325                  | Beads (Glass Spheres) Retroreflective              |

END ITEM P-620



*SURFACE PAINTED HOLD POSITION SIGNS*



*TYPICAL ENHANCED TAXIWAY MARKING SPACING*

## **PART IX – DRAINAGE**

### **ITEM D-701 PIPE FOR STORM DRAINS AND CULVERTS**

#### **DESCRIPTION**

**701-1.1** This item shall consist of the construction of pipe culverts and storm drains in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans.

#### **MATERIALS**

**701-2.1** Materials shall meet the requirements shown on the plans and specified below.

**701-2.2 PIPE.** The pipe shall be of the type called for on the plans or in the proposal and shall be in accordance with the following appropriate requirements. R.C.P. will be Class II, Wall Type B

Reinforced Concrete Pipe

ASTM C 76

Poly (Vinyl Chloride) Ribbed Drain Pipe & Fittings  
Based on Controlled Inside Diameter

ASTM F 794

**701-2.3 CONCRETE.** Concrete for pipe cradles shall have a minimum compressive strength of 2000 psi (13.8 MPa) at 28 days and conform to the requirements of ASTM C 94.

**701-2.4 RUBBER GASKETS.** Rubber gaskets for rigid pipe shall conform to the requirements of ASTM C 443. Rubber gaskets for PVC pipe and polyethylene pipe shall conform to the requirements of ASTM F 477. Rubber gaskets for zinc-coated steel pipe and precoated galvanized pipe shall conform to the requirements of ASTM D 1056, for the "RE" closed cell grades.

**701-2.5 JOINT MORTAR.** Pipe joint mortar shall consist of one part portland cement and two parts sand. The portland cement shall conform to the requirements of ASTM C 150, Type I. The sand shall conform to the requirements of ASTM C 144.

**701-2.6 JOINT FILLERS.** Poured filler for joints shall conform to the requirements of ASTM D 1190.

**701-2.7 PLASTIC GASKETS.** Plastic gaskets shall conform to the requirements of AASHTO M 198 (Type B).



## CONSTRUCTION METHODS

**701-3.1 EXCAVATION.** The width of the pipe trench shall be sufficient to permit satisfactory jointing of the pipe and thorough tamping of the bedding material under and around the pipe, but it shall not be less than the external diameter of the pipe plus 6 inches (150 mm) on each side. The trench walls shall be approximately vertical.

Where rock, hardpan, or other unyielding material is encountered, the Contractor shall remove it from below the foundation grade for a depth of at least 12 inches (300 mm) or one-half inch (12 mm) for each foot of fill over the top of the pipe (whichever is greater) but for no more than three-quarters of the nominal diameter of the pipe. The width of the excavation shall be at least 1 foot (30 cm) greater than the horizontal outside diameter of the pipe. The excavation below grade shall be backfilled with selected fine compressible material, such as silty clay or loam, and lightly compacted in layers not over 6 inches (150 mm) in uncompacted depth to form a uniform but yielding foundation.

Where a firm foundation is not encountered at the grade established, due to soft, spongy, or other unstable soil, the unstable soil shall be removed and replaced with approved granular material for the full trench width. The Engineer shall determine the depth of removal necessary. The granular material shall be compacted to provide adequate support for the pipe.

The excavation for pipes that are placed in embankment fill shall not be made until the embankment has been completed to a height above the top of the pipe as shown on the plans.

**701-3.2 BEDDING.** The pipe bedding shall conform to the class specified on the plans. When no bedding class is specified or detailed on the plans, the requirements for Class C bedding shall apply.

**a. Rigid Pipe.** Class A bedding shall consist of a continuous concrete cradle conforming to the plan details.

Class B bedding shall consist of a bed of granular material having a thickness of at least 6 inches (150 mm) below the bottom of the pipe and extending up around the pipe for a depth of not less than 30 percent of the pipe's vertical outside diameter. The layer of bedding material shall be shaped to fit the pipe for at least 10 percent of the pipe's vertical diameter and shall have recesses shaped to receive the bell of bell and spigot pipe. The bedding material shall be sand or selected sandy soil, all of which passes a 3/8 inch (9 mm) sieve and not more than 10 percent of which passes a No. 200 (0.075 mm) sieve.

Class C bedding shall consist of bedding the pipe in its natural foundation to a depth of not less than 10 percent of the pipe's vertical outside diameter. The bed shall be shaped to fit the pipe and shall have recesses shaped to receive the bell of bell and spigot pipe.

**b. Flexible Pipe.** For flexible pipe, the bed shall be roughly shaped to fit the pipe, and a bedding blanket of sand or fine granular material shall be provided as follows:

| Pipe Corrugation Depth |      | Minimum Bedding Depth |      |
|------------------------|------|-----------------------|------|
| in.                    | mm   | in.                   | mm   |
| 1/2                    | 12.5 | 1                     | 25.0 |
| 1                      | 25.0 | 2                     | 50.0 |
| 2                      | 50.0 | 3                     | 75.0 |
| 2-1/2                  | 62.5 | 3-1/2                 | 87.5 |

**c. PVC and Polyethylene Pipe.** For PVC and polyethylene pipe, the bedding material shall consist of coarse sands and gravels with a maximum particle size of 3/4-inch (13 mm). For pipes installed under paved areas, no more than 12 percent of the material shall pass the No. 200 (0.075 mm) sieve. For all other areas, no more than 50 percent of the material shall pass the No. 200 (0.075 mm) sieve. The bedding shall have a thickness of at least 6 inches (150 mm) below the bottom of the pipe and extend up around the pipe for a depth of not less than 50 percent of the pipe's vertical outside diameter.

**701-3.3 LAYING PIPE.** The pipe laying shall begin at the lowest point of the trench and proceed upgrade. The lower segment of the pipe shall be in contact with the bedding throughout its full length. Bell or groove ends of rigid pipes and outside circumferential laps of flexible pipes shall be placed facing upgrade.

Paved or partially lined pipe shall be placed so that the longitudinal center line of the paved segment coincides with the flow line.

Elliptical and elliptically reinforced pipes shall be placed with the manufacturer's top of pipe mark within five degrees of a vertical plane through the longitudinal axis of the pipe.

**701-3.4 JOINING PIPE.** Joints shall be made with (1) portland cement mortar, (2) portland cement grout, (3) rubber gaskets, (4) plastic gaskets, or (5) coupling bands.

Mortar joints shall be made with an excess of mortar to form a continuous bead around the outside of the pipe and shall be finished smooth on the inside. Molds or runners shall be used for grouted joints in order to retain the poured grout. Rubber ring gaskets shall be installed to form a flexible watertight seal.

**a. Concrete Pipe.** Concrete pipe may be either bell and spigot or tongue and groove. The method of joining pipe sections shall be such that the ends are fully entered and the inner surfaces are reasonably flush and even. Joints shall be thoroughly wetted before mortar or grout is applied.

**b. PVC and Polyethylene Pipe.** Joints for PVC and Polyethylene pipe shall conform to the requirements of ASTM D 3212 when water tight joints are required. Joints for PVC and Polyethylene pipe shall conform to the requirements of AASHTO M 304 when soil tight joints are required. Fittings for polyethylene pipe shall conform to the requirements of AASHTO M 252 or M 294M.

**701-3.5 BACKFILLING.** Pipes shall be inspected before any backfill is placed; any pipes found to be out of alignment, unduly settled, or damaged shall be removed and relaid or replaced at the Contractor's expense.

Material for backfill shall be fine, readily compatible soil, granular material selected from the excavation or a source of the Contractor's choosing. It shall not contain frozen lumps, stones that would be retained on a 2-inch (50.0 mm) sieve, chunks of highly plastic clay, or other objectionable material. No less than 95 percent of a granular backfill material shall pass through a 1/2 inch (12 mm) sieve, and no less than 95 percent of it shall be retained on a No. 4 (4.75 mm) sieve.

When the top of the pipe is even with or below the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches (150 mm) on both sides of the pipe and shall be brought up one foot (30 cm) above the top of the pipe or to natural ground level, whichever is greater. Care shall be exercised to thoroughly compact the backfill material under the haunches of the pipe. Material shall be brought up evenly on both sides of the pipe.

When the top of the pipe is above the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches (150 mm) and shall be brought up evenly on both sides of the pipe to 1 foot (30 cm) above the top of the pipe. The width of backfill on each side of the pipe for the portion above the top of the trench shall be equal to twice the pipe's diameter of 12 feet (3.5 m), whichever is less.

For PVC and polyethylene pipe, the backfill shall be placed in two stages; first to the top of the pipe and then at least 12 inches (300 mm) over the top of the pipe. The backfill material shall meet the requirements of paragraph 701-3.2c.

All backfill shall be compacted to the density required under Item P-152.

## METHOD OF MEASUREMENT

**701-4.1** The length of pipe shall be measured in linear feet of pipe in place, completed, and approved. It shall be measured along the centerline of the pipe from end or inside face of structure to the end or inside face of structure, whichever is applicable. The several classes, types and size shall be measured separately. All fittings shall be included in the footage as typical pipe sections in the pipe being measured.

## BASIS OF PAYMENT

**701-5.1** Payment will be made at the contract unit price per linear foot for each kind of pipe of the type and size designated; at the contract unit price per cubic yard of concrete for pipe cradles; and at the contract unit price per cubic yard for rock excavation.

These prices shall fully compensate the Contractor for furnishing all materials and for all preparation, excavation, and installation of these materials; and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item 701-5.1(D)      36" R.C.P. Per linear foot

#### MATERIAL REQUIREMENTS

|             |                                                                                        |
|-------------|----------------------------------------------------------------------------------------|
| ASTM C 14   | Concrete Sewer, Storm Drain, and Culvert Pipe                                          |
| ASTM C 76   | Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe                               |
| ASTM C 94   | Ready Mixed Concrete                                                                   |
| ASTM C 144  | Aggregate for Masonry Mortar                                                           |
| ASTM C 150  | Portland Cement                                                                        |
| ASTM C 443  | Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets              |
| ASTM C 506  | Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe                          |
| ASTM C 1433 | Precast Reinforced Concrete Box Sections for Culverts, Storm Drains, and Sewers        |
| ASTM D 3034 | Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings                           |
| ASTM D 3212 | Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals              |
| ASTM D 6690 | Joint and Crack Sealants, Hot-Applied, for Concrete and Asphalt Pavements              |
| ASTM F 477  | Elastomeric Seals (Gaskets) for Joining Plastic Pipe                                   |
| ASTM F 794  | Poly (Vinyl Chloride) Ribbed Drain Pipe & Fittings Based on Controlled Inside Diameter |

|              |                                                                                                      |
|--------------|------------------------------------------------------------------------------------------------------|
| ASTM F 949   | Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth Interior and Fittings                |
| AASHTO M 198 | Joints for Circular Concrete Sewer and Culvert Pipe Using Flexible Watertight Gaskets                |
| AASHTO M 304 | Poly (Vinyl Chloride) (PVC) Profile Wall Drain Pipe and Fittings Based on Controlled Inside Diameter |

**END ITEM D-701**

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## ITEM D-705 PIPE UNDERDRAINS FOR AIRPORTS

### DESCRIPTION

**705-1.1** This item shall consist of the construction of pipe drains in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans.

### MATERIALS

**705-2.1 GENERAL.** Materials shall meet the requirements shown on the plans and specified below.

**705-2.2 PIPE.** The pipe shall be of the type called for on the plans or in the proposal and shall be in accordance with the following appropriate requirements.

|                                                                                           |            |
|-------------------------------------------------------------------------------------------|------------|
| Smooth-Wall Perforated PVC Pipe                                                           | ASTM F 758 |
| Poly (Vinyl Chloride) Ribbed Drain Pipe & Fittings<br>Based on Controlled Inside Diameter | ASTM F 794 |

**705-2.3 JOINT MORTAR.** Pipe joint mortar shall consist of one part portland cement and two parts sand. The portland cement shall conform to the requirements of ASTM C 150, Type I. The sand shall conform to the requirements of ASTM C 144.

**705-2.4 ELASTOMERIC SEALS.** Elastomeric seals shall conform to the requirements of ASTM F 477.

**705-2.5 POROUS BACKFILL.** Porous backfill shall be free of clay, humus, or other objectionable matter, and shall conform to the gradation in Table 1 when tested in accordance with ASTM C 136.

**TABLE 1. GRADATION OF POROUS BACKFILL**

| Sieve Designation<br>(square openings) | Percentage by<br>Weight Passing Sieves<br>Porous Material No. 1 |
|----------------------------------------|-----------------------------------------------------------------|
| 1-1/2 inch (38 mm)                     |                                                                 |
| 1 inch (25 mm)                         |                                                                 |
| 3/8 inch (9.5 mm)                      | 100                                                             |
| No. 4 (4.75 mm)                        | 95 – 100                                                        |
| No. 8 (2.36 mm)                        |                                                                 |
| No. 16 (1.18 mm)                       | 45 – 80                                                         |
| No. 50 (0.30 mm)                       | 10 – 30                                                         |
| No. 100 (0.15 mm)                      | 0 – 10                                                          |

When two courses of porous backfill are specified in the plans, the finer of the materials shall conform to particle size tabulated herein for porous material No. 1. The coarser granular material shall meet the gradation given in the tabulation for porous material No. 2.

**705-2.6. GRANULAR MATERIAL.** Granular material used for backfilling shall conform to the requirements of ASTM D 2321 for Class IA, IB, or II materials, or shall meet the requirements of AASHTO Standard Specification for Highway Bridges Section 30.

**705-2.7. FILTER FABRIC.** The filter fabric shall conform to the requirements of AASHTO M 288-99, Class 2.

**TABLE 2**

| <b>Fabric Property</b>                           | <b>Test Method</b>                             | <b>Test Requirement</b> |
|--------------------------------------------------|------------------------------------------------|-------------------------|
| <b>Grab Tensile Strength, lbs</b>                | <b>ASTM D 4632</b>                             | <b>125 min</b>          |
| <b>Grab Tensile Elongation %</b>                 | <b>ASTM D 4632</b>                             | <b>50 min</b>           |
| <b>Burst Strength, psi</b>                       | <b>ASTM D 3785</b>                             | <b>125 min</b>          |
| <b>Trapezoid Tear Strength, lbs</b>              | <b>ASTM D 4533</b>                             | <b>55 min</b>           |
| <b>Puncture Strength, lbs</b>                    | <b>ASTM D 4833</b>                             | <b>40 min</b>           |
| <b>Abrasion, lbs</b>                             | <b>ASTM D 4886</b>                             | <b>15 max loss</b>      |
| <b>Equivalent Opening Size</b>                   | <b>ASTM D 4751</b>                             | <b>70-100</b>           |
| <b>Permittivity sec<sup>-1</sup></b>             | <b>ASTM D 4491</b>                             | <b>0.80</b>             |
| <b>Accelerated Weathering<br/>(UV Stability)</b> | <b>ASTM D 4355<br/>*(500 hrs<br/>exposure)</b> | <b>70</b>               |
| <b>(Strength Retained -<br/>%)</b>               |                                                |                         |

**705-2.8. CONTROLLED LOW STRENGTH MATERIAL (CLSM).** Controlled low strength material shall conform to the requirements of Item P-153. When CLSM is used all joints shall have elastomeric seals.

## CONSTRUCTION METHODS

**705-3.1 EQUIPMENT.** All equipment necessary and required for the proper construction of pipe underdrains shall be on the project, in first-class working condition, and approved by the Engineer before construction is permitted to start.

**705-3.2 EXCAVATION.** The width of the pipe trench shall be sufficient to permit satisfactory jointing of the pipe and thorough tamping of the bedding material under and around the pipe, but shall not be less than the external diameter of the pipe plus 6 inches (150 mm) on each side. The trench walls shall be approximately vertical.

Where rock, hardpan, or other unyielding material is encountered, it shall be removed below the foundation grade for a depth of at least 4 inches (100 mm). The excavation below grade shall be backfilled with selected fine compressible material, such as silty clay or loam, and lightly compacted in layers not over 6 inches (150 mm) in uncompacted depth to form a uniform but yielding foundation.

Where a firm foundation is not encountered at the grade established, due to soft, spongy, or other unstable soil, the unstable soil shall be removed and replaced with approved granular material for the full trench width. The Engineer shall determine the depth of removal necessary. The granular material shall be compacted to provide adequate support for the pipe.

Excavated material not required or acceptable for backfill shall be disposed of by the Contractor as directed by the Engineer. The excavation shall not be carried below the required depth; when this is done, the trench shall be backfilled at the Contractor's expense with material approved by the Engineer and compacted to the density of the surrounding earth material.

The bed for the pipe shall be so shaped that at least the lower quarter of the pipe shall be in continuous contact with the bottom of the trench. Spaces for the pipe bell shall be excavated accurately to size to clear the bell so that the barrel supports the entire weight of the pipe.

The Contractor shall do such trench bracing, sheathing, or shoring necessary to perform and protect the excavation as required for safety and conformance to governing laws. Unless otherwise provided, the bracing, sheathing, or shoring shall be removed by the Contractor after the completion of the backfill to at least 12 inches (300 mm) over the top of the pipe. The sheathing or shoring shall be pulled as the granular backfill is placed and compacted to avoid any unfilled spaces between the trench wall and the backfill material. The cost of bracing, sheathing, or shoring, and the removal of same, shall be included in the unit price bid per foot (meter) for the pipe.

### **705-3.3 LAYING AND INSTALLING PIPE.**

**a. PVC or Polyethylene Pipe.** PVC or polyethylene pipe shall be installed in accordance with the requirements of ASTM D 2321 or AASHTO Standard Specification for Highway Bridges Section 30. Perforations shall meet the requirements of AASHTO M 252 or M 294 Class 2, unless otherwise indicated on the plans. The pipe shall be laid accurately to line and grade.

**b. All Types of Pipe.** The upgrade end of pipelines, not terminating in a structure, shall be plugged or capped as approved by the Engineer.

Unless otherwise shown on the plans, a 4-inch (100 mm) bed of granular backfill material shall be spread in the bottom of the trench throughout the entire length under all perforated pipe underdrains.

Pipe outlets for the underdrains shall be constructed when required or shown on the plans. The pipe shall be laid with tight-fitting joints. Porous backfill is not required around or over pipe



outlets for underdrains. All connections to other drainage pipes or structures shall be made as required and in a satisfactory manner. If connections are not made to other pipes or structures, the outlets shall be protected and constructed as shown on the plans.

**c. Filter Fabric.** The filter fabric shall be installed in accordance with the manufacturer's recommendations, or in accordance with AASHTO M 288-99 APPENDIX, unless otherwise shown on the plans.

**705-3.4 MORTAR.** The mortar shall be of the desired consistency for caulking and filling the joints of the pipe and for making connections to other pipes or to structures. Mortar that is not used within 45 minutes after water has been added shall be discarded. Retempering of mortar shall not be permitted.

**705-3.5 JOINTS IN CONCRETE PIPE.** When open or partly open joints are required or specified, they shall be constructed as indicated on the plans. The pipe shall be laid with the ends fitted together as designed. If bell and spigot pipe is used, mortar shall be placed along the inside bottom quarter of the bell to center the following section of pipe.

The open or partly open joints shall be surrounded with granular material meeting requirements of porous backfill No. 2 or as indicated on the plans. This backfill shall be placed so its thickness will be not less than 3 inches (75 mm) nor more than 6 inches (150 mm), unless otherwise shown on the plans.

When the original material excavated from the trench is impervious, commercial concrete sand or granular material meeting requirements of porous backfill No. 1 shall surround porous backfill No. 2, as shown on the plans or as directed by the Engineer.

When the original material excavated from the trench is pervious and suitable, it may be used as backfill in lieu of porous backfill No. 1, when indicated on the plans or as directed by the Engineer.

#### **705-3.6 BACKFILLING.**

**a. Earth.** All trenches and excavations shall be backfilled within a reasonable time after the pipes are installed, unless other protection of the pipe is directed. The backfill material shall be selected material from excavation or borrow; material which is placed within a nominal pipe diameter distance at the sides of the pipe and 1 foot (30 cm) over the top shall be material that can be readily compacted. It shall not contain stones retained on a 3-inch (75 mm) sieve, frozen lumps, chunks of highly plastic clay, or any other material that is objectionable to the Engineer. The material shall be moistened or dried, if necessary to be compacted by the method in use. Backfill material shall be approved by the Engineer. Special care shall be taken in placing the backfill. Great care shall be used to obtain thorough compaction under the haunches and along the sides to the top of the pipe.

The backfill shall be placed in loose layers not exceeding 6 inches (150 mm) in depth under and around the pipe, and not exceeding 8 inches (200 mm) over the pipe. Successive layers shall be

added and thoroughly compacted by hand and pneumatic tampers, approved by the Engineer, until the trench is completely filled and brought to the proper elevation. Backfilling shall be done in a manner to avoid injurious top or side pressures on the pipe.

In embankments and for other areas outside of pavements, the backfill shall be compacted to the density required for embankments in unpaved areas under Item P-152. Under paved areas, the subgrade and any backfill shall be compacted to the density required for embankments for paved areas under Item P-152.

**b. Granular Material.** When granular backfill is required, its placement in the trench and about the pipe shall be as shown on the plans. Special care shall be taken in placing the backfill. The granular backfill shall not contain a damaging amount of foreign matter, nor shall earth from the sides of the trench or from the windrow be allowed to filter into the backfill. When required by the Engineer, a template shall be used to properly place and keep separate the two sizes of backfill. The backfill shall be placed in loose layers not exceeding 6 inches (150 mm) in depth and compacted by hand and pneumatic tampers to the requirements as given for earth backfill. Backfilling shall be done in a manner to avoid injurious top or side pressure on the pipe. The granular backfill shall be made to the elevation of the trench, as shown on the plans.

When perforated pipe is specified, granular backfill material shall be placed along the full length of the pipe. The position of the granular material shall be as shown on the plans. If the original material excavated from the trench is pervious and suitable, it shall be used in lieu of porous backfill No. 1.

When porous backfill is to be placed in paved or adjacent areas prior to the completion of grading or subgrade operations, the backfill material shall be placed immediately after laying the pipe. The depth of this granular backfill shall be not less than 12 inches (300 mm), measured from the top of the underdrain. During subsequent construction operations, this minimum backfill of 12 inches (300 mm) of depth shall not be disturbed until such time as the underdrains are to be completed. When the underdrains are to be completed, the unsuitable material shall be removed until the porous backfill is exposed. That part of the porous backfill that contains objectionable material shall be removed and replaced with suitable material. The cost of removing and replacing any such unsuitable material shall be borne by the Contractor.

Whenever a granular subbase blanket course is to be used under pavements which extends several feet beyond the edge of paving to the outside edge of the underdrain trench, the granular backfill material over the underdrains shall be placed in the trench up to an elevation of 2 inches (50 mm) above the bottom surface of the granular subbase blanket course. Immediately prior to the placing of the granular subbase blanket course, the Contractor shall blade this excess trench backfill from the top of the trench onto the adjacent subgrade where it can be incorporated into the granular subbase blanket course. Any unsuitable material that remains over the underdrain trench shall be removed and replaced. The subbase material shall be placed to provide clean contact between the subbase material and the underdrain granular backfill material for the full width of the underdrain trench.

**c. Controlled Low Strength Material (CLSM).** Controlled low strength material shall conform to the requirements of Item P-153.

**d. Deflection Testing.** The Engineer may at any time, notwithstanding previous material acceptance, reject or require re-installation of pipe that exceeds 5 percent deflection when measured in accordance with ASTM D 2321, including Appendices.

**705-3.7 CONNECTIONS.** When the plans call for connections to existing or proposed pipe or structures, these connections shall be watertight and made so that a smooth uniform flow line will be obtained throughout the drainage system.

**705-3.8 CLEANING AND RESTORATION OF SITE.** After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. Surplus dirt may be deposited in embankments, shoulders, or as ordered by the Engineer. Except for paved areas of the airport, the Contractor shall restore all disturbed areas to their original condition.

#### METHOD OF MEASUREMENT

**705-4.1** The length of pipe to be paid for shall be the number of linear of pipe underdrains in place, completed, and approved; measured along the centerline of the pipe from end or inside face of structure to the end or inside face of structure, whichever is applicable. The several classes, types, and sizes shall be measured separately. All fittings shall be included in the footage as typical pipe sections in the pipeline being measured.

**705-4.2** The quantity of porous backfill to be paid for shall be the number of cubic yards of porous backfill No. 1 and No. 2, complete in place and accepted, and shall be determined from the dimensions given on the plans by typical trench sections indicating the placement of porous backfill or dimensions ordered by the Engineer.

**705-4.3** The quantity of filter fabric to be paid for shall be the number of square yards of filter fabric in place, completed, and approved; and shall be determined from the dimensions given on the plans by typical trench sections indicating the placement of filter fabric or dimensions ordered by the Engineer.

#### BASIS OF PAYMENT

**705-5.1** Payment will be made at the contract unit price per linear foot for pipe underdrains of the type, class, and size designated; at the contract unit price. No separate payment for porous backfill or filter fabric. These prices shall be full compensation for furnishing all materials and for all preparation, excavation, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| Item D-705-5.5(B) | 6" inch pipe per linear foot COMPLETE (including porous backfill and filter fabric) |
|-------------------|-------------------------------------------------------------------------------------|

## MATERIAL REQUIREMENTS

|                 |                                                                                                              |
|-----------------|--------------------------------------------------------------------------------------------------------------|
| ASTM C 136      | Sieve Analysis of Fine and Coarse Aggregates                                                                 |
| ASTM D 3034     | Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings                                                  |
| ASTM F 477      | Elastomeric Seals (Gaskets) for Joining Plastic Pipe                                                         |
| ASTM F 758      | Smooth-Wall Poly(Vinyl Chloride) (PVC) Plastic Underdrain Systems for Highway, Airport, and Similar Drainage |
| ASTM F 794      | Poly (Vinyl Chloride) Ribbed Drain Pipe & Fittings Based on Controlled Inside Diameter                       |
| ASTM F 949      | Poly (Vinyl Chloride)(PVC) Corrugated Sewer Pipe with a Smooth Interior and Fittings                         |
| AASHTO M 288-99 | Geotextile Specification for Highway Applications                                                            |
| AASHTO M 294M   | Corrugated Polyethylene Pipe, 300 to 1200 mm Diameter                                                        |
| AASHTO M 304    | Poly (Vinyl Chloride) (PVC) Profile Wall Drain Pipe and Fittings Based on Controlled Inside Diameter         |
| AASHTO          | Standard Specifications for Highway Bridges                                                                  |

END ITEM D-705



### **MODIFICATIONS TO SPECIFICATIONS ITEM D-751**

The provisions of this specification shall be applicable except as modified as follows:

This project Item D-751 is for cast in place inlets. Only cast in place is allowed. No pre-cast structures allowed.



## ITEM D-751 MANHOLES, CATCH BASINS, INLETS AND INSPECTION HOLES

### DESCRIPTION

**751-1.1** This item shall consist of construction of manholes, catch basins, inlets, and inspection holes, in accordance with these specifications, at the specified locations and conforming to the lines, grades, and dimensions shown on the plans or required by the Engineer.

### MATERIALS

**751-2.1 BRICK.** The brick shall conform to the requirements of ASTM C 32, Grade SM.

**751-2.2 MORTAR.** Mortar shall consist of one part portland cement and two parts sand. The portland cement shall conform to the requirements of ASTM C 150, Type I. The sand shall conform to the requirements of ASTM C 144.

**751-2.3 CONCRETE.** Plain and reinforced concrete used in structures, connections of pipes with structures, and the support of structures or frames shall conform to the requirements of Item P-610.

**751-2.4 PRECAST CONCRETE PIPE MANHOLE RINGS.** Precast concrete pipe manhole rings shall conform to the requirements of ASTM C 478. Unless otherwise specified, the risers and offset cone sections shall have an inside diameter of not less than 36 inches (90 cm) nor more than 48 inches (120 cm).

**751-2.5 CORRUGATED METAL.** Corrugated metal shall conform to the requirements of AASHTO M 36.

**751-2.6 FRAMES, COVERS, AND GRATES.** The castings shall conform to one of the following requirements:

- a. Gray iron castings shall meet the requirements of ASTM A 48, Class 30B and 35B.
- b. Malleable iron castings shall meet the requirements of ASTM A 47.
- c. Steel castings shall meet the requirements of ASTM A 27.
- d. Structural steel for grates and frames shall conform to the requirements of ASTM A 283, Grade D.
- e. Ductile iron castings shall conform to the requirements of ASTM A 536.
- f. Austempered ductile iron castings shall conform to the requirements of ASTM A 897.

All castings or structural steel units shall conform to the dimensions shown on the plans and shall be designed to support the loadings, aircraft gear configuration and/or direct loading, specified.

Each frame and cover or grate unit shall be provided with fastening members to prevent it from being dislodged by traffic but which will allow easy removal for access to the structure.

All castings shall be thoroughly cleaned. After fabrication, structural steel units shall be galvanized to meet the requirements of ASTM A 123.

**751-2.7 STEPS.** The steps or ladder bars shall be gray or malleable cast iron or galvanized steel. The steps shall be the size, length, and shape shown on the plans and those steps that are not galvanized shall be given a coat of bituminous paint, when directed.

## CONSTRUCTION METHODS

### **751-3.1 UNCLASSIFIED EXCAVATION.**

**a.** The Contractor shall do all excavation for structures and structure footings to the lines and grades or elevations, shown on the plans, or as staked by the Engineer. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown. The elevations of the bottoms of footings, as shown on the plans, shall be considered as approximately only; and the Engineer may order, in writing, changes in dimensions or elevations of footings necessary to secure a satisfactory foundation.

**b.** Boulders, logs, or any other objectionable material encountered in excavation shall be removed. All rock or other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped, or serrated, as directed by the Engineer. All seams or crevices shall be cleaned out and grouted. All loose and disintegrated rock and thin strata shall be removed. When concrete is to rest on a surface other than rock, special care shall be taken not to disturb the bottom of the excavation, and excavation to final grade shall not be made until just before the concrete or reinforcing is to be placed.

**c.** The Contractor shall do all bracing, sheathing, or shoring necessary to implement and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheathing, or shoring shall be included in the unit price bid for the structure.

**d.** Unless otherwise provided, bracing, sheathing, or shoring involved in the construction of this item shall be removed by the Contractor after the completion of the structure. Removal shall be effected in a manner that will not disturb or mar finished masonry. The cost of removal shall be included in the unit price bid for the structure.

**e.** After each excavation is completed, the Contractor shall notify the Engineer to that effect; and concrete or reinforcing steel shall be placed after the Engineer has approved the depth of the excavation and the character of the foundation material.

### **751-3.2 BRICK STRUCTURES.**

**a. Foundations.** A prepared foundation shall be placed for all brick structures after the foundation excavation is completed and accepted. Unless otherwise specified, the base shall consist of reinforced concrete mixed, prepared, and placed in accordance with the requirements of Item P-610.

**b. Laying Brick.** All brick shall be clean and thoroughly wet before laying so that they will

not absorb any appreciable amount of additional water at the time they are laid. All brick shall be laid in freshly made mortar. Mortar that is not used within 45 minutes after water has been added shall be discarded. Retempering of mortar shall not be permitted. An ample layer of mortar shall be spread on the beds and a shallow furrow shall be made in it that can be readily closed by the laying of the brick. All bed and head joints shall be filled solid with mortar. End joints of stretchers and side or cross joints of headers shall be fully buttered with mortar and a shoved joint made to squeeze out mortar at the top of the joint. Any bricks that may be loosened after the mortar has taken its set, shall be removed, cleaned, and relaid with fresh mortar. No broken or chipped brick shall be used in the face, and no spalls or bats shall be used except where necessary to shape around irregular openings or edges; in which case, full bricks shall be placed at ends or corners where possible, and the bats shall be used in the interior of the course. In making closures, no piece of brick shorter than the width of a whole brick shall be used; and wherever practicable, whole brick shall be used and laid as headers.

**c. Joints.** All joints shall be slushed with mortar at every course, but slushing alone will not be considered adequate for making an acceptable joint. Exterior faces shall be laid up in advance of backing. Exterior faces shall be back plastered or pargeted with a coat of mortar not less than 3/8-inch (9 mm) thick before the backing is laid up. Prior to pargeting, all joints on the back of face courses shall be cut flush. Unless otherwise noted, joints shall be not less than 1/4-inch (6 mm) nor more than 1/2-inch (12 mm) wide and whatever width is adopted shall be maintained uniform throughout the work.

**d. Pointing.** Face joints shall be neatly struck, using the weather joint. All joints shall be finished properly as the laying of the brick progresses. When nails or line pins are used the holes shall be immediately plugged with mortar and pointed when the nail or pin is removed.

**e. Cleaning.** Upon completion of the work all exterior surfaces shall be thoroughly cleaned by scrubbing and washing down with water and, if necessary to produce satisfactory results, cleaning shall be done with a 5% solution of muriatic acid which shall then be rinsed off with liberal quantities of clean fresh water.

**f. Curing and Cold Weather Protection.** In hot or dry weather, or when directed by the Engineer, the brick masonry shall be protected and kept moist for at least 48 hours after laying the brick. Brick masonry work or pointing shall not be done when there is frost in the brick or when the air temperature is below 50 F (10 C) unless the Contractor has on the project ready to use, suitable covering and artificial heating devices necessary to keep the atmosphere surrounding the masonry at a temperature of not less than 60 F (15 C) for the duration of the curing period.

**751-3.3 CONCRETE STRUCTURES.** Concrete structures shall be built on prepared foundations, conforming to the dimensions and form indicated on the plans. The construction shall conform to the requirements specified in Item P-610. Any reinforcement required shall be placed as indicated on the plans and shall be approved by the Engineer before the concrete is poured.



All invert channels shall be constructed and shaped accurately so as to be smooth, uniform, and cause minimum resistance to flowing water. The interior bottom shall be sloped downward toward the outlet.

**751-3.4 PRECAST CONCRETE PIPE STRUCTURES.** Precast concrete pipe structures shall be constructed on prepared or previously placed slab foundations and shall conform to the dimensions and locations shown on the plans. All precast concrete pipe sections necessary to build a completed structure shall be furnished. The different sections shall fit together readily, and all jointing and connections shall be cemented with mortar. The top of the upper precast concrete pipe member shall be suitably formed and dimensioned to receive the metal frame and cover or grate, or other cap, as required. Provision shall be made for any connections for lateral pipe, including drops and leads that may be installed in the structure. The flow lines shall be smooth, uniform, and cause minimum resistance to flow. The metal steps that are embedded or built into the side walls shall be aligned and placed at vertical intervals of 12 inches (300 mm). When a metal ladder replaces the steps, it shall be securely fastened into position.

**751-3.5 CORRUGATED METAL STRUCTURES.** Corrugated metal structures shall be constructed on prepared foundations, conforming to the dimensions and locations as shown on the plans. The structures shall be prefabricated. standard or special fittings shall be furnished to provide pipe connections or branches of correct dimensions. The connections or branches shall be of sufficient length to accommodate connecting bands. The fittings shall be welded in place to the metal structures. When indicated, the structures shall be placed on a reinforced concrete base. The top of the metal structure shall be designed so that either a concrete slab or metal collar may be attached to which can be fastened a standard metal frame and grate or cover. Steps or ladders shall be furnished as shown on the plans.

**751-3.6 INLET AND OUTLET PIPES.** Inlet and outlet pipes shall extend through the walls of the structures for a sufficient distance beyond the outside surface to allow for connections but shall be cut off flush with the wall on the inside surface, unless otherwise directed. For concrete or brick structures, the mortar shall be placed around these pipes so as to form a tight, neat connection.

**751-3.7 PLACEMENT AND TREATMENT OF CASTINGS, FRAMES, AND FITTINGS.** All castings, frames, and fittings shall be placed in the positions indicated on the plans or as directed by the Engineer, and shall be set true to line and to correct elevation. If frames or fittings are to be set in concrete or cement mortar, all anchors or bolts shall be in place and position before the concrete or mortar is placed. The unit shall not be disturbed until the mortar or concrete has set.

When frames or fittings are to be placed upon previously constructed masonry, the bearing surface or masonry shall be brought true to line and grade and shall present an even bearing surface in order that the entire face or back of the unit will come in contact with the masonry. The unit shall be set in mortar beds and anchored to the masonry as indicated on the plans or as directed and approved by the Engineer. All units shall set firm and secure.

After the frames or fittings have been set in final position and the concrete or mortar has been allowed to harden for 7 days, then the grates or covers shall be placed and fastened down.

**751-3.8 INSTALLATION OF STEPS.** The steps shall be installed as indicated on the plans or as directed by the Engineer. When the steps are to be set in concrete, they shall be placed and secured in position before the concrete is poured. When the steps are installed in brick masonry, they shall be placed as the masonry is being built. The steps shall not be disturbed or used until the concrete or mortar has hardened for at least 7 days. After this period has elapsed, the steps shall be cleaned and painted, unless they have been galvanized.

When steps are required with precast concrete pipe structures, they shall be cast into the sides of the pipe at the time the pipe sections are manufactured or set in place after the structure is erected by drilling holes in the concrete and cementing the steps in place.

When steps are required with corrugated metal structures, they shall be welded into aligned position at a vertical spacing of 12 inches (300 mm).

In lieu of steps, prefabricated ladders may be installed. In the case of brick or concrete structures, the ladder shall be held in place by grouting the supports in drilled holes. In the case of metal structures, the ladder shall be secured by welding the top support and grouting the bottom support into drilled holes in the foundation or as directed.

#### **751-3.9 BACKFILLING.**

a. After a structure has been completed, the area around it shall be filled with approved material, in horizontal layers not to exceed 8 inches (200 mm) in loose depth, and compacted to the density required in Item P-152. Each layer shall be deposited all around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the Engineer.

b. Backfilling shall not be placed against any structure until permission is given by the Engineer. In the case of concrete, such permission shall not be given until the concrete has been in place 7 days, or until tests made by the laboratory under supervision of the Engineer establish that the concrete has attained sufficient strength to provide a factor of safety against damage or strain in withstanding any pressure created by the backfill or the methods used in placing it.

c. Backfill shall not be measured for direct payment. Performance of this work shall be considered on obligation of the Contractor covered under the contract unit price for the structure involved.

**751-3.10 CLEANING AND RESTORATION OF SITE.** After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. Surplus dirt may be deposited in embankments, shoulders, or as ordered by the Engineer. The Contractor shall restore all disturbed areas to their original condition.

After all work is completed, the Contractor shall remove all tools and equipment, leaving the entire site free, clear, and in good condition.

#### METHOD OF MEASUREMENT

**751-4.1** Manholes, catch basins, inlets, and inspection holes shall be measured by the unit.

#### BASIS OF PAYMENT

**751-5.1** The accepted quantities of manholes, catch basins, inlets, and inspection holes will be paid for at the contract unit price per each in place when completed. This price shall be full compensation for furnishing all materials and for all preparation, excavation, backfilling and placing of the materials; furnishing and installation of such specials and connections to pipes and other structures as may be required to complete the item as shown on the plans; and for all labor equipment, tools and incidentals necessary to complete the structure.

Payment will be made under:

Item D-751-5.2     Inlet—per each

#### MATERIAL REQUIREMENT

|            |                                                                             |
|------------|-----------------------------------------------------------------------------|
| ASTM A 27  | Steel Castings, Carbon, for General Application                             |
| ASTM A 47  | Ferritic Malleable Iron Castings                                            |
| ASTM A 48  | Gray Iron Castings                                                          |
| ASTM A 123 | Zinc Coating (Hot-Dip) on Iron and Steel Hardware                           |
| ASTM A 283 | Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes, and Bars |
| ASTM A 536 | Ductile Iron Castings                                                       |
| ASTM A 897 | Austempered Ductile Iron Castings                                           |
| ASTM C 32  | Sewer and Manhole Brick (Made from Clay or Shale)                           |
| ASTM C 144 | Aggregate for Masonry Mortar                                                |
| ASTM C 150 | Portland Cement                                                             |
| ASTM C 478 | Precast Reinforced Concrete Manhole Sections                                |

AASHTO M 36 Zinc Coated (Galvanized) Corrugated Iron or Steel Culverts and Underdrains

END ITEM D-751

## **ITEM D-752 CONCRETE CULVERTS, HEADWALLS, AND MISCELLANEOUS DRAINAGE STRUCTURES**

### **DESCRIPTION**

**752-1.1** This item shall consist of reinforced concrete culverts repair, the box culvert extension, headwalls, and miscellaneous drainage structures constructed in accordance with these specifications, at the specified locations and conforming to the lines, grades, and dimensions shown on the plans or required by the Engineer.

### **MATERIALS**

**752-2.1 CONCRETE.** Reinforced concrete shall meet the requirements of Item P-610.

### **CONSTRUCTION METHODS**

#### **752-3.1 UNCLASSIFIED EXCAVATION.**

**a.** Trenches and foundation pits for structures or structure footings shall be excavated to the lines and grades or elevations shown on the plans. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown. The elevations of the bottoms of footings, as shown on the plans, shall be considered as approximate only; and the Engineer may order, in writing, changes in dimensions or elevations of footings necessary to secure a satisfactory foundation.

**b.** Boulders, logs, or any other objectionable material encountered in excavation shall be removed. All rock or other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped, or serrated, as directed by the Engineer. All seams or crevices shall be cleaned out and grouted. All loose and disintegrated rock and thin strata shall be removed. When concrete is to rest on a surface other than rock, special care shall be taken not to disturb the bottom of the excavation, and excavation to final grade shall not be made until just before the concrete or reinforcing steel is to be placed.

**c.** The Contractor shall do all bracing, sheathing, or shoring necessary to perform and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheathing, or shoring shall be included in the unit price bid for excavation.

**d.** Unless otherwise provided, bracing, sheathing, or shoring involved therewith shall be removed by the Contractor after the completion of the structure. Removal shall be effected in a manner that will not disturb or mar finished concrete. The cost of removal shall be included in the unit price bid for excavation.

**e.** After each excavation is completed, the Contractor shall notify the Engineer to that effect, and concrete or reinforcing steel shall be placed after the Engineer has approved the depth of the excavation and the character of the foundation material.

### **752-3.2 BACKFILLING.**

a. After a structure has been completed, backfilling with approved material shall be accomplished by applying the fill in horizontal layers not to exceed 8 inches (200 mm) in loose depth, and compacted. The field density of the compacted material shall be at least 90 percent of the maximum density for cohesive soils and 95 percent of the maximum density for noncohesive soils. The maximum density shall be determined in accordance with ASTM D 698. The field density shall be determined in accordance with ASTM D 1556.

b. No backfilling shall be placed against any structure until permission is given by the Engineer. In the case of concrete, such permission shall not be given until the concrete has been in place 7 days, or until tests made by the laboratory under the supervision of the Engineer establish that the concrete has attained sufficient strength to provide a factor of safety against damage or strain in withstanding any pressure created by the backfill or the methods used in placing it.

c. Fill placed around concrete culverts shall be deposited on both sides at the same time and to approximately the same elevation. Care shall be taken to prevent any wedging action against the structure, and all slopes bounding or within the areas to be backfilled shall be stepped or serrated to prevent wedge action.

d. Backfill will not be measured for direct payment. Performance of this work under the contract is not payable directly but shall be considered as a subsidiary obligation of the Contractor, covered under the contract unit price for "unclassified excavation for structures."

**752-3.3 WEEP HOLES.** Weep holes shall be constructed as shown on the plans.

**752-3.4 CLEANING AND RESTORATION OF SITE.** After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. Surplus dirt may be deposited in embankment, shoulders, or as ordered by the Engineer. The Contractor shall restore all disturbed areas to their original condition.

After all work is completed, the Contractor shall remove all tools and equipment, leaving the entire site free, clear, and in good condition.

### **METHOD OF MEASUREMENT**

**752-4.1** No separate measurement for payment will be made.

### **BASIS OF PAYMENT**

**752-5.1 Lump Sum** - Payment shall be made as a lump sum payment.

Payment will be made under:

Item D-752    Concrete Headwall per lump sum.

## TESTING REQUIREMENTS

|             |                                                                                                                          |
|-------------|--------------------------------------------------------------------------------------------------------------------------|
| ASTM D 698  | Moisture-Density Relations of Soils and Soil-Aggregate Mixtures<br>Using 5.5 lb (2.49 kg) Rammer and 12-in (305 mm) Drop |
| ASTM D 1556 | Density of Soil in Place by the Sand-Cone Method                                                                         |

**END OF ITEM D-752**

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## MODIFICATIONS TO ITEM T-901: SEEDING

The provisions of this specification shall be applicable except as modified as follows:

**901-2.1 SEED.** Seeds shall be applied as follows:

| Seed                                    | Planting Dates | Minimum Seed Purity (%) | Minimum Seed Germination (%) | Rate of Application (lb. per acre) |
|-----------------------------------------|----------------|-------------------------|------------------------------|------------------------------------|
|                                         |                |                         |                              |                                    |
| Hulled Bermuda                          | March-Sept.    | 90                      | 85                           | 30                                 |
|                                         |                |                         |                              |                                    |
| Unhulled Bermua<br>Crimson<br>Clover(1) | Sept.-Feb.     | 90                      | 85                           | 20 40                              |
|                                         |                |                         |                              |                                    |

(1) Inoculated prior to planting with proper bacterial culture.

**901-2.2 LIME.** Lime will not be utilized on this project.



## ITEM T-901: SEEDING

### DESCRIPTION

**901-1.1** This item shall consist of soil preparation, seeding, fertilizing and mulching the areas shown on the plans or as directed by the Engineer in accordance with these specifications.

### MATERIALS

**901-2.1 SEED** The species and application rates of grass, legume, and cover-crop seed furnished shall be those stipulated herein. Seed shall conform to the requirements of Fed. Spec. JJJ-S-181.

Seed shall be furnished separately or in mixtures in standard containers with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the Engineer duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within 6 months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed.

Seeds shall be applied as follows:

| Seed | Minimum Seed<br>Purity (Percent) | Minimum Germination<br>(Percent) | Rate of Application<br>lb./acre (or lb./1,000 S.F.) |
|------|----------------------------------|----------------------------------|-----------------------------------------------------|
|------|----------------------------------|----------------------------------|-----------------------------------------------------|

### See Modification Sheet

Seeding shall be performed during the period between January and December inclusive, unless otherwise approved by the Engineer.

**901-2.2 LIME.** Lime shall be ground limestone containing not less than 85% of total carbonates, and shall be ground to such fineness that 90% will pass through a No. 20 mesh sieve and 50% will pass through a No. 100 mesh sieve. Coarser material will be acceptable, providing the rates of application are increased to provide not less than the minimum quantities and depth specified in the special provisions on the basis of the two sieve requirements above. Dolomitic lime or a high magnesium lime shall contain at least 10% of magnesium oxide. Lime shall be applied at the rate of [     ]. All liming materials shall conform to the requirements of ASTM C 602.

**901-2.3 FERTILIZER.** Fertilizer shall be standard commercial fertilizers supplied separately or in mixtures containing the percentages of total nitrogen, available phosphoric acid, and water-soluble potash. They shall be applied at the rate and to the depth specified herein, and shall meet the requirements of Fed. Spec. O-F-241 and applicable state laws. They shall be furnished in standard containers with name, weight, and guaranteed analysis of contents clearly marked thereon. No cyanamide compounds or hydrated lime shall be permitted in mixed fertilizers.

The fertilizers may be supplied in one of the following forms:

- a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
- b. A finely-ground fertilizer soluble in water, suitable for application by power sprayers;  
or
- c. A granular or pellet form suitable for application by blower equipment

Fertilizers shall be 8-8-8 commercial fertilizer and shall be spread at the rate of 1000 per acre.

**901-2.4 SOIL FOR REPAIRS.** The soil for fill and top-soiling of areas to be repaired shall be at least of equal quality to that which exists in areas adjacent to the area to be repaired. The soil shall be relatively free from large stones, roots, stumps, or other materials that will interfere with subsequent sowing of seed, compacting, and establishing turf, and shall be approved by the Engineer before being placed.

## **CONSTRUCTION METHODS**

**901-3.1 ADVANCE PREPARATION AND CLEANUP.** After grading of areas has been completed and before applying fertilizer and ground limestone, areas to be seeded shall be raked or otherwise cleared of stones larger than 2 inches (50 mm) in any diameter, sticks, stumps, and other debris which might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes has occurred after the completion of grading and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage. This may include filling gullies, smoothing irregularities, and repairing other incidental damage.

An area to be seeded shall be considered a satisfactory seedbed without additional treatment if it has been recently been thoroughly loosened and worked to a depth of not less than 5 inches (125 mm) as a result of grading operations and, if immediately prior to seeding, the top 3 inches (75 mm) of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and if shaped to the required grade.

However, when the area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, any grass and weeds shall first be cut or otherwise satisfactorily disposed

of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches (125 mm). Clods shall

be broken and the top 3 inches (75 mm) of soil shall be worked into a satisfactory seedbed by discing, or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

### **901-3.2 DRY APPLICATION METHOD.**

a. Liming. Lime shall be applied separately and prior to the application of any fertilizer or seed and only on seedbeds. Which have previously been prepared as described above. The lime shall then be worked into the top 3 inches (75 mm) of soil after which the seedbed shall again be properly graded and dressed to a smooth finish.

b. Fertilizing. Following advance preparations and cleanup fertilizer shall be uniformly spread at the rate which will provide not less than the minimum quantity stated in paragraph 901-2.3.

c. Seeding. Grass seed shall be sown at the rate specified in paragraph 901-2.1 immediately after fertilizing, and the fertilizer and seed shall be raked within the depth range stated in the special provisions. Seeds of legumes, either alone or in a mixture, shall be inoculated before mixing or sowing, in accordance with the instructions of the manufacturer of the inoculant. When seeding is required at other than the seasons shown on the plans or in the special provisions, a cover crop shall be sown by the same methods required for grass and legume seeding.

d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted by means of an approved lawn-roller, weighting 40-65 pounds per foot (60-97 kg per meter) of width for clay soil (or any soil having a tendency to pack), and weighting 150-200 pounds per foot (223 to 298 kg per meter) of width for sandy or light soils.

### **901-3.3 WET APPLICATION METHOD.**

a. General. The Contractor may elect to apply seed and fertilizer (and lime, if required) by spraying them on the previously prepared seedbed in the form of an aqueous mixture and by using the methods and equipment described herein. The rates of application shall be as specified in the special provisions.

b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge calibrated to read in increments not larger than 50 gallons (190 liters) over the entire range of the tank capacity, mounted so as to be visible to the nozzle operator. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The unit shall also be equipped with a pressure pump capable of delivering 100 gallons (380 liters) per minute at a pressure of 100 pounds per square inch (690 kPa). The pump shall be mounted in a line which will re-circulate the mixture through the tank whenever it is not being sprayed from the nozzle. All pump passages and pipe lines shall be capable of providing clearance for 5/8 inch (15 mm) solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. There shall be an indicating pressure gauge connected and mounted immediately at the back of the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the re-circulating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture delivered to the nozzle. At least three different types of nozzles shall be supplied so that mixtures may be properly sprayed over distance varying from 20 to 100 feet (6 to 30 m). One shall be a close-range ribbon nozzle, one a medium range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means quick-release couplings.

In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet (15 m) in length shall be provided to which the nozzles may be connected.

c. Mixtures. Lime, if required, shall be applied separately, in the quantity specified, prior to the fertilizing and seeding operations. Not more than 220 pounds (100 kg) of lime shall be added to and mixed with each 100 gallons (380 liters) of water. Seed and fertilizer shall be mixed together in the relative proportions specified, but not more than a total of 220 pounds (100 kg) of these combined solids shall be added to and mixed with each 100 gallons (380 liters) of water.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water shall not be used at any time. The Contractor shall identify to the Engineer all sources of water at least 2 weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source which is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 2 hours from the time they were mixed or they shall be wasted and disposed of at locations acceptable to the Engineer.

d. Spraying. Lime, if required, shall be sprayed only upon previously prepared seedbeds. After the applied lime mixture has dried, the lime shall be worked into the top 3 inches (8 cm), after which the seedbed shall again be properly graded and dressed to a smooth finish.

Mixtures of seed and fertilizer shall only be sprayed upon previously prepared seedbeds on which the lime, if required, shall already have been worked in. The mixtures shall be applied by means of a high-pressure spray which shall always be directed upward into the air so that the mixtures will fall to the ground like rain in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner as might produce erosion or runoff.

Particular care shall be exercised to insure that the application is made uniformly and at the prescribed rate and to guard against misses and overlapped areas. Proper predetermined quantities of the mixture in accordance with specifications shall be used to cover specified sections of known area. Checks on the rate and uniformity of application may be made by observing the degree of wetting of the ground or by distributing test sheets of paper or pans over the area at intervals and observing the quantity of material deposited thereon.

Surfaces are to be mulched as indicated by the plans or directed by the Engineer. Seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

**901-3.4 MAINTENANCE OF SEEDED AREAS.** The Contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by re-grading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work done out of season, it will be required that the Contractor establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. If at the time when the contract has been otherwise completed it is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the unaccepted portions of the areas seeded out of season will be withheld until such time as these requirements have been met.

## **METHOD OF MEASUREMENT**

**901-4.1** The quantity of seeding to be paid for shall be the number of units acres measured on the ground surface, completed and accepted.

## **BASIS OF PAYMENT**

**901-5.1** Payment shall be made at the contract unit price per acre or fraction thereof, which price and payment shall be full compensation for furnishing and placing all material and for all labor, equipment, tools, and incidentals necessary to complete the work prescribed in this item.

Payment will be made under:

Item T-901-5.1      Turfing (Seeding, Fertilizing and Mulching)—per acre

**MATERIAL REQUIREMENTS**

ASTM D 977              Emulsified Asphalt

Fed. Spec. JJJ-S-181B      Agricultural Seeds

Fed. Spec. O-F-241D      Commercial Mixed Fertilizer

**END ITEM T-901**

## **Modifications to Part 11**

### **Lighting Installation**

The standard specifications of Part 11, Lighting Installation, shall be modified and superseded as follows. The item section numbers shown correspond to the item and section numbers in the specifications.

#### **Item L-101 Airport Rotating Beacons**

Delete item in its entirety.

#### **Item L-102 Hazard Beacons**

Delete item in its entirety.

#### **Item L-103 Airport Beacon Towers**

Delete item in its entirety.

#### **Item L-107 Airport 8-foot and 12-foot Wind Cones**

Delete item in its entirety.

#### **Item L-108 Underground Power Cable for Airports**

**1.1** Delete "and installing power cables direct buried" and "It includes excavation and backfill of trench for direct buried cables only".

**2.4 a.** Delete paragraph in its entirety.

**2.4 b.** Add "The heat shrinkable tubing for each L-823 connector shall consist of Raychem #ALK-L823 Airport Lighting Splice Kit (or approved equal). Splices permitted only at light fixtures, signs, or junction boxes."

**2.4 c.** Add "The heat shrinkable tubing for each L-823 connector shall consist of Raychem #ALK-L823 Airport Lighting Splice Kit (or approved equal). Splices permitted only at light fixtures, signs, or junction boxes."

**2.4 d.** Delete "Taped or "and add "contractor must use "SKV heat shrink factory kits" over taped splices if used on project".

**3.3** Delete paragraphs 1, 2, and 3 in their entirety and add "Installation of Cable and Conduit in Trenches".

**3.3 a.** Delete first four sentences. Change "cable trenches" to "cable and conduit trenches" and change "18 inches" to "24 inches" in fifth sentence.

**3.3 a.(1)** Change "36" to "60".

**3.3 a.(2)** Change "cable depth" to "cable and conduit depth" and change "42 inches unless otherwise" to "60 inches unless a greater depth is otherwise".

**3.3 a.(3)** Add "minimum cable and conduit depth under a runway or taxiway, shall 60 inches unless a greater depth is otherwise specified".

**3.3** Delete remainder of section.

**3.4** Delete in its entirety.

**3.5 a.** Delete in its entirety.

**3.5 b.** Add "The heat shrinkable tubing for each L-823 connector shall consist of Raychem #ALK-L823 Airport Lighting Splice Kit (or approved equal). Splices permitted only at light fixtures, signs, or junction boxes."

**3.5 c.** Add "The heat shrinkable tubing for each L-823 connector shall consist of Raychem #ALK-L823 Airport Lighting Splice Kit (or approved equal). Splices permitted only at light fixtures, signs, or junction boxes."

**3.5 d.** Delete "Taped or" and delete "taped". Add "contractor must use "SKV heat shrink factory kits" over taped splices if used on project".

**3.6** Add "The minimum size of bare copper counterpoise wire shall be No. 6 AWG." Change "welded to ground rods installed as shown on the plans but" to "welded to copper or copper-clad ground rods installed". Add "The ground rods shall be of the length and diameter specified in the plans, but in no case shall they be less than 10-feet long nor less than 3/4 inch diameter. Interior building grounding shall be securely attached using mechanical connections."

**5.1** Delete all pay items in their entirety. Item shall be included with "S" pay items as noted.

#### **Item L-109 Airport Transformer Vault and Vault Equipment**

Delete item in its entirety.

#### **Item L-110 Airport Underground Electrical Duct Banks and Conduits**

**1.1** Delete last two sentences.

**2.3 b.** Change "Schedule 40" to "Schedule 80".

**2.7** Change "Schedule 40" to "Schedule 80".

**3.1** Delete "Where under pavement, the top of the duct bank shall not be less than 18 inches below the subgrade." Add "No duct bank or underground conduit shall be less than 24 inches below finished grade. Where under pavement, the top of the conduit or duct bank shall not be less than 60 inches below finished grade or less than 18 inches below pavement subgrade, whichever is of greater depth."

**3.7** Delete third, fourth, and fifth sentences.

**4.2** Add "The quantity of 2" SCH 40 PVC conduit installed in earth completed and accepted, including trench and backfill with the designated material and to be paid for under this item shall be the number of linear feet installed including all excavation, backfilling, restoration, measured in place, complete and accepted."

**4.3** Add "The quantity of 4" SCH 80 PVC conduit installed in earth and to be paid for under this item shall be the number of linear feet installed as measured between pits including all excavation, backfilling, restoration, counterpoise lashed to exterior of conduit, measured in place, complete and accepted."

**4.4** Add "The quantity of Type I junction boxes to be paid for under this item shall consist of the number of junction boxes constructed using a Quazite box with heavy duty cover, a 3/4 X 10' ground rod for grounding of the counterpoise conductors, a concrete apron and all required 4"



SCH 80 PVC between the existing installed 4" SCH 80 PVC ducts and the duct junction box, in accordance with the detail shown in the plans including all excavation, backfilling and restoration, in place, complete and accepted."

**4.5** The quantity of Type II duct junction boxes to be paid for under this item shall consist of the number of duct junction boxes constructed using a type L-867 class 1 size D light base with solid steel cover and a concrete apron in accordance with the detail shown in the plans including all excavation, backfilling and restoration, in place, complete and accepted.

**5.1** Delete pay items in their entirety. Items shall be included in "S" pay items as noted.

**Item L-115 Electrical Manholes and Junction Structures**

Delete item in its entirety.

**Item L-119 Airport Obstruction Lights**

Delete item in its entirety.

**END OF ITEM PART 11-MOD**

## **Part 11 – Lighting Installation**

### **Item L-101 Airport Rotating Beacons**

#### **DESCRIPTION**

**101-1.1** This item shall consist of furnishing and installing airport rotating beacons. This work shall include the mounting, leveling, wiring, painting, servicing, and testing of the beacon and all materials and incidentals necessary to place the beacons in operating condition as a completed unit to the satisfaction of the Engineer. This item shall include a mounting platform if specified in the plans.

#### **EQUIPMENT AND MATERIALS**

##### **101-2.1 GENERAL.**

- a.** Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified and listed under Advisory Circular (AC) 150/5345-53, Airport Lighting Equipment Certification Program.
- b.** All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer.
- c.** Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.
- d.** All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components or electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.
- e.** The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the Contract Documents plans and specifications. [The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section.] The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

**101-2.2 BEACON.** The beacon shall meet the requirements of AC 150/5345-12, Specification for Airport and Heliport Beacons.

**101-2.3 PANEL BOARDS AND BREAKERS.** Panel boards and breakers shall conform to the requirements of Fed. Spec. W-P-115.

**101-2.4 WEATHERPROOF CABINETS.** The weatherproof cabinets shall conform to National Electrical Manufacturers Association Standards and shall be constructed of steel not less than No. 16 USS gauge.

**101-2.5 WIRE.** Wire in conduit rated up to 5,000 volts shall conform to AC 150/5345-7, Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits for Rubber Insulated Neoprene Covered Wire, or Fed. Spec. J-C-30, Type RHW, for rubber insulated fibrous covered wire. For ratings up to 600 volts, the thermoplastic wire conforming to Fed. Spec. J-C-30, Types TW, THW, and THWN, shall be used. The wires shall be of the type, size, number of conductors, and voltage shown in the plans or in the proposal.

**101-2.6 CONDUIT.** Rigid steel conduit and fittings shall conform to the requirements of Underwriters Laboratories Standard 6, 514, and 1242.

**101-2.7 PAINT.**

a. Priming paint for ungalvanized metal surfaces shall be a high solids alkyd primer conforming to TT-P-664D.

b. Priming paint for galvanized metal surfaces shall be zinc dust-zinc oxide primer paint conforming to MIL-DTL-24441/19B. If necessary, add not more than ½ pint (0.06 liter) of turpentine to each gallon (liter).

c. Orange paint for the body and the finish coats on metal and wood surfaces shall consist of a ready-mixed non-fading paint meeting the requirements of Fed. Spec. TT-E-489. The color shall be in accordance with Federal Standard 595, Aviation Gloss Orange Number 12197.

d. White paint for body and finish coats on metal and wood surfaces shall be ready-mixed paint conforming to the Master Painter's Institute, Reference #9, Exterior Alkyd, Gloss, VOC Range E2.

e. Priming paint for wood surfaces shall be mixed on the job by thinning the above-specified orange or white paint with ½ pint (0.06 mm) of raw linseed oil to each gallon (liter).

## CONSTRUCTION METHODS

**101-3.1. PLACING THE BEACON.** The beacon shall be mounted on a beacon tower, platform, or building roof as shown in the plans.

**101-3.2 HOISTING AND MOUNTING.** The beacon shall be hoisted to the mounting platform by using suitable slings and hoisting tackle. Before fastening the beacon to the mounting platform, the mounting holes shall be checked for correct spacing. Beacon base or mounting legs shall not be strained or forced out of position to fit incorrect spacing of mounting holes. The beacon base shall be raised first, set in position, and bolted in place. The drum shall then be raised and assembled to the base.

**101-3.3 LEVELING.** After the beacon has been mounted in place, it shall be accurately leveled following manufacturer's instructions. The leveling shall be checked in the presence of the Engineer and shall be to the Engineer's satisfaction.

**101-3.4 SERVICING.** Before placing the beacon in operation, the Contractor shall check the manufacturer's manual for proper servicing requirements. Follow the manufacturer's servicing requirements for each size beacon.

**101-3.5 BEAM ADJUSTMENT.** After the beacon has been mounted and leveled, the elevation of the beams shall be adjusted. The final beam adjustments shall be made at night so that results can be readily observed. The beams shall be adjusted to the elevation directed by the Engineer or as shown in the plans, except that, in no case shall the elevation of the beams be less than 2 degrees above the horizontal.

**101-3.6 BEACON MOUNTING PLATFORM.** Where the beacon is to be mounted at a location other than the beacon tower and where a special mounting platform is required, the construction of this mounting platform and any necessary lightning protection equipment shall be in accordance with the details shown in the plans.

**101-3.7 WIRING.** The Contractor shall furnish all necessary labor and materials and shall make complete above ground electrical connections in accordance with the wiring diagram furnished with the project plans. The electrical installation shall conform to the requirements of the latest edition of National Fire Protection Association, NFPA-70, National Electric Code.

Copies of the National Electric Code may be obtained from the National Fire Protection Associations, Inc., One Batterymarch Park, Quincy, Massachusetts 02269.

If underground cable for the power feed from the transformer vault to the beacon site and duct for this cable installation is required, the cable, ground rods and duct shall be installed in accordance with and paid for as described in Item L-108, Underground Power Cable for Airports, and Item L-110, Airport Underground Electrical Duct Banks and Conduit.

Unless otherwise specified, the Contractor shall connect the tell-tale relay mechanism in the beacon to energize the tower obstruction light circuit when failure of the beacon service (primary) lamp occurs.

If lightning protection is specified in the plans or proposal as a part of this item, it shall be installed in accordance with 103-2.3 in Item L-103, Airport Beacon Towers.

**101-3.8 PANEL AND CABINET.** Unless otherwise specified, the Contractor shall furnish and install at the top of the beacon tower or mounting platform a circuit-breaker panel consisting of four 15-ampere breakers mounted in a weather-proof cabinet to provide separate protection for the circuits to the beacon lamps, motor, obstruction lights, and other equipment. The cabinet shall be located on the side of the beacon platform, as directed by the Engineer.

**101-3.9 CONDUIT.** All exposed wiring shall be run in not less than ¾ in (19 mm) galvanized rigid steel conduit. No conduit shall be installed on top of a beacon platform floor. All conduit shall be installed to provide for drainage. If mounted on a steel beacon tower, the conduit shall be fastened to the tower members with “wraplock” straps, clamps, or approved fasteners, spaced approximately 5 feet (150 cm) apart. The conduit shall be fastened to wooden structures with galvanized pipe straps and with galvanized wood screws not less than No. 8 or less than 1-¼ in (31 mm) long. There shall be at least two fastenings for each 10 ft (3 m) length.

**101-3.10 BOOSTER TRANSFORMER.** If shown in the plans or specified in job specifications, a booster transformer to compensate for voltage drop to the beacon shall be installed in a suitable weatherproof housing under or on the tower platform or at the base of the tower. The installation shall be as indicated in the plans and described in the proposal. If the booster transformer is required for installation remote from the beacon, it shall be installed in accordance with and paid for [ ].

**101-3.11 PHOTOELECTRIC CONTROL.** If shown in the plans or specified in job specifications, the Contractor shall furnish and install an automatic control switch at the location indicated in the plans. The switch shall be a photoelectric type. It shall be a standard commercially available unit that will energize when the northern sky illuminance falls below 60 foot candles (645.8 lux) but before reaching a level of 35 foot candles (367.7 lux). The photoelectric switch should de-energize when the northern sky illuminance rises to a level of not more than 60 foot candles (645.9 lux). It shall be installed, connected, and adjusted in accordance with the manufacturer’s instructions.

**101-3.12 OBSTRUCTION LIGHTS.** Unless otherwise specified, the Contractor shall install on the top of the beacon tower or mounting platform two L-810 obstruction lights on opposite corners. These lights shall be mounted on conduit extensions to a height of not less than 4 in (100 mm) above the top of the beacon. They shall be connected in series into the tell-tale circuit with the necessary relay and wiring connections.

**101-3.13 PAINTING.** If construction of a wooden mounting platform is stipulated in the proposal as part of this item, all wooden parts of the platform shall be given one priming coat of white or aviation-orange paint after fabrication but before erection and one body and one finish coat of aviation-orange paint after erection. Steel mounting platforms shall be given one priming coat of corrosion-inhibiting primer before erection and one body and one finish coat of aviation-orange paint after erection. All equipment installed under this contract and exposed to the weather shall be given one body and one finish coat of aviation-orange or white paint as required. This shall include beacon (except glass surfaces), beacon base, breaker cabinet, all conduit, and transformer cases. It shall not include air terminals or obstruction light globes.

The paint shall be applied uniformly in the proper consistency by skilled painters. The finished paint shall be free from sags, holidays, and smears. Each coat of paint shall be given ample time to dry and harden before the next coat of paint is applied. A minimum of 3 days shall be allowed for drying on wood surfaces, and a minimum of 4 days shall be allowed for drying on metal surfaces. Painting shall not be done in cold, damp, foggy, dusty, or frosty atmospheres, or when air temperature is below 40° F (4° C), nor started when the weather forecast indicates such conditions for the day.

All surfaces shall be cleaned before painting. The surfaces shall be dry and free from scale, grease, rust, dust, and dirt when paint is applied. All knots in wood surfaces shall be covered with shellac immediately before applying the priming coat of paint. Nail holes and permissible imperfections shall be filled with putty. The ready-mixed paint shall be thinned for the priming and body coats in accordance with the manufacturer’s recommendations. In the absence of such recommendations, the following shall apply:

a. Body coats (for both wood and steel surfaces) - add ½ pint (0.06 liter) of turpentine to each gallon (liter) of ready-mixed paint for body coats.

b. Finish coats (for both wood and steel surfaces) the ready-mixed paint shall be used as it comes from the container for finish coats.

**101-3.14 TESTING.** The installation shall be fully tested in operation as a completed unit prior to acceptance. These tests shall include operation of the lamp-changer operation and taking megger and voltage readings. The insulation resistance to ground of the beacon supply circuit shall be not less than 50 megohms. Testing equipment shall be furnished by the Contractor. Tests shall be conducted in the presence of the Engineer and shall be to the Engineer's satisfaction.

#### METHOD OF MEASUREMENT

No separate Method or Measurement for Payment.

#### MATERIAL REQUIREMENTS

|                                      |                                                                                                                                                  |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| AC 150/5345-7                        | Specification for L-824 Underground Cable for Airport Lighting Circuits                                                                          |
| AC 150/5345-12                       | Specification for Airport and Heliport Beacons                                                                                                   |
| FED SPEC J-C-30                      | Cable and Wire, Electrical (Power, Fixed Installation) (cancelled; replaced by A-A-59544 Cable and Wire, Electrical (Power, Fixed Installation)) |
| FED SPEC TT-E-489                    | Enamel, Alkyd, Gloss, Low VOC Content                                                                                                            |
| FED SPEC TT-P-664D                   | Primer Coating, Alkyd, Corrosion-Inhibiting, Lead and Chromate Free, VOC-Compliant                                                               |
| FED SPEC W-P-115                     | Panel, Power Distribution                                                                                                                        |
| FED STD 595                          | Colors Used in Government Procurement                                                                                                            |
| MIL-P-24441/19B                      | Paint, Epoxy-Polyamide, Zinc Primer, Formula 159, Type III                                                                                       |
| Underwriters Laboratories Standard 6 | Rigid Metal Conduit                                                                                                                              |
| Underwriters Laboratories            | Fittings for Conduit and Outlet Boxes                                                                                                            |

Standard 514

Underwriters Laboratories  
Standard 1242

Intermediate Metal Conduit

NFPA-70

National Electric Code

NFPA-780

Standard for the Installation of Lightning Protection Systems

Master Painter's Institute

END OF ITEM L-101

## **Item L-102 Hazard Beacons**

### **DESCRIPTION**

**102-1.1** This item shall consist of furnishing and installing a hazard flashing beacon in accordance with these specifications. This work shall include the mounting, leveling, wiring, servicing, painting, and testing of the beacon and all materials and incidentals necessary to place it in operating condition as a completed unit to the satisfaction of the Engineer. This item shall include a mounting platform if specified in the plans.

### **EQUIPMENT AND MATERIALS**

#### **102-2.1 GENERAL.**

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified and listed under Advisory Circular (AC) 150/5345-53, Airport Lighting Equipment Certification Program.

b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when requested by the Engineer.

c. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

d. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

e. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. [The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section.] The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.



**102-2. BEACON.** The beacon shall conform to the requirements of AC 150/5345-43, Specification for Obstruction Lighting Equipment.

**102-2.3 PANEL BOARDS AND BREAKERS.** Panel boards and breakers shall conform to the requirements of Fed. Spec. W-P-115.

**102-2.4 WEATHERPROOF CABINETS.** Weatherproof cabinets shall conform to National Electrical Manufacturers Association Standards and shall be constructed of steel not less than No. 16 USS gauge.

**102-2.5 WIRE.** Wire in conduit rated up to 5,000 volts shall conform to AC 150/5345-7, Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits for Rubber Insulated Neoprene Covered Wire, or Fed. Spec. J-C 30, Type RHW, for rubber insulated fibrous covered wire. For ratings up to 600 volts, thermoplastic wire conforming to Fed. Spec. J-C-30, Types TW, THW, and THWN shall be used. The wires shall be of the type, size, number of conductors, and voltage shown in the plans or in the proposal.

**102-2.6 CONDUIT.** Rigid steel conduit and fittings shall conform to the requirements of Underwriters Laboratories Standard 6, 514, and 1242.

**102-2.7 PAINT**

a. Priming paint for ungalvanized metal surfaces shall be a high solids alkyd primer conforming to TT-P-664D.

b. Priming paint for galvanized metal surfaces shall be zinc dust-zinc oxide primer paint, conforming to MIL-DTL-24441/19B. If necessary, add not more than ½ pint (0.06 liters) of turpentine to each gallon (liter).

c. Orange paint for the body and the finish coats on metal and wood surfaces shall consist of a ready-mixed non-fading paint meeting the requirements of Fed. Spec. TT-E-489. The color shall be in accordance with Federal Standards 595, Aviation Gloss Orange Number 12197.

d. White paint for body and finish coats on metal and wood surfaces shall be ready-mixed paint conforming to the Master Painter's Institute, Reference #9, Exterior Alkyd, Gloss, VOC Range E2.

e. Priming paint for wood surfaces shall be mixed on the job by thinning the above specified orange or white paint by adding ½ pint (0.06 liters) of raw linseed oil to each gallon (liter).

**102-2.8 FLASHER.** The beacon flasher shall be a standard commercially available unit designed for the service intended. The mechanism in the flasher shall be designed to flash not more than 40 and not less than 12 flashes per minute. The flashing switch shall be of the mercury contact-type encapsulated in nonbreakable plastic. The entire unit shall be housed in a weatherproof cabinet.

CONSTRUCTION METHODS

**102-3.1 PLACING THE BEACON.** The beacon shall be mounted on a beacon tower, platform, building roof, or on a pole as shown in the plans.

**102-3.2 MOUNTING AND LEVELING.** The support to which the beacon is fastened shall be accurately leveled before mounting the beacon.

**102-3.3 FLASHER.** If shown in plans or specified in job specifications, a separate flashing mechanism for the beacon shall be installed adjacent or near the beacon. The mechanism in this flasher shall be designed to flash not more than 40 and not less than 12 flashes per minute.

**102-3.4 MOUNTING PLATFORM.** If shown in plans or specified in job specifications, the Contractor shall construct a special mounting platform for the beacon, flasher, and incidental equipment. Design and

materials for the special platform shall be as shown in the plans. This mounting platform may be constructed on top of a steel beacon tower, or wood pole if specified, and shall be as shown in the plans.

**102-3.5 WIRING.** The Contractor shall furnish all necessary labor and materials and shall make complete aboveground electrical connections in accordance with the wiring diagram furnished with the project plans. The electrical installation shall conform to the requirements of the latest edition of National Fire Protection Association, NFPA-70, National Electric Code.

If underground cable for the power feed from the transformer vault to the beacon site and duct for the installation of this cable is required, the cable, ground rods and duct shall be installed in accordance with and paid for as described in Item L-108, Underground Power Cable for Airports, and Item L-110, Airport Underground Electrical Duct Banks and Conduit.

If lightning protection is specified in the plans or proposals as a part of this item, it shall be in accordance with Item L-103, Airport Beacon Towers, paragraphs 103-2.3.

**102-3.6 PANEL AND CABINET.** If shown in plans or specified in job specifications, the Contractor shall furnish and install a circuit breaker panel. The panel shall be of the type and rating indicated in the plans, and it shall be mounted in a weatherproof cabinet. The cabinet shall be located near the beacon or as directed by the Engineer.

**102-3.7 CONDUIT.** All exposed wiring shall be run in not less than  $\frac{3}{4}$  in (19 mm) galvanized rigid steel conduit. No conduit shall be installed on top of a beacon platform floor. All conduit shall be installed to provide for drainage. If mounted on a steel beacon tower, the conduit shall be fastened to the tower members with "wraplock" straps, clamps, or approved fasteners spaced approximately 5 feet (150 cm) apart. Conduit shall be attached to wooden structures with galvanized pipe straps and fastened with galvanized wood screws not less than No. 8 or less than  $1\frac{1}{4}$  in (31 mm) long. There shall be at least two fastenings for each 10 ft (3 m) length.

**102-3.8 BOOSTER TRANSFORMERS.** If shown in plans or specified in job specifications, a booster transformer to compensate for voltage drop to the beacon shall be installed in a suitable weatherproof housing under or on the tower platform or at the base of the tower or pole. The installation shall be as indicated in the plans and described in the proposal. If the booster transformer is required for installation remotely from the beacon, it shall be installed in accordance with and paid for [ ].

**102-3.9 PHOTOELECTRIC CONTROL.** If shown in plans or specified in job specifications, the Contractor shall furnish and install an automatic control switch at the location indicated in the plans. This switch shall be a photoelectric type. It shall be a standard commercially available unit that will energize when the northern sky illuminance falls below 60 foot candles (645.8 lux) but before reaching a level of 35 foot candles (367.7 lux). The photoelectric switch should de-energize when the northern sky illuminance rises to a level of not more than 60 foot candles (645.9 lux). It shall be installed, connected, and adjusted in accordance with the manufacturer's instruction.

**102-3.10 PAINTING.** Wood poles and wooden parts of mounting platforms shall be given one priming coat of white or aviation-orange paint after fabrication but before erection and one body and one finish coat of aviation-orange paint after erection. Steel mounting platforms shall be given one priming coat of corrosion-inhibiting primer before erection and one body and one finish coat of aviation-orange paint after erection. All equipment under this contract and exposed to the weather shall be given one body and one finish coat of aviation-orange or white paint as required. This shall include beacon (except glass surfaces), breaker cabinet, and all conduit and transformer cases. It shall not include air terminals.

The paint shall be applied uniformly in the proper consistency by skilled painters. The finished paint shall be free from sags, holidays, and smears. Each coat of paint shall be given ample time to dry and harden before the next coat of paint is applied. A minimum of 3 days shall be allowed for drying on wood

surfaces and a minimum of 4 days shall be allowed for drying on metal surfaces. Painting shall not be done in cold, damp, foggy, dusty, or frosty atmospheres, or when air temperature is below 40° F (4° C), nor started when the weather forecast indicates such conditions for the day.

All surfaces shall be cleaned before painting. The surfaces shall be dry and free from scale, grease, rust, dust, and dirt when paint is applied. All knots in wood surfaces shall be covered with shellac immediately before applying the priming coat of paint. Nail holes and permissible imperfections shall be filled with putty.

The ready-mixed paint shall be thinned for the priming and body coats in accordance with the manufacturer's recommendations. In the absence of such recommendations, the following shall apply:

a. Body coats (for both wood and steel surfaces) - add ½ pint (0.06 liters) of turpentine to each gallon (liter) of ready-mixed paint for body coats.

b. Finish coats (for both wood and steel surfaces) - the ready-mixed paint shall be used as it comes from the container for finish coats.

**102-3.11 TESTING.** The installation shall be tested in operation as a completed unit prior to acceptance. Tests shall include taking megger and voltage readings. The voltage tolerance for testing shall be as specified by the beacon manufacturer. Testing equipment shall be furnished by the Contractor. The insulation resistance to ground of the beacon supply circuit shall be not less than 50 megohms when measured ungrounded.

Tests shall be conducted in the presence of the Engineer and shall be to the Engineer's satisfaction.

#### METHOD OF MEASUREMENT

No separate Method or Measurement for Payment.

#### MATERIAL REQUIREMENTS

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| AC 150/5345-7   | Specification For L-824 for Underground Electrical Cable for Airport Lighting Circuits                                                          |
| AC 150/5345-43  | Specification for Obstruction Lighting Equipment                                                                                                |
| FED SPEC J-C-30 | Cable and Wire, Electrical (Power, Fixed Installation) (cancelled; replaced by AA-59544 Cable and Wire, Electrical (Power, Fixed Installation)) |

|                                         |                                                                                    |
|-----------------------------------------|------------------------------------------------------------------------------------|
| FED SPEC TT-E-489                       | Enamel, Alkyd, Gloss, Low VOC Content                                              |
| FED SPEC TT-P-664D                      | Primer Coating, Alkyd, Corrosion-Inhibiting, Lead and Chromate Free, VOC-Compliant |
| MIL-DTL-24441/19B                       | Paint, Epoxy-Polyamide, Zinc Primer, Formula 159, Type III                         |
| FED SPEC W-P-115                        | Panel, Power Distribution                                                          |
| FED STD 595                             | Colors Used in Government Procurement                                              |
| Underwriters Laboratories Standard 6    | Rigid Metal Conduit                                                                |
| Underwriters Laboratories Standard 514  | Fittings for Conduit and Outlet Boxes                                              |
| Underwriters Laboratories Standard 1242 | Intermediate Metal Conduit                                                         |
| NFPA-70                                 | National Electric Code                                                             |
| NFPA-780                                | Standard for the Installation of Lightning Protection Systems                      |
| Master Painter's Institute              |                                                                                    |

END OF ITEM L-102

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## **Item L-103 Airport Beacon Towers**

### **DESCRIPTION**

**103-1.1** This item shall consist of furnishing and installing an airport beacon tower of the type shown in the plans, in accordance with these specifications. This work shall include the clearing of the site, erection of the tower, installation of lightning protection, painting, and all incidentals necessary to place it in operating condition as a completed unit to the satisfaction of the Engineer.

### **EQUIPMENT AND MATERIALS**

#### **103-2.1 GENERAL.**

**a.** All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer.

**b.** Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

**c.** All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

**d.** The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. [The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section.] The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

**e.** All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

**103-2.2 TOWER.** The beacon tower shall conform to the requirements of Advisory Circular (AC) 150/5340-30, Design and Installation Details for Airport Visual Aids, Chapter 6.

**103-2.3 LIGHTNING PROTECTION.** Lightning protection shall comply with NFPA-780, Standard for the Installation of Lightning Protection Systems. All materials shall comply with Class II requirements regardless of tower height. Ground rods and underground cables shall be installed in accordance with and paid for as described in Item L-108, Underground Power Cable for Airports.

**103-2.4 PAINT.**

a. Priming paint for galvanized steel towers shall be zinc dust-zinc oxide primer paint conforming to MIL-DTL-24441/19B. If necessary, add not more than 1/2 pint (0.06 liter) of turpentine to each gallon (liter).

b. Priming paint for ungalvanized steel towers shall be a high solids alkyd primer conforming to the Master Painter's Institute, Reference #9, Exterior Alkyd, Gloss, VOC Range E2.

c. Orange paint for the body and finished coats on metal and wood surfaces shall consist of a ready-mixed non-fading paint meeting the requirements of Fed. Spec. TT-E-489. The color shall be in accordance with Federal Standard 595, Aviation Gloss Orange Number 12197.

d. White paint for steel tower shall be ready-mixed paint conforming to Commercial Item Description A-A-3067.

## CONSTRUCTION METHODS

**103-3.1 CLEARING AND GRADING.** The site on which the beacon tower is to be erected shall be cleared and leveled. All trees and brush shall be removed from the area within a distance of 25 feet (7.5 m) from the tower or as called for in the plans. Stumps shall be removed to a depth of 18 in (45 cm) below finished grade and the excavation filled with earth and tamped. If a transformer vault or other structure is included as part of the installation, the area shall be cleared to a distance of 25 feet (7.5 m) from these structures. The ground near the tower shall be leveled to permit the operation of mowing machines. The leveling shall extend at least 2 feet (60 cm) outside the tower legs. All debris removed from the tower site shall be disposed of by the Contractor to the satisfaction of the Engineer and in accordance with Federal, state, or local regulations.

**103-3.2 EXCAVATION AND FILL.** Excavation for the tower footings shall be carried to a minimum of 4 in (100 mm) below the footing depth. The excess excavation below the footing depth shall then be backfilled with gravel or crushed stone and compacted to the required level. The footing plates shall be installed, and a thickness of not less than 18 in (45 cm) of the same gravel or crushed stone shall be placed immediately above the footing plates in layers of not over 6 in (150 mm). Each layer above the footing plates shall be thoroughly tamped in place. The remainder of the backfill may be of excavated earth placed in layers not to exceed 6 in (150 mm). Each layer shall be thoroughly compacted by tamping.

Where solid rock is encountered, which prevents the carrying of the foundation legs to the required depth but which is of sufficient strength to use holddown bolts, the tower anchor posts shall be cut off at the required length and the holddown bolts shall be installed as indicated in the plans with the approval of the Engineer. Each tower leg shall be anchored to the rock by means of two 7/8 in (21 mm) diameter by 3 ft (90 cm) long expansion or split bolts and shall be grouted with neat Portland cement into holes drilled into the natural rock. Except as required for rock foundations, the footing members shall not be cut off or shortened. If excavated material is of such character that it will not readily compact when backfilled, the Engineer may order the excavation backfilled with concrete or other suitable material.

The concrete footing for tubular beacon towers shall be installed in accordance with the manufacturer's recommendations. Portions of the footing in the topsoil layer shall not be included in the footing height.

**103-3.3 ERECTION.** Detail erection drawings furnished by the manufacturer shall be strictly followed during construction. All towers shall be erected in sections from the ground up unless otherwise specified. In final assembly, all bolts and fastenings shall be installed, and the structure shall be plumb, true, square, and level. Nuts shall be taken up to a firm bearing after which the bolts shall, if necessary, be cut to proper length to protrude three full threads. Approved locknuts shall be placed on each bolt over the regular nut. Ladder bolts shall be inserted with the head to the outer face of the tower. Diagonal, leg, and handrail bolts shall be installed with nuts on the outer face of the tower, unless otherwise specified. Bent parts shall be straightened before erection without damage to the protective coating. Surfaces abraded or bared of protective coating shall be painted with the proper priming paint as specified in these specifications.

The Contractor shall install the ladder on the side of the tower adjacent to the driveway or most accessible approach to the tower. Tubular beacon towers shall be erected in accordance with the manufacturer's recommendations. The safety cable shall be located on the side of the tower adjacent to the driveway or most accessible approach to the tower.

**103-3.4 LIGHTNING PROTECTION.** The Contractor shall furnish and install an air terminal, down conductor, and at least one ground plate or rod for each beacon tower or as indicated in the plans. The air terminal shall be installed at the top of the tower with the tip of the rod extending not less than 6 in (150 mm) above the top of the beacon.

Down-conductor cables shall be securely fastened to the surface of the tower leg at 5 ft (150 cm) intervals with suitable bronze fasteners having bronze or noncorrosive metal bolts. Sharp turns or bends in the down conductor will not be permitted.

All connections of cable to cable, cable to air terminals, and cable to ground plates or rods shall be made with solderless connectors or noncorrosive metal approved by the engineer and shall be of substantial construction.

The down-conductor cable shall be securely attached to ground rods or plates placed at least 2 feet (60 cm) away from the tower foundations. The ground rod shall be driven into the ground so that the top is at least 6 in (150 mm) below grade. The down-conductor shall be firmly attached to the ground plate or rod by means of a ground connector or clamp. Plates shall be embedded in the area of permanent moisture.

The complete lightning protection installation shall be accomplished to the satisfaction of the Engineer. The resistance to ground of any part of the lightning protection system shall not exceed 25 ohms.

**103-3.5 PAINTING.** The Contractor shall furnish all materials and labor for painting the beacon tower. The color scheme for the steel tower shall be as shown in the plans.

**a. Parts to be Painted.** Tower parts (except those parts to be exposed to earth) shall not be treated or primed before erection. All tower parts placed below ground level or within 12 in (300 mm) above ground level shall be given two coats of approved bituminous paint.

The paint shall be applied uniformly in the proper consistency by skilled painters. The finished paint shall be free from sags, holidays, and smears. Division lines between colors shall be sharply defined. Each coat of paint shall be given ample time to dry and harden before the next coat is applied. A minimum of 4 days shall be allowed for drying on metal surfaces. Painting shall not be done in cold, damp, foggy, dusty, or frosty atmospheres, or when air temperature is below 40° F (4° C), nor started when the weather forecast indicates such conditions for the day.

All surfaces shall be cleaned before painting. The surfaces shall be dry and free from scale, grease, rust, dust, and dirt when paint is applied.



The number of coats of paint applied shall be in accordance with the following instructions:

**b. Steel Towers, Galvanized.** One priming coat of zinc dust-zinc oxide primer after erection and one body and one finish of white or orange paint (as required by the color scheme) shall be applied after erection.

**c. Steel Towers, Not Galvanized.** One priming coat of corrosion-inhibiting primer and one body and one finish coat of white or orange paint (as required by the color scheme) shall be applied after erection.

The above specified orange and white ready-mixed paints shall be thinned for the body coats in accordance with the manufacturer's recommendations. In the absence of such recommendations, the following shall apply:

**d. Body Coats.** Add not more than 1/2 pint (0.06 liters) of turpentine to each gallon (liter) of ready-mixed paint for body coats.

**e. Finish Coats.** The ready-mixed paint shall be used as it comes from the container for finish coats.

#### METHOD OF MEASUREMENT

No separate Method or Measurement for Payment

#### MATERIAL REQUIREMENTS

|                            |                                                               |
|----------------------------|---------------------------------------------------------------|
| AC 150/5340-30             | Design and Installation Details for Airport Visual Aids       |
| FED SPEC TT-E-489          | Enamel, Alkyd, Gloss, Low VOC Content                         |
| FED STD 595                | Colors Used in Government Procurement                         |
| MIL-DTL-24441/19B          | Paint, Epoxy-Polyamide, Zinc Primer, Formula 159, Type III    |
| NFPA-780                   | Standard for the Installation of Lightning Protection Systems |
| Master Painter's Institute |                                                               |

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## **Item L-107 Airport 8-Foot and 12-Foot Wind Cones**

### **DESCRIPTION**

**107-1.1** This item shall consist of furnishing and installing an airport wind cone in accordance with these specifications and in accordance with the dimensions, design, and details shown in the plans.

The work shall include the furnishing and installation of a support for mounting the wind cone, the specified wire, and a concrete foundation. The item shall also include all cable connections, conduit and conduit fittings, the furnishing and installation of all lamps, ground rod and ground connection, the testing of the installation, and all incidentals necessary to place the wind cone in operation as a completed unit to the satisfaction of the Engineer.

### **EQUIPMENT AND MATERIALS**

#### **107-2.1 GENERAL.**

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified and listed under Advisory Circular (AC) 150/5345-53, Airport Lighting Equipment Certification Program.

b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer.

c. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

d. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

e. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. [The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section.] The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

**107-2.2 WIND CONES.** The 8-foot (240 cm) and 12-foot (3.5 m) wind cones and assemblies shall conform to the requirements of AC 150/5345-27, Specification for Wind Cone Assemblies.

**107-2.3 WIRE.** Wire in conduit rated up to 5,000 volts shall conform to AC 150/5345-7, Specification for L-824 Underground Cable for Airport Lighting Circuits for Rubber Insulated Neoprene Covered Wire, or Fed. Spec. J-C-30, Type RHW, for rubber insulated fibrous covered wire. For ratings up to 600 volts, thermoplastic wire conforming to Fed. Spec. J-C-30, Types TW, THW, and THWN, shall be used. The wires shall be of the type, size, number of conductors, and voltage shown in the plans or in the proposal.

**107-2.4 CONDUIT.** Rigid steel conduit and fittings shall conform to the requirements of Underwriters Laboratories Standard 6, 514, and 1242.

**107-2.5 PLASTIC CONDUIT (for use below grade only).** Plastic conduit and fittings shall conform to the requirements of Fed. Spec. W--C-1094 and Underwriters Laboratories Standards UL-651 and shall be one of the following, as shown in the plans:

- a. Type I—Schedule 40 PVC suitable for underground use either direct-buried or encased in concrete.
- b. Type II—Schedule 40 PVC suitable for either above ground or underground use.

Plastic conduit adhesive shall be a solvent cement manufactured specifically for the purpose of gluing the specific type of plastic conduit and fitting.

**107-2.6 CONCRETE.** The concrete for foundations shall be proportioned, placed, and cured in accordance with Item P-610, Structural Portland Cement Concrete.

**107-2.7 PAINT.**

- a. Priming paint for ungalvanized metal surfaces shall be a high solids alkyd primer conforming to TT-P-664D.
- b. Priming paint for galvanized metal surfaces shall be zinc dust-zinc oxide primer paint conforming to MIL-DTL-24441/19B. If necessary, add not more than ½ pint (0.06 liter) of turpentine to each gallon (liter).
- c. Orange paint for the body and the finish coats on metal and wood surfaces shall consist of a ready-mixed non-fading paint meeting the requirements of Fed. Spec. TT-E-489. The color shall be in accordance with Federal Standards 595, Aviation Gloss Orange Number 12197.
- d. White paint for body and finish coats on metal and wood surfaces shall be ready-mixed paint conforming to the Master Painter's Institute, Reference #9, Exterior Alkyd, Gloss, VOC Range E2.
- e. Priming paint for wood surfaces shall be mixed on the job by thinning the above specified aviation-orange or white paint by adding ½ pint (0.06 liter) of raw linseed oil to each gallon (liter).

## CONSTRUCTION METHODS

**107-3.1 INSTALLATION.** The hinged support or hinged pole shall be installed on a concrete foundation as shown in the plans.

**107-3.2 POLE ERECTION.** The Contractor shall erect the pole on the foundation following the manufacturer's requirements and erection details. The pole shall be level and secure.

**107-3.3 ELECTRICAL CONNECTION.** The Contractor shall furnish all labor and materials and shall make complete electrical connections in accordance with the wiring diagram furnished with the project plans. The electrical installation shall conform to the requirements of the latest edition of National Fire Protection Association, NFPA-70, National Electric Code.

If underground cable from the transformer vault to the wind cone site and duct for this cable installation is required, the cable and duct shall be installed in accordance with and paid for as described in Item L-108, Underground Power Cables for Airports, and Item L-110, Airport Underground Electrical Duct Banks and Conduits.

**107-3.4 BOOSTER TRANSFORMER.** If shown in plans or specified in job specifications, a booster transformer to compensate for voltage drop to the lamps shall be installed in a suitable weatherproof housing. The booster transformer shall be installed as indicated in the plans and described in the proposal. If the booster transformer is required for installation remotely from the wind cone, it shall be installed in accordance with and paid for [ ].

**107-3.5 GROUND CONNECTION AND GROUND ROD.** The Contractor shall furnish and install a ground rod, grounding cable, and ground clamps for grounding the "A" frame of the 12 ft (3.5 m) assembly or pipe support of the 8 ft (240 cm) support near the base. The ground rod shall be of the type, diameter and length specified in Item L-108, Underground Power Cable for Airports. The ground rod shall be driven into the ground adjacent to the concrete foundation (minimum distance from foundation of 2 feet) so that the top is at least 6 in (150 mm) below grade. The grounding cable shall consist of No. 4 AWG minima bare stranded copper wire or larger and shall be firmly attached to the ground rod by exothermic welding. The other end of the grounding cable shall be securely attached to a leg of the frame or to the base of the pipe support with non-corrosive metal and shall be of substantial construction. The resistance to ground shall not exceed 25 ohms.

**107-3.6 PAINTING.** Three coats of paint shall be applied (one prime, one body, and one finish) to all exposed material installed under this item except the fabric cone, obstruction light globe, and lamp reflectors. The wind cone assembly, if painted on receipt, shall be given one finish coat of paint in lieu of the three coats specified above. The paint shall meet the requirements of Fed. Spec. TT-E-489. The color shall be in accordance with Federal Standard 595, Aviation Gloss Orange Number 12197.

**107-3.7 LAMPS.** The Contractor shall furnish and install lamps as specified by the manufacturer.

**107-3.8 CHAIN AND PADLOCK.** The Contractor shall furnish and install a suitable operating chain for lowering and raising the hinged top section. The chain shall be attached to the pole support in a manner to prevent the light fixture assembly from striking the ground in the lowered position.

A padlock shall also be furnished by the Contractor on the 8-foot (240 cm) wind cone for securing the hinged top section to the fixed lower section. Keys for the padlock shall be delivered to the Engineer.

#### METHOD OF MEASUREMENT

No separate Method or Measurement for Payment.

## MATERIAL REQUIREMENTS

|                                         |                                                                                                                                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| AC 150/5345-7                           | Specification for L-824 Underground Cable for Airport Lighting Circuits                                                                         |
| AC 150/5345-27                          | Specification for Wind Cone Assemblies                                                                                                          |
| FED SPEC TT-E-489                       | Enamel, Alkyd, Gloss, Low VOC Content                                                                                                           |
| FED SPEC J-C-30                         | Cable and Wire, Electrical (Power, Fixed Installation) (cancelled; replaced by AA-59544 Cable and Wire, Electrical (Power, Fixed Installation)) |
| FED SPEC W-P-115                        | Panel, Power Distribution                                                                                                                       |
| FED STD 595                             | Colors Used in Government Procurement                                                                                                           |
| MIL-DTL-24441/20                        | Paint, Epoxy-Polyamide, Green Primer, Formula 150, Type III                                                                                     |
| Underwriters Laboratories Standard 6    | Rigid Metal Conduit                                                                                                                             |
| Underwriters Laboratories Standard 514  | Fittings For Conduit and Outlet Boxes                                                                                                           |
| Underwriters Laboratories Standard 1242 | Intermediate Metal Conduit                                                                                                                      |
| NFPA-70                                 | National Electric Code                                                                                                                          |
| Master Painter's Institute              |                                                                                                                                                 |

END OF ITEM L-107

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## **Item L-108 Underground Power Cable for Airports**

### **DESCRIPTION**

**108-1.1** This item shall consist of furnishing and installing power cables direct buried and furnishing and/or installing power cables within conduit or duct banks in accordance with these specifications at the locations shown on the plans. It includes excavation and backfill of trench for direct-buried cables only. Also included are the installation of counterpoise wires, ground wires, ground rods and connections, cable splicing, cable marking, cable testing, and all incidentals necessary to place the cable in operating condition as a completed unit to the satisfaction of the Engineer. This item shall not include the installation of duct banks or conduit, trenching and backfilling for duct banks or conduit, or furnishing or installation of any cable for FAA facilities. Requirements and payment for trenching and backfilling for the installation of underground conduit and duct banks is covered under Item L-110 "Airport Underground Electrical Duct Banks and Conduits."

### **EQUIPMENT AND MATERIALS**

#### **108-2.1 GENERAL.**

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be approved under the Airport Lighting Equipment Certification Program described in Advisory Circular (AC) 150/5345-53, current version.

b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when requested by the Engineer.

c. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

d. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.



e. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. [The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section.] The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner. The Contractor shall be responsible to maintain an insulation resistance of 50 megohms minima, (1000 V megger) with isolation transformers connected in new circuits and new segments of existing circuits through the end of the contract warranty period.

**108-2.2 CABLE.** Underground cable for airfield lighting facilities (runway and taxiway lights and signs) shall conform to the requirements of AC 150/5345-7, Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits. Conductor sizes noted above shall not apply to leads furnished by manufacturers on airfield lighting transformers and fixtures.

Wire for electrical circuits up to 600 volts shall comply with Specification L-824 and/or Federal Specification J-C-30 and shall be type THWN-2.

Cable type, size, number of conductors, strand and service voltage shall be as specified on the plans.

**108-2.3 BARE COPPER WIRE (COUNTERPOISE, BARE COPPER WIRE GROUND AND GROUND RODS).** Wire for counterpoise or ground installations for airfield lighting systems shall be No. 6 AWG solid for counterpoise and or No. 6 AWG stranded for ground wire conforming to ASTM B 3 and ASTM B 8, and shall be [bare copper wire] [tinned copper] conforming to the requirements of ASTM D 33.

Ground rods shall be [solid stainless steel] [copper] or [copper-clad steel]. The ground rods shall be of the length and diameter specified on the plans, but in no case shall they be less than 8-feet (240 cm) long nor less than 5/8 in (15 mm) in diameter.

**108-2.4 CABLE CONNECTIONS.** In-line connections of underground primary cables shall be of the type called for on the plans, and shall be one of the types listed below. No separate payment will be made for cable connections.

a. **The Cast Splice.** A cast splice, employing a plastic mold and using epoxy resin equivalent to that manufactured by Minnesota Mining and Manufacturing Company, "Scotchcast" Kit No. 82--B, or as manufactured by Hysol® Corporation, "Hyseal Epoxy Splice" Kit No. E1135, or equivalent, is used for potting the splice is acceptable.

b. **The Field-attached Plug-in Splice.** Figure 3 of AC 150/5345-26, Specification for L-823 Plug and Receptacle, Cable Connectors, employing connector kits, is acceptable for field attachment to single conductor cable. It shall be the Contractor's responsibility to determine the outside diameter of the cable to be spliced and to furnish appropriately sized connector kits and/or adapters and heat shrink tubing with integral sealant.

c. **The Factory-Molded Plug-in Splice.** Specification for L-823 Connectors, Factory-Molded to Individual Conductors, is acceptable.

d. **The Taped or Heat-Shrunk Splice.** Taped splices employing field-applied rubber, or synthetic rubber tape covered with plastic tape is acceptable. The rubber tape should meet the requirements of ASTM D 4388 and the plastic tape should comply with Mil Spec. MIL-I-24391 or Fed. Spec. A-A-55809.

Heat shrinkable tubing shall be heavy-wall, self-sealing tubing rated for the voltage of the wire being spliced and suitable for direct-buried installations. The tubing shall be factory coated with a thermoplastic adhesive-sealant that will adhere to the insulation of the wire being spliced forming a moisture- and dirt-proof seal. Additionally, heat shrinkable tubing for multi-conductor cables, shielded cables, and armored cables shall be factory kits designed for the application. Heat shrinkable tubing and tubing kits shall be manufactured by Tyco Electronics/ Raychem Corporation, Energy Division, or approved equivalent.

In all the above cases, connections of cable conductors shall be made using crimp connectors using a crimping tool designed to make a complete crimp before the tool can be removed. All L-823/L-824 splices and terminations shall be made in accordance with the manufacturer's recommendations and listings.

All connections of counterpoise, grounding conductors and ground rods shall be made by the exothermic process or approved equivalent, except the base can ground clamp connector shall be used for attachment to the base can. All exothermic connections shall be made in accordance with the manufacturer's recommendations and listings.

**108-2.5 SPLICER QUALIFICATIONS.** Every airfield lighting cable splicer shall be qualified in making cable splices and terminations on cables rated above 5,000 volts AC. The Contractor shall submit to the Engineer proof of the qualifications of each proposed cable splicer for the cable type and voltage level to be worked on. Cable splicing/terminating personnel shall have a minimum of three (3) years continuous experience in terminating/splicing medium voltage cable.

**108-2.6 CONCRETE.** Concrete for cable markers shall conform to Specification Item P-610, "Structural Portland Cement Concrete."

**108-2.7 FLOWABLE BACKFILL.** Flowable material used to backfill trenches for power cable trenches shall conform to the requirements of Item P-153 "Controlled Low Strength Material".

**108-2.8 CABLE IDENTIFICATION TAGS.** Cable identification tags shall be made from a non-corrosive material with the circuit identification stamped or etched onto the tag. The tags shall be of the type as detailed on the plans.

**108-2.9 TAPE.** Electrical tapes shall be Scotch Electrical Tapes – number Scotch 88 (1-1/2" wide) and Scotch 130C linerless rubber splicing tape (2" wide), as manufactured by the Minnesota Mining and Manufacturing Company, or approved equivalent.

**108-2.10 ELECTRICAL COATING.** Scotchkote™ shall be as manufactured by Minnesota Mining and Manufacturing Company, or approved equivalent.

**108-2.11 EXISTING CIRCUITS.** Whenever the scope of work requires, connection to an existing circuit, the circuit's insulation resistance shall be tested, in the presence of the Engineer. The test shall be performed in accordance with this item and prior to any activity affecting the respective circuit. The Contractor shall record the results on forms acceptable to the engineer. When the work affecting the circuit is complete, the circuit's insulation resistance shall be checked again, in the presence of the Engineer. The Contractor shall record the results on forms acceptable to the engineer. The second reading shall be equal to or greater than the first reading or the Contractor shall make the necessary repairs to the circuit to bring the second reading above the first reading. All repair costs including a complete replacement of the L-823 connectors, L-830 transformers and L-824 cable, if necessary, shall be borne by the Contractor. All test results shall be submitted in the Operation and Maintenance (O&M) Manual.

## CONSTRUCTION METHODS

**108-3.1 GENERAL.** The Contractor shall install the specified cable at the approximate locations indicated on the plans. Unless otherwise shown on the plans, all cable required to cross under pavements expected to carry aircraft loads shall be installed in concrete encased duct banks. Wherever possible, cable shall be run without splices, from connection to connection.

Cable connections between lights will be permitted only at the light locations for connecting the underground cable to the primary leads of the individual isolation transformers. The Contractor shall be responsible for providing cable in continuous lengths for home runs or other long cable runs without connections, unless otherwise authorized in writing by the Engineer or shown on the plans.

In addition to connectors being installed at individual isolation transformers, L-823 cable connectors for maintenance and test points shall be installed at locations shown on the plans. Cable circuit identification markers shall be installed on both sides of the L-823 connectors installed or at least once in each access point where L-823 connectors are not installed.

Provide not less than 3 feet of cable slack on each side of all connections, isolation transformers, light units, and at points where cable is connected to field equipment. Where provisions must be made for testing or for future above grade connections, provide enough slack to allow the cable to be extended at least 1 ft vertically above the top of the access structure. This requirement also applies where primary cable passes through empty base cans, junction and access structures to allow for future connections, or as designated by the Engineer.

**108-3.2 INSTALLATION IN DUCT BANKS OR CONDUITS.** This item includes the installation of the cable in duct banks or conduit as described below. The maximum number and voltage ratings of cables installed in each single duct or conduit, and the current-carrying capacity of each cable shall be in accordance with the latest National Electric Code, or the code of the local agency or authority having jurisdiction.

The Contractor shall make no connections or splices of any kind in cables installed in conduits or duct banks.

Unless otherwise designated in the plans, where ducts are in tiers, use the lowest ducts to receive the cable first, with spare ducts left in the upper levels. Check duct routes prior to construction to obtain assurance that the shortest routes are selected and interferences are avoided.

Duct banks or conduits shall be installed as a separate item in accordance with Item L-110, "Airport Underground Electrical Duct Banks and Conduit." The Contractor shall run a mandrel through duct banks or conduit prior to installation of cable to insure that the duct bank or conduit is open, continuous and clear of debris. Mandrel size shall be compatible with conduit size. The Contractor shall swab out all conduits/ducts and clean base can, manhole, etc. interiors IMMEDIATELY prior to pulling cable. Once cleaned and swabbed the base cans and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, base cans, manholes, etc. is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be recleaned at the Contractor's expense. All accessible points shall be kept closed when not installing cable. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the Engineer of any blockage in the existing ducts. The cable shall be installed in a manner to prevent harmful stretching of the conductor, injury to the insulation, or damage to the outer protective covering. The ends of all cables shall be sealed with moisture-seal tape providing moisture-tight mechanical protection with minimum bulk, or alternately, heat shrinkable tubing before pulling into the conduit and it shall be left sealed until connections are made. Where more than one cable is to be installed in a conduit, all cable shall be pulled in the conduit at the same time. The pulling of a cable through duct banks or conduits may be accomplished by hand winch or power winch with the use of

cable grips or pulling eyes. Maximum pulling tensions shall be governed by cable manufacturer's recommendations. A non-hardening lubricant recommended for the type of cable being installed shall be used where pulling lubricant is required.

Contractor shall submit pulling tension values to the Engineer prior to any cable installation. If required by the Engineer, pulling tension values for cable pulls shall be monitored by a dynamometer in the presence of the Engineer. Cable pull tensions shall be recorded by the Contractor and reviewed by the Engineer. Cables exceeding the maximum allowable pulling tension values shall be removed and replaced by the Contractor at the Contractor's expense.

The manufacturer's minimum bend radius or the NEC requirements whichever is more restrictive shall apply. Cable installation, handling and storage shall be per manufacturer's recommendations. During cold weather, particular attention shall be paid to the manufacturer's minimum installation temperature. Cable shall not be installed when the temperature is at or below the manufacturer's minimum installation temperature. At the Contractor's option, the Contractor may submit a plan, for review by the Engineer, for heated storage of the cable and maintenance of an acceptable cable temperature during installation when temperatures are below the manufacturer's minimum cable installation temperature.

Cable shall not be dragged across base can or manhole edges, pavement or earth. When cable must be coiled, lay cable out on a canvas tarp or use other appropriate means to prevent abrasion to the cable jacket.

**108-3.3 INSTALLATION OF DIRECT-BURIED CABLE IN TRENCHES.** Unless otherwise specified, the Contractor shall not use a cable plow for installing the cable. Cable shall be unreeled uniformly in place alongside or in the trench and shall be carefully placed along the bottom of the trench. The cable shall not be unreeled and pulled into the trench from one end. Slack cable sufficient to provide strain relief shall be placed in the trench in a series of S curves. Sharp bends or kinks in the cable shall not be permitted.

Where cables must cross over each other, a minimum of 3 in vertical displacement shall be provided with the topmost cable depth at or below the minimum required depth below finished grade.

Primary airfield lighting cables installed shall have cable circuit identification markers attached on both sides of each L-823 connector and on each airport lighting cable entering or leaving cable access points, such as manholes, handholes, pull boxes, junction boxes, etc. Markers shall be of sufficient length for imprinting the cable circuit identification legend on one line, using letters not less than ¼ in in size. The cable circuit identification shall match the circuits noted on the construction plans.

**a. Trenching.** Where turf is well established and the sod can be removed, it shall be carefully stripped and properly stored. Trenches for cables may be excavated manually or with mechanical trenching equipment. Walls of trenches shall be essentially vertical so that a minimum of surface is disturbed. Graders shall not be used to excavate the trench with their blades. The bottom surface of trenches shall be essentially smooth and free from coarse aggregate. Unless otherwise specified, cable trenches shall be excavated to a minimum depth of 18 in below finished grade, except as follows:

(1) When off the airport or crossing under a roadway or driveway, the minimum depth shall be 36 in unless otherwise specified.

(2) Minimum cable depth when crossing under a railroad track, shall be 42 in unless otherwise specified.

Dewatering necessary for cable installation, erosion and turbidity control, in accordance with Federal, State, and Local requirements is incidental to its respective pay items as part of Item L-108. The cost of all excavation regardless of type of material encountered, shall be included in the unit price bid for the L-108 Item.

The Contractor shall excavate all cable trenches to a width not less than 6 in. Unless otherwise specified on the plans, all cables in the same location and running in the same general direction shall be installed in the same trench.

When rock is encountered, the rock shall be removed to a depth of at least 3 in below the required cable depth and it shall be replaced with bedding material of earth or sand containing no mineral aggregate particles that would be retained on a 1/4 in sieve. Flowable backfill material may alternatively be used. The Contractor shall ascertain the type of soil or rock to be excavated before bidding. All such rock removal shall be performed and paid for under Item P-152.

Duct bank or conduit markers temporarily removed for trench excavations shall be replaced as required.

It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Where existing active cables cross proposed installations, the Contractor shall insure that these cables are adequately protected. Where crossings are unavoidable, no splices will be allowed in the existing cables, except as specified on the plans. Installation of new cable where such crossings must occur shall proceed as follows:

(1) Existing cables shall be located manually. Unearthed cables shall be inspected to assure absolutely no damage has occurred.

(2) Trenching, etc., in cable areas shall then proceed, with approval of the Engineer, with care taken to minimize possible damage or disruption of existing cable, including careful backfilling in area of cable.

In the event that any previously identified cable is damaged during the course of construction, the Contractor shall be responsible for the complete repair or replacement.

**b. Backfilling.** After the cable has been installed, the trench shall be backfilled. The first layer of backfill in the trench shall be 3 in deep, loose measurement, and shall be either earth or sand containing no mineral aggregate particles that would be retained on a 1/4 in sieve. This layer shall not be compacted. The second layer shall be 5 in deep, loose measurement, and shall contain no particles that would be retained on a 1 in sieve. The remaining 3<sup>rd</sup> and subsequent layers of backfill shall not exceed 8 in of loose measurement and be excavated or imported material and shall not contain stone or aggregate larger than 4 in maximum diameter.

The second and subsequent layers shall be thoroughly tamped and compacted to at least the density of the adjacent undisturbed soil, and to the satisfaction of the Engineer. If necessary to obtain the desired compaction, the backfill material shall be moistened or aerated as required.

Trenches shall not contain pools of water during backfilling operations. The trench shall be completely backfilled and tamped level with the adjacent surface, except that when turf is to be established over the trench, the backfilling shall be stopped at an appropriate depth consistent with the type of turfing operation to be accommodated. A proper allowance for settlement shall also be provided. Any excess excavated material shall be removed and disposed of in accordance with the plans and specifications.

Underground electrical warning (caution) tape shall be installed in the trench above all direct-buried cable. Contractor shall submit a sample of the proposed warning tape for acceptance by the Engineer. If not shown on the plans, the warning tape shall be located 6 in above the direct-buried cable or the counterpoise wire if present. A 4-6 in wide polyethylene film detectable tape, with a metalized foil core, shall be installed above all direct buried cable or counterpoise. The tape shall be of the color and have a continuous legend as indicated on the plans. The tape shall be installed 8 in minimum below finished grade.

**c. Restoration.** Where soil and sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by work shall be restored to its original condition. The restoration shall include the **sodding** as shown on the plans. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance. When trenching is through paved areas, restoration shall be equal to existing conditions and compaction shall meet the requirements of Item P-152. Restoration shall be considered incidental to the pay item of which it is a component part.

**108-3.4 CABLE MARKERS FOR DIRECT-BURIED CABLE.** The location of direct buried circuits shall be marked by a concrete slab marker, 2 feet (60 cm) square and 4-6 in (100 - 150 mm) thick, extending approximately 1 in (25 mm) above the surface. Each cable run from a line of lights and signs to the equipment vault shall be marked at approximately every 200 feet (60 m) along the cable run, with an additional marker at each change of direction of cable run. All other direct-buried cable shall be marked in the same manner. Cable markers shall be installed directly above the cable. The Contractor shall impress the word "CABLE" and directional arrows on each cable marking slab. The letters shall be approximately 4 in (100 mm) high and 3 in (75 mm) wide, with width of stroke 1/2 in (12 mm) and 1/4 in (6 mm) deep.

The location of each underground cable connection, except at lighting units, or isolation transformers, or power adapters shall be marked by a concrete marker slab placed above the connection. The Contractor shall impress the word "SPLICE" on each slab. The Contractor also shall impress additional circuit identification symbols on each slab as directed by the Engineer. All cable markers and splice markers shall be painted international orange. Paint shall be specifically manufactured for uncured exterior concrete. Furnishing and installation of cable markers is incidental to the respective cable pay item.

**108-3.5 SPLICING.** Connections of the type shown on the plans shall be made by experienced personnel regularly engaged in this type of work and shall be made as follows:

**a. Cast Splices.** These shall be made by using crimp connectors for jointing conductors. Molds shall be assembled, and the compound shall be mixed and poured in accordance with manufacturer's instructions and to the satisfaction of the Engineer.

**b. Field-attached Plug-in Splices.** These shall be assembled in accordance with manufacturer's instructions. These splices shall be made by plugging directly into mating connectors. In all cases the joint where the connectors come together shall be wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 in (37 mm) on each side of the joint.

**c. Factory-Molded Plug-in Splices.** These shall be made by plugging directly into mating connectors. In all cases, the joint where the connectors come together shall be wrapped with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape, one-half lapped, extending at least 1-1/2 in (37 mm) on each side of the joint.

**d. Taped or Heat-Shrunk Splices.** A taped splice shall be made in the following manner:

Bring the cables to their final position and cut so that the conductors will butt. Remove insulation and jacket allowing for bare conductor of proper length to fit compression sleeve connector with 1/4 in (6 mm) of bare conductor on each side of the connector. Prior to splicing, the two ends of the cable insulation shall be penciled using a tool designed specifically for this purpose and for cable size and type. Do not use emery paper on splicing operation since it contains metallic particles. The copper conductors shall be thoroughly cleaned. Join the conductors by inserting them equidistant into the compression connection sleeve. Crimp conductors firmly in place with crimping tool that requires a complete crimp before tool can be removed. Test the crimped connection by pulling on the cable. Scrape the insulation to assure that the entire surface over which the tape will be applied (plus 3 in (75 mm) on each end) is clean. After scraping wipe the entire area with a clean lint-free cloth. Do not use solvents.

Apply high-voltage rubber tape one-half lapped over bare conductor. This tape should be tensioned as recommended by the manufacturer. Voids in the connector area may be eliminated by highly elongating the tape, stretching it just short of its breaking point. Throughout the rest of the splice less tension should be used. Always attempt to exactly half-lap to produce a uniform buildup. Continue buildup to 1-1/2 times cable diameter over the body of the splice with ends tapered a distance of approximately 1 in (25 mm) over the original jacket. Cover rubber tape with two layers of vinyl pressure-sensitive tape one-half lapped. Do not use glyptol or lacquer over vinyl tape as they react as solvents to the tape. No further cable covering or splice boxes are required.

Heat shrinkable tubing shall be installed following manufacturer's instructions. Direct flame heating shall not be permitted unless recommended by the manufacturer. Cable surfaces within the limits of the heat-shrink application shall be clean and free of contaminants prior to application.

**108-3.6 BARE COUNTERPOISE WIRE INSTALLATION FOR LIGHTNING PROTECTION AND GROUNDING.** If shown on the plans or included in the job specifications, bare counterpoise copper wire shall be installed for lightning protection of the underground cables. Counterpoise wire shall be installed in the same trench for the entire length of buried cable, conduits and duct banks that are installed to contain airfield cables. Where the cable or duct/conduit trench runs parallel to the edge of pavement, the counterpoise shall be installed in a separate trench located half the distance between the pavement edge and the cable or duct/conduit trench. In trenches not parallel to pavement edges, counterpoise wire shall be installed continuously a minimum of 4 in above the cable, conduit or duct bank, or as shown on the plans if greater. Additionally, counterpoise wire shall be installed at least 8 in below the top of subgrade in paved areas or 10 in below finished grade in un-paved areas. This dimension may be less than 4 in where conduit is to be embedded in existing pavement. Counterpoise wire shall not be installed in conduit.

The counterpoise wire shall be routed around to each light fixture base, mounting stake, or junction/access structures. The counterpoise wire shall also be exothermically welded to ground rods installed as shown on the plans but not more than 500 ft (150 m) apart around the entire circuit.

The counterpoise system shall be continuous and terminate at the transformer vault or at the power source. It shall be securely attached to the vault or equipment external ground ring or other made electrode grounding system. The connections shall be made as shown on the plans and in the specifications.

If shown on the plans or in the specifications, a separate equipment (safety) ground system shall be provided in addition to the counterpoise wire using one of the following methods:

- (1) A ground rod installed at and securely attached to each light fixture base, mounting stake if painted, and to all metal surfaces at junction/access structures.
- (2) Install an insulated equipment ground conductor internal to the conduit system and securely attached it to each light fixture base and to all metal surfaces at junction/access structures. This equipment ground conductor shall also be exothermically welded to ground rods installed not more than 500 feet (150 m) apart around the circuit.

**a. Counterpoise Installation Above Multiple Conduits and Duct Banks.** Counterpoise wires shall be installed above multiple conduits/duct banks for airfield lighting cables, with the intent being to provide a complete cone of protection over the airfield lighting cables. When multiple conduits and/or duct banks for airfield cable are installed in the same trench, the number and location of counterpoise wires above the conduits shall be adequate to provide a complete cone of protection measured 22 ½ degrees each side of vertical.

Where duct banks pass under pavement to be constructed in the project, the counterpoise shall be placed above the duct bank. Reference details on the construction plans.

**b. Counterpoise Installation at Existing Duct Banks.** When airfield lighting cables are indicated on the plans to be routed through existing duct banks, the new counterpoise wiring shall be terminated at ground rods at each end of the existing duct bank where the cables being protected enter and exit the duct bank. The new counterpoise conductor shall be bonded to the existing counterpoise system.

**108-3.7 EXOTHERMIC BONDING.** Bonding of counterpoise wire shall be by the exothermic welding process. Only personnel experienced in and regularly engaged in this type of work shall make these connections.

Contractor shall demonstrate to the satisfaction of the Engineer, the welding kits, materials and procedures to be used for welded connections prior to any installations in the field. The installations shall comply with the manufacturer's recommendations and the following:

a. All slag shall be removed from welds.

b. For welds at light fixture base cans, all galvanized coated surface areas and "melt" areas, both inside and outside of base cans, damaged by exothermic bond process shall be restored by coating with a liquid cold-galvanizing compound conforming to U.S. Navy galvanized repair coating meeting Mil. Spec. MIL-P-21035. Surfaces to be coated shall be prepared and compound applied in accordance with manufacturer's recommendations.

c. All buried copper and weld material at weld connections shall be thoroughly coated 6 mil of 3M "Scotchkote," or approved equivalent, or coated with coal tar Bitumastic® material to prevent surface exposure to corrosive soil or moisture.

**108-3.8 TESTING.** The Contractor shall furnish all necessary equipment and appliances for testing the airport electrical systems and underground cable circuits before and after installation. The Contractor shall perform all tests in the presence of the Engineer. The Contractor shall demonstrate the electrical characteristics to the satisfaction of the Engineer. All costs for testing are incidental to the respective item being tested. For phased projects, the tests must be completed by phase and results meeting the specifications below must be maintained by the Contractor throughout the entire project as well as during the ensuing warranty period.

Earth resistance testing methods shall be submitted to the Engineer for approval. Earth resistance testing results shall be recorded on an approved form and testing shall be performed in the presence of the Engineer. All such testing shall be at the sole expense of the Contractor.

Should the counterpoise or ground grid conductors be damaged or suspected of being damaged by construction activities the Contractor shall test the conductors for continuity with a low resistance ohmmeter. The conductors shall be isolated such that no parallel path exists and tested for continuity. The Engineer shall approve of the test method selected. All such testing shall be at the sole expense of the Contractor.

After installation, the Contractor shall test and demonstrate to the satisfaction of the Engineer the following:

a. That all affected lighting power and control circuits (existing and new) are continuous and free from short circuits.

b. That all affected circuits (existing and new) are free from unspecified grounds.

c. That the insulation resistance to ground of all new non-grounded series circuits or cable segments is not less than 50 megohms.



d. That the insulation resistance to ground of all non-grounded conductors of new multiple circuits or circuit segments is not less than 50 megohms.

e. That all affected circuits (existing and new) are properly connected in accordance with applicable wiring diagrams.

f. That all affected circuits (existing and new) are operable. Tests shall be conducted that include operating each control not less than 10 times and the continuous operation of each lighting and power circuit for not less than 1/2 hour.

g. That the impedance to ground of each ground rod does not exceed 25 ohms prior to establishing connections to other ground electrodes. The fall-of-potential ground impedance test shall be used, as described by ANSI/IEEE Standard 81, to verify this requirement.

Two copies of tabulated results of all cable tests performed shall be supplied by the Contractor to the Engineer. Where connecting new cable to existing cable, ground resistance tests shall be performed on the new cable prior to connection to the existing circuit.

There are no approved "repair" procedures for items that have failed testing other than complete replacement.

#### METHOD OF MEASUREMENT

No separate Method or Measurement for payment.

## MATERIAL REQUIREMENTS

|                    |                                                                                                                                                |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| AC 150/5345-7      | Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits                                                             |
| AC 150/5345-26     | Specification for L-823 Plug and Receptacle Cable Connectors                                                                                   |
| FED SPEC J-C-30    | Cable and Wire, Electrical Power, Fixed Installation (cancelled; replaced by A-A-59544 Cable and Wire, Electrical (Power, Fixed Installation)) |
| FED SPEC A-A-55809 | Insulation Tape, Electrical, Pressure-Sensitive Adhesive, Plastic                                                                              |
| ASTM B 3           | Soft or Annealed Copper Wire                                                                                                                   |
| ASTM D 4388        | Rubber tapes, Nonmetallic Semiconducting and Electrically Insulating                                                                           |

## REFERENCE DOCUMENTS

|                  |                                                                                                               |
|------------------|---------------------------------------------------------------------------------------------------------------|
| NFPA No. 70      | National Electrical Code (NEC)                                                                                |
| MIL-S-23586C     | Sealing Compound, Electrical, Silicone Rubber                                                                 |
| NN               | Building Industry Consulting Service International (BICSI)                                                    |
| ANSI/IEEE Std 81 | IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System |

END OF ITEM L-108

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## **Item L-109 Airport Transformer Vault and Vault Equipment**

### **DESCRIPTION**

**109-1.1** This item shall consist of constructing an airport transformer vault or a prefabricated metal housing these specifications in accordance with the design and dimensions shown in the plans. This work shall also include the installation of conduits in floor and foundation, painting and lighting of the vault or metal housing, and the furnishing of all incidentals necessary to produce a completed unit. Included as a separate part under this item or as a separate item where an existing vault is to be used shall be the furnishing of all vault equipment, wiring, electrical buses, cable, conduit, potheads, and grounding systems. This work shall also include the painting of equipment and conduit; the marking and labeling of equipment and the labeling or tagging of wires; the testing of the installation; and the furnishing of all incidentals necessary to place it in operating condition as a completed unit to the satisfaction of the Engineer.

### **EQUIPMENT AND MATERIALS**

#### **109-2.1 GENERAL.**

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified and listed under Advisory Circular (AC) 150/5345-53, Airport Lighting Equipment Certification Program.

b. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer.

c. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

d. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

e. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. [The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section.] The Engineer reserves the right to reject any and all equipment,

materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

#### CONSTRUCTION OF VAULT AND PREFABRICATED METAL HOUSING

**109-2.2 CONCRETE.** The concrete for the vault shall be proportioned, placed, and cured in accordance with Item P-610, Structural Portland Cement Concrete, using  $\frac{3}{4}$  in (18 mm) maximum size coarse aggregate.

**109-2.3 REINFORCING STEEL.** Reinforcing steel bars shall be intermediate or structural grade deformed-type bars and shall meet the requirements of ASTM A 615.

**109-2.4 BRICK.** Brick shall conform to ASTM C 62, Grade SW.

**109-2.5 RIGID STEEL CONDUIT.** Rigid steel conduit and fittings shall be in accordance with Underwriters Laboratories Standard 6 and 514.

**109-2.6 LIGHTING.** Vault or metal-housing light fixtures shall be of a vapor-proof type.

**109-2.7 OUTLETS.** Convenience outlets shall be heavy-duty duplex units designed for industrial service.

**109-2.8 SWITCHES.** Vault or metal-housing light switches shall be single-pole switches.

#### **109-2.9 PAINT.**

a. Priming paint for ungalvanized metal surfaces shall be a high solids alkyd primer conforming to TT-P-664D.

b. White paint for body and finish coats on metal and wood surfaces shall be ready-mixed paint conforming to the Master Painter's Institute, Reference #9, Exterior Alkyd, Gloss, VOC Range E2.

c. Priming paint for wood surfaces shall be mixed on the job by thinning the above specified white paint by adding  $\frac{1}{2}$  pint (0.06 liter) of raw linseed oil to each gallon (liter).

d. Paint for the floor, ceiling, and inside walls shall be in accordance with Fed. Spec. TT-E-487. Walls and ceiling shall be light gray and the floor shall be medium gray.

e. The roof coating shall be hot asphalt material in accordance with ASTM D 2823.

**109-2.10 HIGH-VOLTAGE BUS.** High-voltage bus shall be standard weight  $\frac{3}{8}$  in (9 mm) IPS copper tubing or it may be insulated copper cable of the size and voltage rating specified.

**109-2.11 BUS CONNECTORS.** Connectors shall be similar to Burndy® Type NT (or equivalent) for copper tubing. Connectors for insulated bus cable shall be of the proper size and type for the service intended.

**109-2.12 BUS SUPPORTS.** Bus supports shall be similar to Westinghouse No. 527892 (or equivalent), insulated for 7,500 volts, single clamp type for 2-bolt flat mounting.

**109-2.13 GROUND BUS.** Ground bus shall be  $\frac{1}{8} \times \frac{3}{4}$  in (3 x 18 mm) minimum copper bus bar.

**109-2.14 SQUARE DUCT.** Duct shall be square similar to that manufactured by the Square D Company (or equivalent), or the Trumbull Electric Manufacturing Company (or equivalent). The entire front of the duct on each section shall consist of hinged or removable cover for ready access to the interior. The cross

section of the duct shall be not less than 4 x 4 in (100 x 100 mm) except where otherwise shown in the plans.

**109-2.15 GROUND RODS.** Ground rods shall be copper or copper-clad of the length and diameter specified in the plans.

**109-2.16 POTHEADS.** Potheads shall be similar to G&W Type N, Shape C (or equivalent), unless otherwise specified. Potheads shall be furnished with plain insulator bushings and conduit couplings. Potheads shall have a rating not less than the circuit voltage.

**109-2.17 PREFABRICATED METAL HOUSING.** The prefabricated metal housing shall be a commercially available unit.

**109-2.18 FAA-APPROVED EQUIPMENT.** Certain items of airport lighting equipment installed in vaults are covered by individual FAA equipment specifications. The specifications are listed below:

|                |                                                                                                          |
|----------------|----------------------------------------------------------------------------------------------------------|
| AC 150/5345-3  | Specification for L-821 Panels for Remote Control of Airport Lighting                                    |
| AC 150/5345-5  | Circuit Selector Switch                                                                                  |
| AC 150/5345-7  | Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits                       |
| AC 150/5345-10 | Specification for Constant Current Regulators and Regulator Monitors                                     |
| AC 150/5345-13 | Specification for L-841 Auxiliary Relay Cabinet Assembly for Pilot Control of Airport Lighting Circuits. |

**109-2.19 OTHER ELECTRICAL EQUIPMENT.** Constant-current regulators, distribution transformers, oil switches, cutouts, relays, terminal blocks, transfer relays, circuit breakers, and all other regularly used commercial items of electrical equipment not covered by FAA equipment specifications shall conform to the applicable rulings and standards of the Institute of Electrical and Electronic Engineers or the National Electrical Manufacturers Association. When specified, test reports from a testing laboratory indicating that the equipment meets the specifications shall be supplied. In all cases, equipment shall be new and a first-grade product. This equipment shall be supplied in the quantities required for the specific project and shall incorporate the electrical and mechanical characteristics specified in the proposal and plans.

**109-2.20 WIRE.** Wire in conduit rated up to 5,000 volts shall conform to AC 150/5345-7, Specification for L-824 Underground Electrical Cables for Airport Lighting Circuits, for rubber insulated neoprene-covered wire, or Fed. Spec. J-C-30, Type RHW, for rubber insulated fibrous-covered wire. For ratings up to 600 volts, thermoplastic wire conforming to Fed. Spec. J-C-30, Types TW, THW, and THWN, shall be used. The wires shall be of the type, size, number of conductors, and voltage shown in the plans or in the proposal.

**a. Control Circuits.** Unless otherwise indicated on the plans, wire shall be not less than No. 12 AWG and shall be insulated for 600 volts. If telephone control cable is specified, No. 19 AWG telephone cable conforming to ICEA S-85-625-1996 specifications shall be used.

**b. Power Circuits.**

- (1) 600 volts maximum-Wire shall be No. 6 AWG or larger and insulated for at least 600 volts.
- (2) 3,000 volts maximum-Wire shall be No. 6 AWG or larger and insulated for at least 3,000 volts.

(3) Over 3,000 volts-Wire shall be No. 6 AWG or larger and insulated for at least the circuit voltage.

## CONSTRUCTION METHODS

### CONSTRUCTION OF VAULT AND PREFABRICATED METAL HOUSING

**109-3.1 GENERAL.** The Contractor shall construct the transformer vault or prefabricated metal housing at the location indicated in the plans. Vault construction shall be reinforced concrete, concrete masonry, or brick wall as specified. The metal housing shall be prefabricated equipment enclosure to be supplied in the size specified. The mounting pad or floor details, installation methods, and equipment placement are shown in the plans.

The Contractor shall clear, grade, and seed the area around the vault or metal housing for a minimum distance of 10 feet (3 m) on all sides. The slope shall be not less than  $\frac{1}{2}$  in per ft (40 mm per m) away from the vault or metal housing in all directions.

The vault shall provide adequate protection against weather elements, including rain, wind-driven dust, snow, ice and excessive heat. The vault shall have sufficient filtered ventilation, to assure that the interior room temperatures and conditions do not exceed the recommended limits of the electrical equipment to be installed in the vault. Contractor is responsible for contacting the manufacturer of the equipment to be installed to obtain environmental limitations of the equipment to be installed.

### 109-3.2 FOUNDATION AND WALLS.

**a. Reinforced Concrete Construction.** The Contractor shall construct the foundation and walls in accordance with the details shown in the plans. Unless otherwise specified, internal ties shall be of the mechanical type so that when the forms are removed the ends of the ties shall be at least 1 in (25 mm) beneath the concrete surface; the holes shall be plugged and finished to prevent discoloration. Reinforcing steel shall be placed, as shown in the drawings, and secured in position to prevent displacement during the concrete placement.

The external surfaces of the concrete shall be thoroughly worked during the placing operation to force all coarse aggregate from the surface. Thoroughly work the mortar against the forms to produce a smooth finish free from air pockets and honeycomb.

The surface film of all pointed surfaces shall be removed before setting occurs. As soon as the pointing has set sufficiently, the entire surface inside and outside of the vault shall be thoroughly wet with water and rubbed with a No. 16 carborundum stone, or equivalent quality abrasive, bringing the surface to a paste. All form marks and projections shall be removed. The surface produced shall be smooth and dense without pits or irregularities. The materials which have been ground into a paste during the rubbing process shall be spread or brushed uniformly over the entire surface (except the interior surfaces that are to be painted shall have all paste removed by washing before painting) and permitted to reset. Final exterior finish shall be obtained by rubbing with No. 30 carborundum stone, or an equivalent quality abrasive. The surface shall be rubbed until the entire surface is smooth and uniform in color.

**b. Brick and Concrete Construction.** When this type of construction is specified, the foundation shall be concrete conforming to the details shown in the plans. The outer edge of the foundation at the floor level shall be beveled 1- $\frac{1}{2}$  in (37 mm) at 45 degrees. Brick walls shall be 8 in (200 mm) thick, laid in running bond with every sixth course a header course. Brick shall be laid in cement mortar (1 part masonry cement and 3 parts sand) with full mortar bed and shoved joints. All joints shall be completely filled with mortar, and facing brick shall be back-parged with mortar as work progresses. All joints shall

be 3/8 in (9 mm) thick, exterior joints tooled concave, and interior joints struck flush. Both interior and exterior brick surfaces shall be cleaned and nail holes, cracks and other defects filled with mortar. When specified, a nonfading mineral pigment mortar coloring shall be added to the mortar. Steel reinforcing bars, 3/8 in (9 mm) in diameter and 12 in (300 mm) long, shall be set vertically in the center of the brick wall on not more than 2 ft (60 cm) centers to project 2-1/2(60 mm) in into the concrete roof slab. Lintels for supporting the brickwork over doors, windows, and louvers shall consist of two 4 x 3 x 3/8 in (100 x 75 x 9 mm) steel angles. Lintels shall be painted with one coat of corrosion-inhibiting primer before installation, and all exposed parts shall be painted similar to doors and window sash after installation.

Window sills may be concrete poured in place or precast concrete as indicated in the plans. All exposed surfaces shall have a rubbed finish as specified under reinforced concrete construction. After completion, all interior and exterior faces of walls shall be scrubbed with a solution of muriatic acid and water in the proportions of not less than 1 part acid to 10 parts of water. All traces of efflorescence, loose mortar, and mortar stain shall be removed, and the walls washed down with clear water.

**c. Concrete Masonry Construction.** When this type of construction is specified, the foundation shall be concrete conforming to the details shown in the plans. The concrete masonry units shall be standard sizes and shapes and shall conform to ASTM C 90 and shall include the closures, jambs, and other shapes required by the construction as shown in the plans. Standard construction practice shall be followed for this type of work including mortar, joints, reinforcing steel for extensions into roof slab, etc. Plaster for interior walls, if specified, shall be Portland cement plaster.

**109-3.3 ROOF.** The roof shall be reinforced concrete as shown in the plans. Reinforcing steel shall be placed as shown in the drawing and secured in position to prevent displacement during the pouring of the concrete. The concrete shall be poured monolithically and shall be free of honeycombs and voids. The surface shall have a steel-troweled finish and shall be sloped as shown in the drawing. The underside of the roof slab shall be finished in the same manner as specified for walls.

One brush or mop coat of hot asphalt roof coating shall be applied to the top surface of the roof slab. The asphalt material shall be heated to within the range specified by the manufacturer and immediately applied to the roof. The finished coat shall be continuous over the roof surface and free from holidays and blisters. Smears and dribbles of asphalt on the roof edges and building walls shall be removed.

**109-3.4 FLOOR.** The floor shall be reinforced concrete as shown in the drawings. When present, all sod, roots, refuse, and other perishable material shall be removed from the area under the floor to a depth of 8 in (200 mm), unless a greater depth is specified in the invitation for bids. This area shall be backfilled with materials consisting of sand, cinders, gravel, or stone. Fill shall be placed in layers not to exceed 4 in (100 mm) and shall be thoroughly compacted by tamping or rolling. A layer of building paper shall be placed over the fill prior to placing concrete. The floor surfaces shall have a steel-troweled finish. The floor shall be level unless a drain is specified, in which case the floor shall be pitched 1/4 in (6 mm) per ft downward toward the drain. A 1/4 in (6 mm) asphalt felt expansion joint shall be placed between floor and foundation walls. The floor shall be poured monolithically and shall be free of honeycombs and voids.

**109-3.5 FLOOR DRAIN.** If shown in the plans, a floor drain and dry well shall be installed in the center of the floor of the equipment room. The dry well shall be excavated 4 x 4 feet (120 x 120 cm) square and to a depth of 4 feet (120 cm) below the finished floor elevation and shall be backfilled to the elevation of the underside of the floor with gravel - which shall all pass a 2 in (50 mm) mesh sieve and shall all be retained on a 1/4 in (6 mm) mesh sieve. The gravel backfill shall be placed in 6 in (150 mm) maximum layers, and the entire surface of each layer shall be tamped either with a mechanical tamper or with a hand tamper weighing not less than 25 pounds (11 kg) and having a face area of not more than 36 square in (234 square cm) nor less than 16 square in (104 square cm). The drain inlet shall be set flush in the concrete floor. The drain shall have a clear opening of not less than 8 in (200 mm) in diameter.



**109-3.6 CONDUITS IN FLOOR AND FOUNDATION.** Conduits shall be installed in the floor and through the foundation walls in accordance with the details shown in the plans. All underground conduit shall be painted with a bituminous compound. Conduit shall be installed with a coupling or metal conduit adapter flush with the top of the floor. All incoming conduit shall be closed with a pipe plug to prevent the entrance of foreign material during construction. Space conduit entrances shall be left closed.

**109-3.7 DOORS.** Doors shall be metal-clad fireproof class A doors conforming to requirements of the National Electric Code and local electrical codes.

**109-3.8 PAINTING.** The floor, ceiling, and inside walls of concrete construction shall first be given a hardening treatment, after which the Contractor shall apply two coats of paint as specified below, except that interior face brick walls need not be painted. The hardening treatment shall consist of applying two coats of either a commercial floor hardener or a solution made by dissolving 2 pounds (0.9 kg) of magnesium fluosilicate or zinc sulfate crystals in 1 gallon (liter) of water. Each coat shall be allowed to dry at least 48 hours before the next application. After the second treating coat has dried, the surfaces shall be brushed clean of all crystals and thoroughly washed with clear water. Paint for walls and ceiling shall be a light gray color approved by the Engineer. The floor paint shall be a medium gray color approved by the Engineer. Before painting, the surfaces shall be dry and clean. The first coat shall be thinned by adding 2/3-quart (0.166 liters) of spar varnish and 1/3-quart (0.083 liters) of turpentine to each gallon (liter) of paint. The second coat shall be applied without thinning. All doors, lintels, and windows shall be cleaned to remove any rust or foreign material and shall be given one body and one finish coat of white paint. Bare metal surfaces shall be given a prime coat of corrosion-inhibiting primer prior to the body and finish coats.

**109-3.9 LIGHTS AND SWITCHES.** The Contractor shall furnish and install a minimum of two duplex convenience outlets in the vault room. Where a control room is specified, at least two duplex outlets shall be installed.

#### INSTALLATION OF EQUIPMENT IN VAULT OR PREFABRICATED METAL HOUSING

**109-3.10 GENERAL.** The Contractor shall furnish, install, and connect all equipment, equipment accessories, conduit, cables, wires, buses, grounds, and support necessary to insure a complete and operable electrical distribution center for the airport lighting system as specified herein and shown in the plans. When specified, an emergency power supply and transfer switch shall be provided and installed.

The equipment installation and mounting shall comply with the requirements of the National Electrical Code and local code agency having jurisdiction.

**109-3.11 POWER SUPPLY EQUIPMENT.** Transformers, regulators, booster transformers, and other power supply equipment items shall be furnished and installed at the location shown in the plans or as directed by the Engineer. The power supply equipment shall be set on steel "H" sections, "I" beams, channels, or concrete blocks to provide a minimum space of 1 ½ in (37 mm) between the equipment and the floor. The equipment shall be placed so as not to obstruct the oil-sampling plugs of the oil-filled units; and name-plates shall, so far as possible, not be obscured.

If specified in the plans and specifications, equipment for an alternate power source or an emergency power generator shall be furnished and installed. The alternate power supply installation shall include all equipment, accessories, an automatic changeover switch, and all necessary wiring and connections. The emergency power generator set shall be the size and type specified.

**109-3.12 SWITCHGEAR AND PANELS.** Oil switches, fused cutouts, relays, transfer switches, panels, panel boards, and other similar items shall be furnished and installed at the location shown in the plans or as directed by the Engineer. Wall or ceiling mounted items shall be attached to the wall or ceiling with

galvanized bolts of not less than 3/8 in (9 mm) diameter engaging metal expansion shields or anchors in masonry or concrete vaults.

**109-3.13 DUCT AND CONDUIT.** The Contractor shall furnish and install square-type exposed metallic ducts with hinged covers for the control circuits in the vault. These shall be mounted along the walls behind all floor-mounted equipment and immediately below all wall-mounted equipment. The hinged covers shall be placed to open from the front side with the hinges at the front bottom.

Wall brackets for square ducts shall be installed at all joints 2 feet (60 cm) or more apart with intermediate brackets as specified. Conduit shall be used between square ducts and equipment or between different items of equipment when the equipment is designed for conduit connection. When the equipment is not designed for conduit connection, conductors shall enter the square-type control duct through insulating bushings in the duct or on the conduit risers.

**109-3.14 CABLE ENTRANCE AND HIGH-VOLTAGE BUS SYSTEM.** Incoming underground cable from field circuits and supply circuits will be installed outside the walls of the transformer vault as a separate item under Item L-108. The Contractor installing the vault equipment shall bring the cables from the trench or duct through the entrance conduits into the vault and make the necessary electrical connections. For the incoming and outgoing high voltage load circuits, the Contractor shall furnish and install rigid metallic vi conduit risers, surmounted by potheads, from floor level to the level as shown in the plans.

The incoming high-voltage power supply service to the vault shall enter below the floor of the vault and shall rise from the floor level in a rigid metallic conduit riser, surmounted by a pothead, as described above. Using insulated high-voltage cable, the incoming power service shall be connected from the pothead to the oil-fused cutouts or to the specified disconnecting switch or equipment. From the oil-fused cutouts or disconnecting device, the insulated service conductors shall be connected to the overhead voltage bus system of the vault. The high-voltage bus system shall use the materials specified and shall be mounted and installed in accordance with the requirements of the National Electrical Code or the local code agency having jurisdiction.

**109-3.15 WIRING AND CONNECTIONS.** The Contractor shall make all necessary electrical connections in the vault in accordance with the wiring diagrams furnished and as directed by the Engineer. In wiring to the terminal blocks, the Contractor shall leave sufficient extra length on each control lead to make future changes in connections at the terminal block. This shall be accomplished by running each control lead the longest way around the box to the proper terminal. Leads shall be neatly placed in place.

**109-3.16 MARKING AND LABELING.** All equipment, control wires, terminal blocks, etc., shall be tagged, marked, or labeled as specified below:

**a. Wire Identification.** The Contractor shall furnish and install self-sticking wire labels or identifying tags on all control wires at the point where they connect to the control equipment or to the terminal blocks. Wire labels, if used, shall be of the self-sticking preprinted type and of the manufacturer's recommended size for the wire involved. Identification -markings designated in the plans shall be followed. Tags, if used, shall be of fiber not less than 3/4 in (13 mm) in diameter and not less than 1/32 in (1 mm) thick. Identification markings designated in the plans shall be stamped on tags by means of small tool dies. Each tag shall be securely tied to the proper wire by a nonmetallic cord.

**b. Labels.** The Contractor shall stencil identifying labels on the cases of regulators, breakers, and distribution and control relay cases with white oil paint as designated by the Engineer. The letters and numerals shall be not less than 1 in (25 mm) in height and shall be of proportionate width. The Contractor shall also mark the correct circuit designations in accordance with the wiring diagram on the terminal marking strips, which are a part of each terminal block.

## METHOD OF MEASUREMENT

No separate Method or Measurement for Payment.

## MATERIAL REQUIREMENTS

|                         |                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------|
| AC 150/5345-3           | Specification for L-821 Panels for Remote Control of Airport Lighting                                   |
| AC 150/5345-5           | Circuit Selector Switch                                                                                 |
| AC 150/5345-7           | Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits                      |
| AC 150/5345-10          | Specification for Constant Current Regulators and Regulator Monitors                                    |
| AC 150/5345-13A         | Specification for L-841 Auxiliary Relay Cabinet Assembly for Pilot Control of Airport Lighting Circuits |
| ANSI/ICEA S-85-625-1996 | Aircore, Polyethylene Insulated, Copper Conductor, Telecommunications Cable                             |
| ASTM A 615              | Specification for Deformed and Plain Billet Steel Bars for Concrete Reinforcement                       |
| ASTM C 62               | Specification for Building Brick (Solid Masonry Units Made from Clay or Shale)                          |

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|                            |                                                                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| ASTM C 90                  | Concrete Masonry Units, Loadbearing                                                                                                             |
| ASTM D 2823                | Asphalt Roof-Coating                                                                                                                            |
| FED SPEC J-C-30            | Cable and Wire, Electrical (Power, Fixed Installation) (cancelled; replaced by AA-59544 Cable and Wire, Electrical (Power, Fixed Installation)) |
| FED SPEC TT-E-487          | Enamel, Floor and Deck                                                                                                                          |
| Master Painter's Institute |                                                                                                                                                 |

END OF ITEM L-109

## **Item L-110 Airport Underground Electrical Duct Banks and Conduits**

### **DESCRIPTION**

**110-1.1** This item shall consist of underground electrical conduits and duct banks (single or multiple conduits encased in concrete) installed in accordance with this specification at the locations and in accordance with the dimensions, designs, and details shown on the plans. This item shall include furnishing and installing of all underground electrical duct banks and individual and multiple underground conduits. It shall also include all turfing trenching, backfilling, removal, and restoration of any paved or turfed areas; concrete encasement, mandreling, pulling lines, duct markers, plugging of conduits, and the testing of the installation as a completed system ready for installation of cables in accordance with the plans and specifications. This item shall also include furnishing and installing conduits and all incidentals for providing positive drainage of the system. Verification of existing ducts is incidental to the pay items provided in this specification.

### **EQUIPMENT AND MATERIALS**

#### **110-2.1 GENERAL.**

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when so requested by the Engineer.

b. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

c. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. [The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section.] The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

**110-2.2 STEEL CONDUIT.** Rigid galvanized steel conduit and fittings shall be hot dipped galvanized inside and out and conform to the requirements of Underwriters Laboratories Standard 6, 514B, and 1242.

**110-2.3 PLASTIC CONDUIT.** Plastic conduit and fittings shall conform to the requirements of Fed. Spec. W--C-1094, Underwriters Laboratories Standards UL-651 and Article 352 of the current National Electrical Code shall be one of the following, as shown on the plans:

- a. Type I--Schedule 40 PVC suitable for underground use either direct-buried or encased in concrete.
- b. Type II--Schedule 40 PVC suitable for either above ground or underground use.

The type of adhesive shall be as recommended by the conduit/fitting manufacturer.

**110-2.4 SPLIT CONDUIT.** Split conduit shall be pre-manufactured for the intended purpose and shall be made of steel or plastic.

**110-2.5 CONDUIT SPACERS.** Conduit spacers shall be prefabricated interlocking units manufactured for the intended purpose. They shall be of double wall construction made of high grade, high density polyethylene complete with interlocking cap and base pads, They shall be designed to accept No. 4 reinforcing bars installed vertically.

**110-2.6 CONCRETE.** Concrete shall conform to Item P-610, Structural Portland Cement Concrete, using [ ] inch maximum size coarse aggregate with a minimum 28 day compressive strength of [ ] psi. Where reinforced duct banks are specified, reinforcing steel shall conform to ASTM A 615 Grade 60. Concrete and reinforcing steel are incidental to the respective pay item of which they are a component part.

**110-2.7 FLOWABLE BACKFILL.** Flowable material used to back fill conduit and duct bank trenches shall conform to the requirements of Item P-153 "Controlled Low Strength Material".

**110-2.8 DETECTABLE WARNING TAPE** Plastic, detectable, color as noted magnetic tape shall be polyethylene film with a metallized foil core and shall be 4 - 6 in (75 - 150 mm) wide. Detectable tape is incidental to the respective bid item.

## CONSTRUCTION METHODS

**110-3.1 GENERAL.** The Contractor shall install underground duct banks and conduits at the approximate locations indicated on the plans. The Engineer shall indicate specific locations as the work progresses, if required to differ from the plans. Duct banks and conduits shall be of the size, material, and type indicated on the plans or specifications. Where no size is indicated on the plans or in the specifications, conduits shall be not less than 2 in (50 mm) inside diameter or comply with the National Electrical Code based on cable to be installed, whichever is larger. All duct bank and conduit lines shall be laid so as to grade toward access points and duct or conduit ends for drainage. Unless shown otherwise on the plans, grades shall be at least 3 in (75 mm) per 100 feet (30 m). On runs where it is not practicable to maintain the grade all one way, the duct bank and conduit lines shall be graded from the center in both directions toward access points or conduit ends, with a drain into the storm drainage system. Pockets or traps where moisture may accumulate shall be avoided. No duct bank or underground conduit shall be less than 18 in below finished grade. Where under pavement, the top of the duct bank shall not be less than 18 in below the subgrade.

The Contractor shall mandrel each individual conduit whether the conduit is direct-buried or part of a duct bank. An iron-shod mandrel, not more than  $\frac{1}{4}$  in (6 mm) smaller than the bore of the conduit shall be pulled or pushed through each conduit. The mandrel shall have a leather or rubber gasket slightly larger than the conduit hole.

The Contractor shall swab out all conduits/ducts and clean base can, manhole, pull boxes, etc. interiors IMMEDIATELY prior to pulling cable. Once cleaned and swabbed the base cans, manhole, pull boxes, etc. and all accessible points of entry to the duct/conduit system shall be kept closed except when installing cables. Cleaning of ducts, base cans, manholes, etc. is incidental to the pay item of the item being cleaned. All raceway systems left open, after initial cleaning, for any reason shall be recleaned at the Contractor's expense. All accessible points shall be kept closed when not installing cable. The Contractor shall verify existing ducts proposed for use in this project as clear and open. The Contractor shall notify the Engineer of any blockage in the existing ducts.

For pulling the permanent wiring, each individual conduit, whether the conduit is direct-buried or part of a duct bank, shall be provided with a 200 pound test polypropylene pull rope. The ends shall be secured and sufficient length shall be left in access points to prevent it from slipping back into the conduit. Where spare conduits are installed, as indicated on the plans, the open ends shall be plugged with removable tapered plugs, designed for this purpose.

All conduits shall be securely fastened in place during construction and shall be plugged to prevent contaminate from entering the conduits. Any conduit section having a defective joint shall not be installed. Ducts shall be supported and spaced apart using approved spacers at intervals not to exceed 5 feet.

Unless otherwise shown on the plans, concrete encased duct banks shall be used when crossing under pavements expected to carry aircraft loads.

Where turf is well established and the sod can be removed, it shall be carefully stripped and properly stored.

Trenches for conduits and duct banks may be excavated manually or with mechanical trenching equipment unless in pavement, in which case they shall be excavated with mechanical trenching equipment. Walls of trenches shall be essentially vertical so that a minimum of shoulder surface is disturbed. Blades of graders shall not be used to excavate the trench.

When rock is encountered, the rock shall be removed to a depth of at least 3 in below the required conduit or duct bank depth and it shall be replaced with bedding material of earth or sand containing no mineral aggregate particles that would be retained on a  $\frac{1}{4}$  in sieve. Flowable backfill may alternatively be used. The Contractor shall ascertain the type of soil or rock to be excavated before bidding. All such rock removal shall be performed and paid for under Item P-152.

Underground electrical warning (Caution) tape shall be installed in the trench above all underground duct banks and conduits in unpaved areas. Contractor shall submit a sample of the proposed warning tape for approval by the Engineer. If not shown on the plans, the warning tape shall be located six in above the duct/conduit or the counterpoise wire if present.

Joints in plastic conduit shall be prepared in accordance with the manufacturer's recommendations for the particular type of conduit. Plastic conduit shall be prepared by application of a plastic cleaner and brushing a plastic solvent on the outside of the conduit ends and on the inside of the couplings. The conduit fitting shall then be slipped together with a quick one-quarter turn twist to set the joint tightly. Where more than one conduit is placed in a single trench, or in duct banks, joints in the conduit shall be staggered a minimum of 2 feet.

Changes in direction of runs exceeding 10 degrees, either vertical or horizontal, shall be accomplished using manufactured sweep bends.

Whether or not specifically indicated on the drawings, where the soil encountered at established duct bank grade is an unsuitable material, as determined by the Engineer, the unsuitable material shall be removed in accordance with Item P-152 and replaced with suitable material. Alternatively, additional duct bank supports that are adequate and stable shall be installed, as approved by the Engineer.

All excavation shall be unclassified and shall be considered incidental to the respective L-110 pay item of which it is a component part. Dewatering necessary for duct installation, erosion and turbidity control, in accordance with Federal, State, and Local requirements is incidental to its respective pay item as a part of Item L-110. The cost of all excavation regardless of type of material encountered, shall be included in the unit price bid for the L-110 Item.

Unless otherwise specified, excavated materials that are deemed by the Engineer to be unsuitable for use in backfill or embankments shall be removed and disposed of offsite.

Any excess excavation shall be filled with suitable material approved by the Engineer and compacted in accordance with item P-152.

It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Where existing active cables cross proposed installations, the Contractor shall insure that these cables are adequately protected. Where crossings are unavoidable, no splices will be allowed in the existing cables, except as specified on the plans. Installation of new cable where such crossings must occur shall proceed as follows:

(1) Existing cables shall be located manually. Unearthed cables shall be inspected to assure absolutely no damage has occurred

(2) Trenching, etc., in cable areas shall then proceed with approval of the Engineer, with care taken to minimize possible damage or disruption of existing cable, including careful backfilling in area of cable.

In the event that any previously identified cable is damaged during the course of construction, the Contractor shall be responsible for the complete repair.

**110-3.2 DUCT BANKS.** Unless otherwise shown in the plans, duct banks shall be installed so that the top of the concrete envelope is not less than 18 in (45 cm) below the bottom of the base or stabilized base course layers where installed under runways, taxiways, aprons, or other paved areas, and not less than 18 in (45 cm) below finished grade where installed in unpaved areas.

Unless otherwise shown on the plans, duct banks under paved areas shall extend at least 3 feet (90 cm) beyond the edges of the pavement or 3 feet (90 cm) beyond any underdrains that may be installed alongside the paved area. Trenches for duct banks shall be opened the complete length before concrete is placed so that if any obstructions are encountered, proper provisions can be made to avoid them. Unless otherwise shown on the plans, all duct banks shall be placed on a layer of concrete not less than 3 in (75 mm) thick prior to its initial set. Where two or more conduits in the duct bank are intended to carry conductors of equivalent voltage insulation rating, the Contractor shall space the conduits not less than 1-1/2 in (37 mm) apart (measured from outside wall to outside wall). Where two or more conduits in the duct bank are intended to carry conductors of differing voltage insulation rating, the Contractor shall space the conduits not less than 3 in apart (measured from outside wall to outside wall). All such multiple conduits shall be placed using conduit spacers applicable to the type of conduit. As the conduit laying progresses, concrete shall be placed around and on top of the conduits not less than 3 in (75 mm) thick unless otherwise shown on the plans. End bells or couplings shall be installed flush with the concrete encasement at access points.



Conduits forming the duct bank shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 in to anchor the assembly into the earth prior to placing the concrete encasement. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed at 5 ft intervals. Spacers shall be in the proper sizes and configurations to fit the conduits. Locking collars and spacers shall be submitted to the Engineer for review prior to use.

When specified, the Contractor shall reinforce the bottom side and top of encasements with steel reinforcing mesh or fabric or other approved metal reinforcement. When directed, the Contractor shall supply additional supports where the ground is soft and boggy, where ducts cross under roadways, or where shown on the plans. Under such conditions, the complete duct structure shall be supported on reinforced concrete footings, piers, or piles located at approximately 5 ft (150 cm) intervals.

All pavement surfaces that are to have ducts installed therein shall be neatly saw cut to form a vertical face. All excavation shall be included in the contract with price for the duct.

Install a plastic, detectable, color as noted, 4 - 6 in (75 - 150 mm) wide tape 8 in (200 mm) minimum below grade above all underground conduit or duct lines not installed under pavement.

When existing cables are to be placed in split duct, encased in concrete, the cable shall be carefully located and exposed by hand tools. Prior to being placed in duct, the Engineer shall be notified so that he may inspect the cable and determine that it is in good condition. Where required, split duct shall be installed as shown on the drawings or as required by the Engineer.

**110-3.3 CONDUITS WITHOUT CONCRETE ENCASEMENT.** Trenches for single-conduit lines shall be not less than 6 in (150 mm) nor more than 12 in (300 mm) wide, and the trench for 2 or more conduits installed at the same level shall be proportionately wider. Trench bottoms for conduits without concrete encasement shall be made to conform accurately to grade so as to provide uniform support for the conduit along its entire length.

Unless otherwise shown on the plans, a layer of fine earth material, at least 4 in (100 mm) thick (loose measurement) shall be placed in the bottom of the trench as bedding for the conduit. The bedding material shall consist of soft dirt, sand or other fine fill, and it shall contain no particles that would be retained on a 1/4 in (6 mm) sieve. The bedding material shall be tamped until firm. Flowable backfill may alternatively be used.

Unless otherwise shown on plans, conduits shall be installed so that the tops of all conduits are at least 18 in (45 cm) below the finished grade.

When two or more individual conduits intended to carry conductors of equivalent voltage insulation rating are installed in the same trench without concrete encasement, they shall be spaced not less than 2 in (50 mm) apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 in (150 mm) apart in a vertical direction. Where two or more individual conduits intended to carry conductors of differing voltage insulation rating are installed in the same trench without concrete encasement, they shall be spaced not less than 3 in (75 mm) apart (measured from outside wall to outside wall) in a horizontal direction and not less than 6 in (150 mm) apart in a vertical direction.

Trenches shall be opened the complete length between normal termination points before conduit is installed so that if any unforeseen obstructions are encountered, proper provisions can be made to avoid them.

Conduits shall be installed using conduit spacers. No. 4 reinforcing bars shall be driven vertically into the soil a minimum of 6 in to anchor the assembly into the earth while backfilling. For this purpose, the spacers shall be fastened down with locking collars attached to the vertical bars. Spacers shall be installed

at 5 ft intervals. Spacers shall be in the proper sizes and configurations to fit the conduits. Locking collars and spacers shall be submitted to the Engineer for review prior to use.

**110-3.4 MARKERS.** The location of each end and of each change of direction of conduits and duct banks shall be marked by a concrete slab marker 2 feet (60 cm) square and 4 - 6 in (100 - 150 mm) thick extending approximately 1 in (25 mm) above the surface. The markers shall also be located directly above the ends of all conduits or duct banks, except where they terminate in a junction/access structure or building.

The Contractor shall impress the word "DUCT" or "CONDUIT" on each marker slab. The Contractor shall also impress on the slab the number and size of conduits beneath the marker along with all other necessary information as determined by the Engineer. The letters shall be 4 in (100 mm) high and 3 in (75 mm) wide with width of stroke  $\frac{1}{2}$  in (12 mm) and  $\frac{1}{4}$  in (6 mm) deep or as large as the available space permits. Furnishing and installation of duct markers is incidental to the respective duct pay item.

**110-3.5 BACKFILLING FOR CONDUITS.** For conduits, 8 in (200 cm) of sand, soft earth, or other fine fill (loose measurement) shall be placed around the conduits ducts and carefully tamped around and over them with hand tampers. The remaining trench shall then be backfilled and compacted in accordance with Item P-152 "Excavation and Embankment" except that material used for back fill shall be select material not larger than 4 in in diameter.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during back, filling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface: except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of in accordance with instructions issued by the Engineer.

**110-3.6 BACKFILLING FOR DUCT BANKS.** After the concrete has cured, the remaining trench shall be backfilled and compacted in accordance with Item P-152 "Excavation and Embankment" except that the material used for backfill shall be select material not larger than 4 in in diameter. In addition to the requirements of P-152, where duct banks are installed under pavement, one moisture/density test per lift shall be made for each 250 linear feet of duct bank or one work period's construction, whichever is less.

Flowable backfill may alternatively be used.

Trenches shall not contain pools of water during backfilling operations.

The trench shall be completely backfilled and tamped level with the adjacent surface: except that, where sod is to be placed over the trench, the backfilling shall be stopped at a depth equal to the thickness of the sod to be used, with proper allowance for settlement.

Any excess excavated material shall be removed and disposed of in accordance with instructions issued by the Engineer.

**110-3.7 RESTORATION.** Where sod has been removed, it shall be replaced as soon as possible after the backfilling is completed. All areas disturbed by the work shall be restored to its original condition. The restoration shall include **sodding** shown on the plans. The Contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance. All restoration shall be considered incidental to the respective L-110 pay item.

## METHOD OF MEASUREMENT

No separate Method or Measurement for Payment.

## MATERIAL REQUIREMENTS

|                                         |                                                                                                                                                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fed. Spec. W-C-1094                     | Conduit and Conduit Fittings; Plastic, Rigid (cancelled; replaced by UL 514 Boxes, Nonmetallic Outlet, Flush Device Boxes, & Covers, and UL 651 Standard for Conduit & Rigid PVC) |
| Underwriters Laboratories Standard 6    | Rigid Metal Conduit                                                                                                                                                               |
| Underwriters Laboratories Standard 514B | Fittings for Cable and Conduit                                                                                                                                                    |
| Underwriters Laboratories Standard 1242 | Intermediate Metal Conduit                                                                                                                                                        |
| Underwriters Laboratories Standard 651  | Schedule 40 and 80 Rigid PVC Conduit (for Direct Burial)                                                                                                                          |
| Underwriters Laboratories Standard 651A | Type EB and A Rigid PVC Conduit and HDPE Conduit (for concrete encasement)                                                                                                        |

END OF ITEM L-110

## **Item L-115 Electrical Manholes and Junction Structures**

### **DESCRIPTION**

**115-1.1** This item shall consist of electrical manholes and junction structures (handholes, pull boxes, junction cans, etc.) installed in accordance with this specification, at the indicated locations and conforming to the lines, grades and dimensions shown on the plans or as required by the Engineer. This item shall include the installation of each electrical manhole and/or junction structures with all associated excavation, backfilling, sheeting and bracing, concrete, reinforcing steel, ladders, appurtenances, testing, dewatering and restoration of surfaces to the satisfaction of the Engineer.

### **EQUIPMENT AND MATERIALS**

#### **115-2.1 GENERAL.**

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when so requested by the Engineer.

b. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

c. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. [The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section.] The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

**115-2.2 CONCRETE STRUCTURES.** Cast-in-place concrete structures shall conform to the details and dimensions shown on the plans.

Provide precast concrete structures where shown on the plans. Precast concrete structures shall be an approved standard design of the manufacturer. Precast units shall have mortar or Bitumastic sealer placed between all joints to make them watertight. The structure shall be designed to withstand [ 1b aircraft] loads, unless otherwise shown on the plans. Openings or knockouts shall be provided in the structure as detailed on the plans.

Threaded inserts and pulling eyes shall be cast in as shown.

If the Contractor chooses to propose a different structural design, signed and sealed shop drawings, design calculations, and other information requested by the Engineer shall be submitted by the Contractor to allow for a full evaluation by the Engineer. The Engineer shall review in accordance with the process defined in the General Provisions.

**115-2.3 JUNCTION CANS.** Junction Cans shall be L-867 Class 1 (non-load bearing) or L-868 Class 1 (load bearing) cans encased in concrete. The cans shall have a galvanized steel blank cover, gasket, and stainless steel hardware. Covers shall be 3/8" thickness for L-867 and 3/4" thickness for L-868.

**115-2.4 MORTAR.** The mortar shall be composed of one part of Portland cement and two parts of mortar sand, by volume. The Portland cement shall conform to the requirements of ASTM C 150, Type I. The sand shall conform to the requirements of ASTM C 144. Hydrated lime may be added to the mixture of sand and cement in an amount not to exceed 15 percent of the weight of cement used. The hydrated lime shall meet the requirements of ASTM C 6. The water shall be clean and free of deleterious amounts of acid, alkalis or organic material. If the water is of questionable quality, it shall be tested in accordance with AASHTO T-26.

**115-2.5 CONCRETE.** All concrete used in structures shall conform to the requirements of Item P-610, Structural Portland Cement Concrete.

**115-2.6 FRAMES AND COVERS.** The frames shall conform to one of the following requirements.

- |    |                     |                                        |
|----|---------------------|----------------------------------------|
| a. | ASTM A 48           | Gray iron castings                     |
| b. | ASTM A 47           | Malleable iron castings                |
| c. | ASTM A 27           | Steel castings                         |
| d. | ASTM A 283, Grade D | Structural steel for grates and frames |
| e. | ASTM A 536          | Ductile iron castings                  |
| f. | ASTM A 897          | Austempered ductile iron castings      |

All castings specified shall withstand a maximum tire pressure of [ psi] and maximum load of [ lb].

All castings or structural steel units shall conform to the dimensions shown on the plans and shall be designed to support the loadings specified.

Each frame and cover unit shall be provided with fastening members to prevent it from being dislodged by traffic, but which will allow easy removal for access to the structure.

All castings shall be thoroughly cleaned. After fabrication, structural steel units shall be galvanized to meet the requirements of ASTM A 123.

Each cover shall have the word "ELECTRIC" or other approved designation cast on it. Each frame and cover shall be as shown on the plans or approved equivalent. No cable notches are required.

**115-2.7 LADDERS.** Ladders, if specified, shall be galvanized steel or as shown on the plans.

**115-2.8 REINFORCING STEEL.** All reinforcing steel shall be deformed bars of new billet steel meeting the requirements of ASTM A 615, Grade 60.

**115-2.9 BEDDING/SPECIAL BACKFILL.** Bedding or special backfill shall be as shown on the plans.

**115-2.10 FLOWABLE BACKFILL.** Flowable material used to backfill shall conform to the requirements of Item P-153 "Controlled Low Strength Material".

**115-2.11 CABLE TRAYS.** Cable trays shall be of galvanized steel, plastic, or aluminum. Cable trays shall be located as shown on the plans.

**115-2.12 PLASTIC CONDUIT.** Plastic conduit shall comply with Item L-110 - Airport Underground Electrical Duct Banks and Conduits.

**115-2.13 CONDUIT TERMINATORS.** Conduit terminators shall be pre-manufactured for the specific purpose and sized as required or as shown on the plans.

**115-2.14 PULLING-IN IRONS.** Pulling-in irons shall be manufactured with 7/8 in (22 mm) diameter hot-dipped galvanized steel or stress-relieved carbon steel roping designed for concrete applications (7 strand, 1/2 in diameter with an ultimate strength of 270,000 psi). Where stress-relieved carbon steel roping is used, a rustproof sleeve shall be installed at the hooking point and all exposed surfaces shall be encapsulated with a polyester coating to prevent corrosion.

**115-2.15 GROUND RODS.** Ground rods shall be one piece, [solid stainless steel] [copper] or [copper clad]. The ground rods shall be of the length and diameter specified on the plans, but in no case shall they be less than 8-feet (240 cm) long nor less than 5/8 in (15 mm) in diameter.

## CONSTRUCTION METHODS

**115-3.1 UNCLASSIFIED EXCAVATION.** It is the Contractor's responsibility to locate existing utilities within the work area prior to excavation. Damage to utility lines, through lack of care in excavating, shall be repaired or replaced to the satisfaction of the Engineer without additional expense to the Owner.

The Contractor shall perform excavation for structures and structure footings to the lines and grades or elevations shown on the plans or as staked by the Engineer. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown.

All excavation shall be unclassified and shall be considered incidental to the respective L-115 pay item of which it is a component part. Dewatering necessary for L-115 structure installation, erosion and turbidity control, in accordance with Federal, State, and Local requirements is incidental to its respective pay item as a part of Item L-115. The cost of all excavation regardless of type of material encountered, shall be included in the unit price bid for the L-115 Item.

Boulders, logs and all other objectionable material encountered in excavation shall be removed. All rock and other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped or serrated, as directed by the Engineer. All seams, crevices, disintegrated rock and thin strata shall be removed. When concrete is to rest on a surface other than rock, special care shall be taken not to disturb the bottom of the excavation. Excavation to final grade shall not be made until just before the concrete or reinforcing is to be placed.

The Contractor shall provide all bracing, sheeting and shoring necessary to implement and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheeting and shoring shall be included in the unit price bid for the structure.

Unless otherwise provided, bracing, sheeting and shoring involved in the construction of this item shall be removed by the Contractor after the completion of the structure. Removal shall be effected in a manner that will not disturb or mar finished masonry. The cost of removal shall be included in the unit price bid for the structure.

After each excavation is completed, the Contractor shall notify the Engineer. Structures shall be placed after the Engineer has approved the depth of the excavation and the suitability of the foundation material.

Prior to installation the Contractor shall provide a minimum of 6 in of sand or a material approved by the Engineer as a suitable base to receive the structure. The base material shall be compacted and graded level and at proper elevation to receive the structure in proper relation to the conduit grade or ground cover requirements, as indicated on the plans.

**115-3.2 CONCRETE STRUCTURES.** Concrete structures shall be built on prepared foundations conforming to the dimensions and form indicated on the plans. The concrete and construction methods shall conform to the requirements specified in Item P-610. Any reinforcement required shall be placed as indicated on the plans and shall be approved by the Engineer before the concrete is placed.

**115-3.3 PRECAST UNIT INSTALLATIONS.** Precast units shall be installed plumb and true. Joints shall be made watertight by use of sealant at each tongue-and-groove joint and at roof of manhole. Excess sealant shall be removed and severe surface projections on exterior of neck shall be removed.

**115-3.4 PLACEMENT AND TREATMENT OF CASTINGS, FRAMES AND FITTINGS.** All castings, frames and fittings shall be placed in the positions indicated on the Plans or as directed by the Engineer and shall be set true to line and to correct elevation. If frames or fittings are to be set in concrete or cement mortar, all anchors or bolts shall be in place and position before the concrete or mortar is placed. The unit shall not be disturbed until the mortar or concrete has set.

Field connections shall be made with bolts, unless indicated otherwise. Welding will not be permitted unless shown otherwise on the approved shop drawings and written permission is granted by the casting manufacturer. Erection equipment shall be suitable and safe for the workman. Errors in shop fabrication or deformation resulting from handling and transportation that prevent the proper assembly and fitting of parts shall be reported immediately to the Engineer and approval of the method of correction shall be obtained. Approved corrections shall be made at Contractor's expense.

Anchor bolts and anchors shall be properly located and built into connection work. Bolts and anchors shall be preset by the use of templates or such other methods as may be required to locate the anchors and anchor bolts accurately.

Pulling-in irons shall be located opposite all conduit entrances into structures to provide a strong, convenient attachment for pulling-in blocks when installing cables. Pulling-in irons shall be set directly into the concrete walls of the structure.

**115-3.5 INSTALLATION OF LADDERS.** Ladders shall be installed such that they may be removed if necessary. Mounting brackets shall be supplied top and bottom and shall be cast in place during fabrication of the structure or drilled and grouted in place after erection of the structure.

**115-3.6 REMOVAL OF SHEETING AND BRACING.** In general, all sheeting and bracing used to support the sides of trenches or other open excavations shall be withdrawn as the trenches or other open excavations are being refilled. That portion of the sheeting extending below the top of a structure shall be withdrawn, unless otherwise directed, before more than six (6) in of material is placed above the top of the structure and before any bracing is removed. Voids left by the sheeting shall be carefully refilled with selected material and rammed tight with tools especially adapted for the purpose or otherwise as may be approved.

The Engineer may order the Contractor to delay the removal of sheeting and bracing if, in his judgment, the installed work has not attained the necessary strength to permit placing of backfill.

**115-3.7 BACKFILLING.** After a structure has been completed, the area around it shall be backfilled in horizontal layers not to exceed 6 in in thickness measured after compaction to the density requirements in Item P-152. Each layer shall be deposited all around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the Engineer.

Backfill shall not be placed against any structure until permission is given by the Engineer. In the case of concrete, such permission shall not be given until tests made by the laboratory under supervision of the Engineer establish that the concrete has attained sufficient strength to provide a factor of safety against damage or strain in withstanding any pressure created by the backfill or the methods used in placing it.

Where required, the Engineer may direct the Contractor to add, at his own expense, sufficient water during compaction to assure a complete consolidation of the backfill. The Contractor shall be responsible for all damage or injury done to conduits, duct banks, structures, property or persons due to improper placing or compacting of backfill.

**115-3.8 CONNECTION OF DUCT BANKS.** To relieve stress of joint between concrete-encased duct banks and structure walls, reinforcement rods shall be placed in the structure wall and shall be formed and tied into duct bank reinforcement at the time the duct bank is installed.

**115-3.9 GROUNDING.** A ground rod shall be installed in the floor of all concrete structures so that the top of rod extends 6 in (154 mm) above the floor. The ground rod shall be installed within 1 ft of a corner of the concrete structure. Ground rods shall be installed prior to casting the bottom slab. Where the soil condition does not permit driving the ground rod into the earth without damage to the ground rod, the Contractor shall drill a 4 in diameter hole into the earth to receive the ground rod. The hole around the ground rod shall be filled throughout its length, below slab, with Portland cement grout. Ground rods shall be installed in precast bottom slab of structures by drilling a hole through bottom slab and installing the ground rod. Bottom slab penetration shall be sealed watertight with Portland cement grout around the ground rod.

A grounding bus of 4/0 bare stranded copper shall be exothermically bonded to the ground rod and loop the concrete structure walls. The ground bus shall be a minimum of 1 ft above the floor of the structure and separate from other cables. No. 2 AWG bare copper pigtailed shall bond the grounding bus to all cable trays and other metal hardware within the concrete structure. Connections to the grounding bus shall be exothermic. Hardware connections may be mechanical, using a lug designed for that purpose.

**115-3.10 CLEANUP AND REPAIR.** After erection of all galvanized items, damaged areas shall be repaired by applying a liquid cold-galvanizing compound conforming MIL-P-21035. Surfaces shall be prepared and compound applied in accordance with manufacturer's recommendations.

Prior to acceptance, the entire structure shall be cleaned of all dirt and debris.

**115-3.11 RESTORATION.** After the backfill is completed, the Contractor shall dispose of all surplus material, dirt and rubbish from the site. The Contractor shall restore all disturbed areas equivalent to or better than their original condition. All sodding, grading and restoration shall be considered incidental to the respective L-115 pay item.

The Contractor shall grade around structures as required to provide positive drainage away from the structure.

Areas with special surface treatment, such as roads, sidewalks, or other paved areas shall have backfill compacted to match surrounding areas, and surfaces shall be repaired using materials comparable to original materials.



After all work is completed, the Contractor shall remove all tools and other equipment, leaving the entire site free, clear and in good condition.

**115-3.12 INSPECTION.** Prior to final approval, the electrical structures shall be thoroughly inspected for conformance with the plans and this specification. Any indication of defects in materials or workmanship shall be further investigated and corrected. The earth resistance to ground of each ground rod shall not exceed 25 ohms. Each ground rod shall be tested using the fall-of-potential ground impedance test as described by ANSI IEEE Standard 81. This test shall be performed prior to establishing connections to other ground electrodes.

**115-3.13 Manhole Elevation Adjustments.** The Contractor shall adjust the tops of existing manholes in areas designated in the Contract Documents to the new elevations shown. The Contractor shall be responsible for determining the exact height adjustment required to raise the top of each manhole to the new elevations. The existing top elevation of each manhole to be adjusted shall be determined in the field and subtracted/added from the proposed top elevation.

The Contractor shall remove/extend the existing top section or ring and cover on the manhole structure or manhole access. The Contractor shall then install precast concrete sections or grade rings of the required dimensions to adjust the manhole top to the new proposed elevation or shall cut the existing manhole walls to shorten the existing structure, as required by final grades. Finally, the Contractor shall reinstall the manhole top section or ring and cover on top and check the new top elevation.

The Contractor shall construct a concrete slab around the top of adjusted structures located in graded areas that are not to be paved. The concrete slab shall conform to the dimensions shown on the plans.

**115-3.14 Duct Extension to Existing Ducts.** Where existing concrete encased ducts are to be extended, the duct extension shall be concrete encased plastic conduit. The fittings to connect the ducts together shall be standard manufactured connectors designed and approved for the purpose. The duct extensions shall be installed according to the concrete encased duct detail and as shown on the plans.

#### METHOD OF MEASUREMENT

No separate Method or Measurement for Payment.

## BASIS OF PAYMENT

No separate Method or Measurement for Payment.

## MATERIAL REQUIREMENTS

|                  |                                                                                                                                               |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| ANSI/IEEE Std 81 | IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System                                 |
| AC 150/5345-7    | Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits                                                            |
| AC 150/5345-26   | Specification for L-823 Plug and Receptacle Cable Connectors                                                                                  |
| FED SPEC J-C-30  | Cable and Wire, Electrical Power, Fixed Installation (cancelled; replaced by AA-59544 Cable and Wire, Electrical (Power, Fixed Installation)) |
| ASTM B.3         | Soft or Annealed Copper Wire                                                                                                                  |
| ASTM B.8         | Concentric-Lay-Stranded Copper Conductor, Hard, Medium-Hard, or Soft                                                                          |

END OF ITEM L-115

## **Item L-119 Airport Obstruction Lights**

### **DESCRIPTION**

**119-1.1** This item shall consist of furnishing and installing obstruction lights in accordance with these specifications. Included in this item shall be the furnishing and installing of wood poles, steel or iron pipes, or other supports as required in the plans or specifications.

This item shall also include all wire and cable connections, the furnishing and installing of all necessary conduits and fittings, insulators, pole steps, pole cross arms, and the painting of poles and pipes. In addition, it includes the furnishing and installing of all lamps and, if required, the furnishing and installing of insulating transformers, the servicing and testing of the installation and all incidentals necessary to place the lights in operation as completed units to the satisfaction of the Engineer.

### **EQUIPMENT AND MATERIALS**

#### **119-2.1 GENERAL.**

**a.** Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified and listed under Advisory Circular (AC) 150/5345-53, Airport Lighting Equipment Certification Program.

**b.** All other equipment and materials covered by other reference specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer.

**c.** Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

**d.** All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

**e.** The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. [The Contractor's submittals shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section.] The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

f. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least [twelve (12) months] from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

**119-2.2 OBSTRUCTION LIGHTS.** The obstruction lights shall conform to the requirements of AC 150/5345-43, Specification for Obstruction Lighting Equipment.

**119-2.3 ISOLATION TRANSFORMERS.** Where required for series circuits, the isolation transformers shall conform to the requirements of AC 150/5345-47, Isolation Transformers for Airport Lighting Systems.

**119-2.4 TRANSFORMER HOUSING.** Transformer housings, if specified, shall conform to AC 150/5345-42, Specification for Airport Light Base and Transformer Housings, Junction Boxes, and Accessories.

**119-2.5 CONDUIT.** Steel conduit and fittings shall be in accordance with Underwriters Laboratories Standard 6, 514, and 1242.

**119-2.6 PLASTIC CONDUIT (for use below grade only).** Plastic conduit and fittings shall conform to the requirements of Fed. Spec. W--C-1094 and Underwriters Laboratories Standards UL-651 and shall be one of the following, as shown on the plans:

- a. Type I--Schedule 40 PVC suitable for underground use either direct-buried or encased in concrete.
- b. Type II--Schedule 40 PVC suitable for either above ground or underground use.

**119-2.7 WIRES.** Wires in conduit rated up to 5,000 volts shall conform to AC 150/5345 7, Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits, for rubber insulated neoprene covered wire, or Fed. Spec. J-C-30, Type RHW, for rubber insulated fibrous covered wire. For ratings up to 600 volts, thermoplastic wire conforming to Fed. Spec. J-C-30, Types TW, THW, and THWN-2, shall be used. The wires shall be of the type, size, number of conductors, and voltage shown in the plans or in the proposal. Overhead line wire from pole to pole, where specified, shall conform to ANSI/ICEA S-70-547-1992.

**119-2.8 MISCELLANEOUS.** Paint, poles, pole steps, insulators, and all other miscellaneous materials necessary for the completion of this item shall be new and first-grade commercial products. These products shall be as specified in the plans or specifications.

## CONSTRUCTION METHODS

**119-3.1 PLACING THE OBSTRUCTION LIGHTS.** The Contractor shall furnish and install single- or double-obstruction lights as specified in the proposal and shown in the plans. The obstruction lights shall be mounted on poles, buildings, or towers approximately at the location shown in the plans. The exact location shall be as directed by the Engineer.

**119-3.2 INSTALLATION ON POLES.** Where obstruction lights are to be mounted on poles, each obstruction light shall be installed with its hub at least as high as the top of the pole. All wiring shall be run in not less than 1 in (25 mm) galvanized rigid steel conduit. If specified, pole steps shall be furnished and installed, the lowest step being 5 feet (150 cm) above ground level. Steps shall be installed alternately on diametrically opposite sides of the pole to give a rise of 18 in (45 cm) for each step. Conduit shall be fastened to the pole with galvanized steel pipe straps and shall be secured by galvanized lag screws. Poles shall be painted as shown in the plans and specifications.

When obstruction lights are installed on existing telephone or power poles, a large fiber insulating sleeve of adequate diameter and not less than 4-feet (120 cm) long, shall be installed to extend 6 in (150 mm) above the conductors on the upper cross arm. In addition, the sleeve shall be at least 18 in (45 cm) below the conductors on the lower cross arm. The details of this installation shall be in accordance with the plans.

**119-3.3 INSTALLATION ON BEACON TOWER.** Where obstruction lights are installed on a beacon tower, two obstruction lights shall be mounted on top of the beacon tower using 1 in (25 mm) conduit. The conduit shall screw directly into the obstruction light fixtures and shall support them at a height of not less than 4 in (100 mm) above the top of the rotating beacon. If obstruction lights are specified at lower levels, the Contractor shall install not less than 1 in (25 mm) galvanized rigid steel conduit with standard conduit fittings for mounting the fixtures. The fixtures shall be mounted in an upright position in all cases. The conduit shall be fastened to the tower members with "wraplock" straps, clamps, or approved fasteners spaced approximately 5 feet (150 cm) apart. Three coats of aviation-orange paint shall be applied (one prime, one body, and one finish coat) to all exposed material installed.

**119-3.4 INSTALLATION ON BUILDINGS, TOWERS, SMOKESTACKS, ETC.** Where obstruction lights are to be installed on buildings or similar structures, the installation shall be made in accordance with details shown in the plans. The hub of the obstruction light shall be not less than 1 ft (30 cm) above the highest point of the obstruction except in the case of smokestacks where the uppermost units shall be mounted not less than 5 feet (150 cm), nor more than 10 feet (3 m) below the top of the stack. Conduit supporting the obstruction light units shall be fastened to wooden structures with galvanized steel pipe straps and shall be secured by 1-½ in (37 mm) No. 10 galvanized wood screws. Conduit shall be fastened to masonry structures by the use of expansion shields, screw anchors, or toggle bolts using No. 10, or larger, galvanized wood or machine screws. Conduit fastened to structural steel shall have the straps held with not less than No. 10 roundhead machine screws in drilled and tapped holes. Fastenings shall be approximately 5 feet (150 cm) apart. Three coats of aviation-orange paint shall be applied (one prime, one body, and one finish coat) to all exposed material installed.

**119-3.5 SERIES ISOLATION TRANSFORMERS.** The L-810 series obstruction light does not include a film cutout; therefore, an isolation transformer is required with each series lamp. Double series units of this type require two series insulating transformers. The transformer shall be housed in a base or buried directly in the earth in accordance with the details shown in the plans.

**119-3.6 WIRING.** The Contractor shall furnish all necessary labor and materials and shall make complete electrical connections from the underground cable or other source of power in accordance with the wiring diagram furnished with the project plans. If underground cable is required for the power feed and if duct is required under paved areas, the cable and duct shall be installed in accordance with and paid for as described in Item L-108, Underground Power Cable for Airports, and Item L-110, Airport Underground Electrical Duct Banks and Conduit.

**119-3.7 LAMPS.** The Contractor shall furnish and install in each unit one or two lamps, as required, conforming to the manufacturer's requirements.

**119-3.8 TESTS.** The installation shall be fully tested by continuous operation for not less than 1/2 hour as a completed unit prior to acceptance. These tests shall include the functioning of each control not less than 10 times.

#### METHOD OF MEASUREMENT

No separate Method or Measurement for Payment.

### MATERIAL REQUIREMENTS

|                         |                                                                                                                                                 |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| AC 150/5345-7           | Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits                                                              |
| AC 150/5345-42          | Specification for Airport Light Base and Transformer Housing, Junction Boxes, and Accessories                                                   |
| AC 150/5345-43          | Specification for Obstruction Lighting Equipment                                                                                                |
| AC 150/5345-47          | Isolation Transformers for Airport Lighting Systems                                                                                             |
| ANSI/ICEA S-70-547-1992 | Weather-Resistant Polyolefin-Covered Wire and Cable                                                                                             |
| FED SPEC J-C-30         | Cable and Wire, Electrical (Power, Fixed Installation) (cancelled; replaced by AA-59544 Cable and Wire, Electrical (Power, Fixed Installation)) |

END OF ITEM L-119

## **ITEM S001 MOBILIZATION**

**S001.01 DESCRIPTION.** This work consists of preparatory work and operations, including those necessary for movement of personnel, equipment, supplies and incidentals to the project site; the establishment of offices, buildings and other facilities necessary for work on the project; the cost of bonds and any required insurance; and other preconstruction expenses necessary for start of the work, excluding the cost of construction materials.

### **S001.02 PAYMENT.**

Payment will be made under:

| <b>Item No.</b> | <b>Pay Item</b> | <b>Pay Unit</b> |
|-----------------|-----------------|-----------------|
| S001            | Mobilization    | Lump Sum        |

## **ITEM S002 SEMIFLUSH MARKER FOR TAXIWAY CENTERLINE MARKING**

**S002-1 DESCRIPTION.** This section provides the standards for semiflush markerS for taxiway centerline marking.

**S002-2 REFERENCES.** Refer to FAA Advisory Circular No. 150/5345-39D SPECIFICATION FOR L-853, RUNWAY AND TAXIWAY RETROREFLECTIVE MARKERS.

### **S002-3 MATERIAL REQUIREMENTS.**

#### **3.1 Type I Marker, Semiflush marker for Taxiway Centerline Marking.**

##### **3.1.1 Design**

- a. Style I markers must withstand the impact of a snowplow blade without damage or must be configured so that the blade passes over the marker.
- b. The base must have adequate area to dissipate the loading specified in referenced advisory circular and provide for secure bonding to the pavement.
- c. The marker may be unidirectional or bi-directional, depending on the user's requirements.
- d. The design of the marker must minimize scratching and abrasion of the retroreflective material.

##### **3.1.2 Dimensions.**

- a. The Type I marker must not project more than 3/4 inch (20 mm) above the pavement surface.
- b. All corners and edges of the marker projecting above the pavement must be rounded to a minimum radius of 1/8 inch (3 mm).
- c. The minimum retroreflective area in each viewing direction must be 1.5 in<sup>2</sup> (9.7 cm<sup>2</sup>) for Style I markers.

##### **3.1.3 Bonding.**

- a. Type I, Style I markers bonded to the pavement surface must have a clean, flat, hard, rough-textured surface that will promote bonding.
- b. The bonding material must be specified or supplied by the manufacturer and must meet the requirements of referenced advisory circular.

### **S002-4 CONSTRUCTION REQUIREMENTS.**

- (a) General:** Clean and dry new asphaltic surface prior to installation. Install in accordance with manufacturers recommendations.

### **S002-5 MEASUREMENT.**

The semiflush marker for taxiway centerline marking will be counted in place.



**S002-6 PAYMENT.**

Payment will be made at the contract unit price per each.

Payment will be made under:

| <b>Item No.</b> | <b>Pay Item</b>                                 | <b>Pay Unit</b> |
|-----------------|-------------------------------------------------|-----------------|
| S002            | Semiflush Marker For Taxiway Centerline Marking | per Each        |

END ITEM S002

### **ITEM S003 CONSTRUCTION LAYOUT**

The Contractor will be responsible for establishing all lines and grades and staking out all work on this project, including establishing sufficient vertical and horizontal points for utility location. Owner shall provide engineering surveys to establish reference point for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the work. If the Contractor's works from intermediate bench marks shown on the plans, he is cautioned against accepting the values shown without checking against the bench mark established by the owner for vertical control on this project.

The Contractor shall employ sufficient qualified engineering personnel experienced in layout to correctly establish and keep complete and comprehensive records of all lines and grades necessary from initial layout to final acceptance. The Contractor will be liable for the accuracy of the initial layout and all subsequent alignment and elevations and shall, at his own expense, rebuild, repair or make good any portion of the work found to be incorrectly position either horizontally or vertically at any time before final acceptance. The Contractor shall notify the Owner's Representative immediately of any apparent errors in the plans.

The Owner's Representative may, at his option, make either spot or complete checks on all construction alignment and grades to determine the correctness of the survey work; however, these checks will not relieve the Contractor of his responsibility for constructing the work in the positions and to the elevations shown on the plans or approved revisions thereto.

Payment will be made under:

| <b>Item No.</b> | <b>Pay Item</b>     | <b>Pay Unit</b> |
|-----------------|---------------------|-----------------|
| S003            | Construction Layout | Lump Sum        |

END ITEM S003

## **ITEM S005 TAXIWAY LIGHTING MODIFICATIONS AND ADDITIONS**

**S005-1 DESCRIPTION.** This section provides the standards for modifications and additions of existing taxiway edge lights to support the proposed taxiway extension.

### **S005-2 CONSTRUCTION REQUIREMENTS.**

- (a) **General:** This item shall include modifications and additions of existing taxiway edge lights to support the proposed taxiway extension. Work included shall consist of providing 5KV cable in conduit, providing splices consisting of L-823 connectors with 5KV heat shrink tubing at existing edge light locations for extension of existing circuit to new lights, providing L-867 can and L-861 taxiway edge lights at new light locations, providing new Quazite boxes and conduits for taxiway crossing, providing counterpoise and safety ground conductors, and providing concrete maintenance pad. Work included shall consist of providing new L-861 MITL taxiway edge lights, mandatory and directional guidance signs, concrete maintenance pads, cans, and extension and termination of conduit and cabling to new light fixture locations.

### **S005-3 MEASUREMENT.**

There will be no separate measurement for payment.

### **S005-4 PAYMENT.**

Payment will be made under:

| <b>Item No.</b> | <b>Pay Item</b>                              | <b>Pay Unit</b> |
|-----------------|----------------------------------------------|-----------------|
| S005            | Taxiway Lighting Modifications and Additions | LUMP SUM        |

END ITEM S005

***PLANS OF PROPOSED  
CITY OF HATTIESBURG  
BOBBY L. CHAIN MUNICIPAL AIRPORT  
TAXIWAY A EXTENSION PART 2***

***CITY OF HATTIESBURG, MISSISSIPPI  
FORREST COUNTY***

***AIP NO. 3-28-0031-0025-2018***

***APRIL 2018***

MAYOR  
TOBY BARKER

CITY COUNCIL

JEFFREY GEORGE, WARD 1

DEBORAH DELGADO, WARD 2

CARTER CARROLL, WARD 3

MARY DRYDEN, WARD 4

NICHOLAS BROWN, WARD 5

SUBMITTED BY:

**ARE** <sup>SM</sup>  
CONSULTANTS

*DESIGN & MANAGEMENT  
PROFESSIONALS*

SHREVEPORT, LOUISIANA  
HAMMOND, LOUISIANA

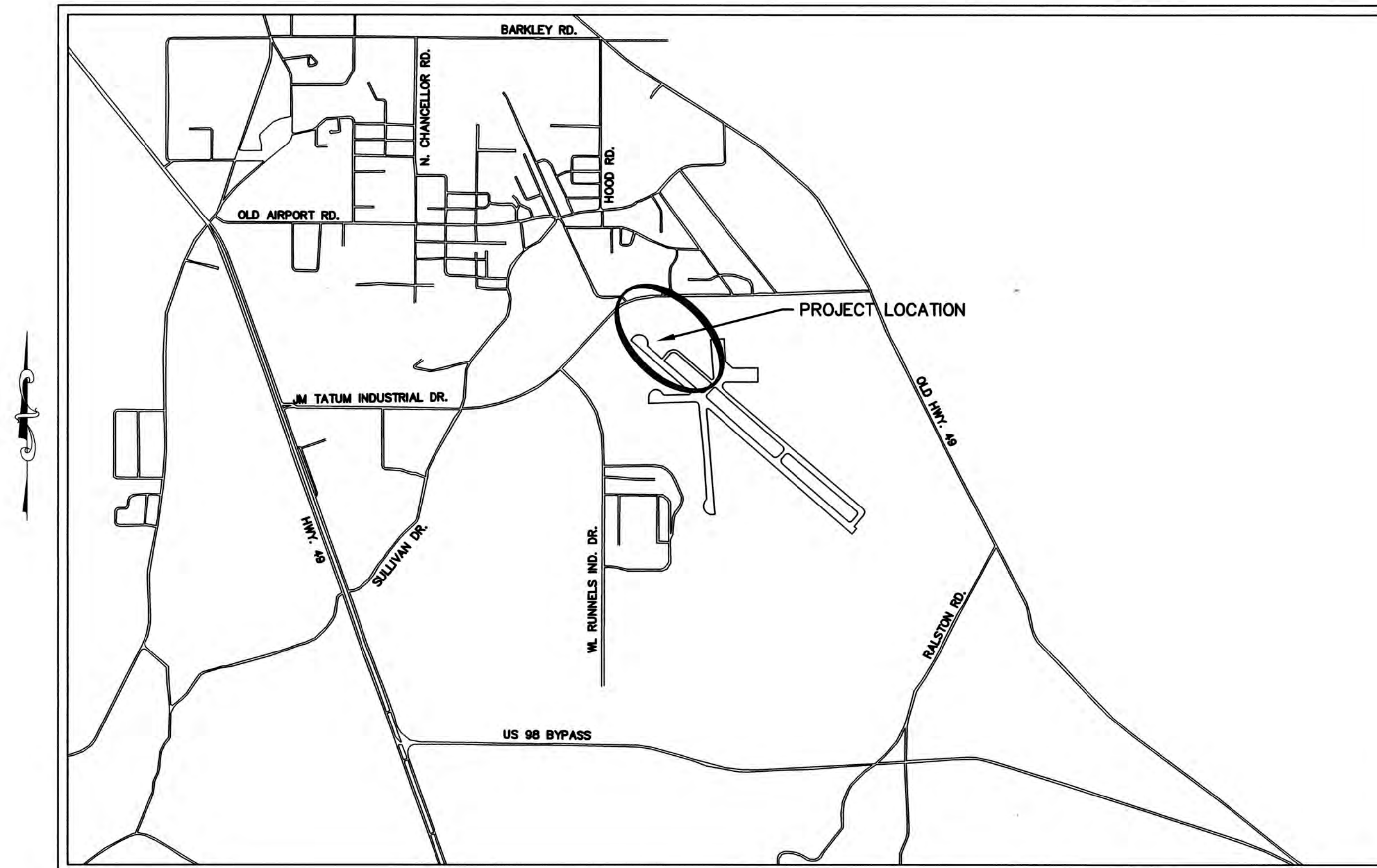
**EJES**  
INCORPORATED

201 WILKINSON STREET  
SHREVEPORT, LA. 71104



4-20-2018  
JERON ROGERS, PE  
P.E. No. 18449

| INDEX TO SHEET |                                            |
|----------------|--------------------------------------------|
| SHEET NO.      | DESCRIPTION                                |
| 1              | TITLE SHEET                                |
| 2              | GENERAL LAYOUT PLAN                        |
| 3              | QUANTITIES & GENERAL NOTES                 |
| 4              | CONSTRUCTION SEQUENCE PLAN                 |
| 5              | TYPICAL SECTION & DETAILS                  |
| 6-7            | PLAN & PROFILE                             |
| 8              | PAVEMENT MARKING PLAN                      |
| 9A-C           | TAXIWAY LIGHTING MODIFICATIONS & ADDITIONS |
| 10             | DRAINAGE & INTERSECTION GRADING            |
| 11             | DRAINAGE SECTION & DETAILS                 |
| 12-13          | EROSION CONTROL MEASURES                   |
| 14-16          | CROSS SECTIONS                             |
|                |                                            |
|                |                                            |
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|                |                                            |



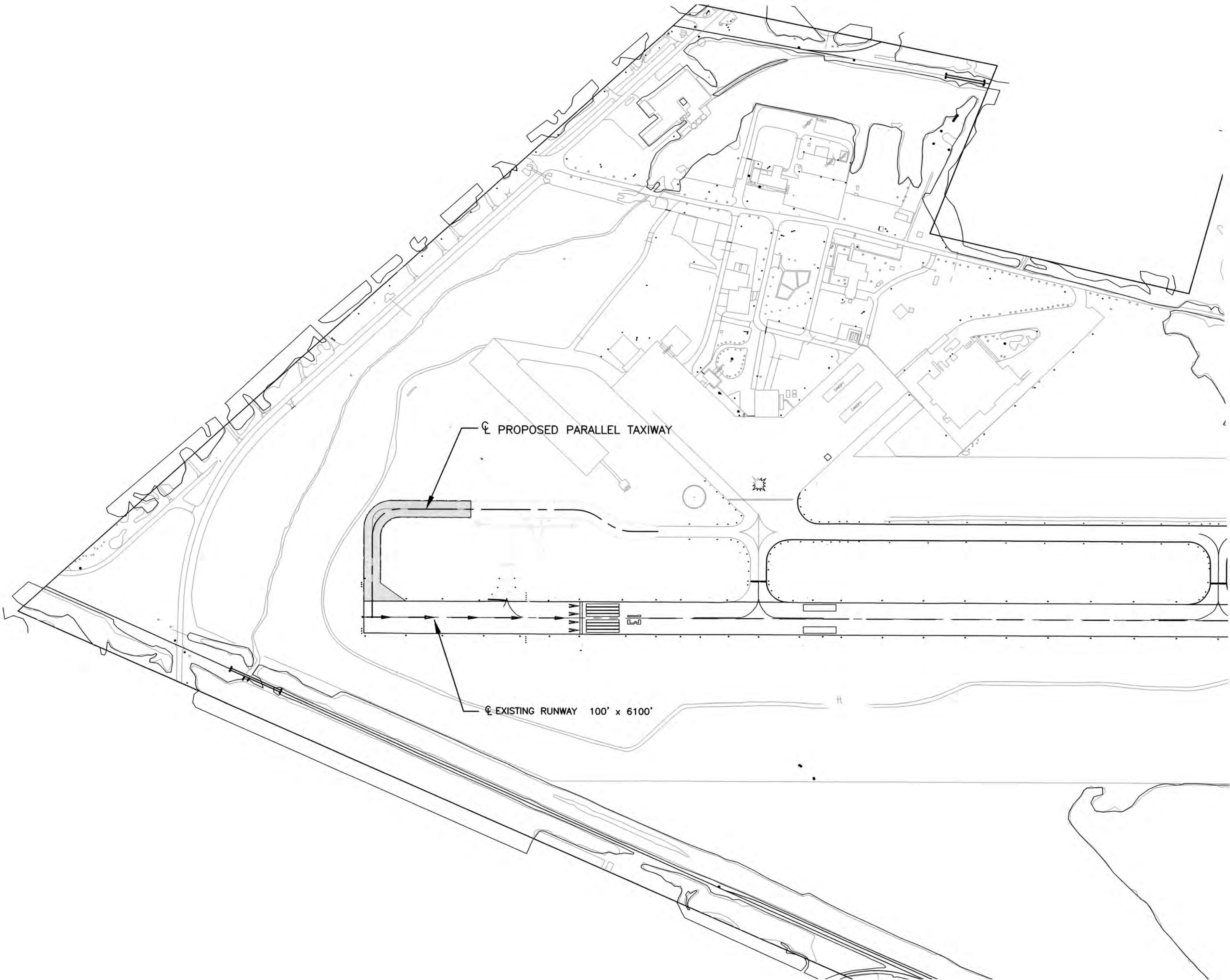
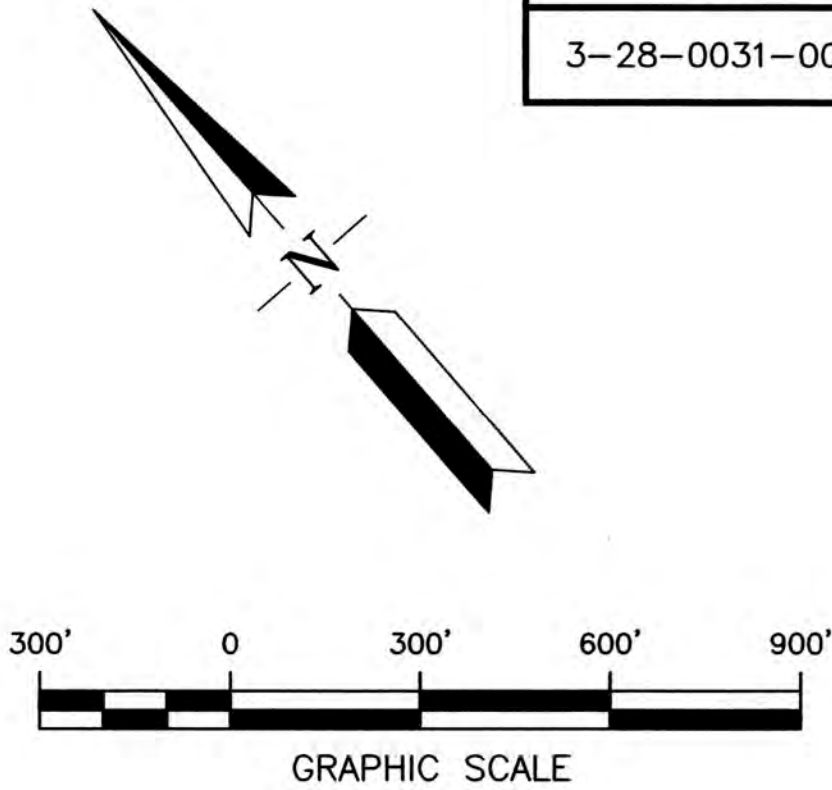
LOCATION MAP

TYPE OF CONSTRUCTION: DRAINAGE, PAVING, ELECTRICAL, PAVEMENT MARKING

| SCHEDULE OF REVISIONS |             |      |          |      |          |
|-----------------------|-------------|------|----------|------|----------|
| DATE                  | RECOMMENDED | DATE | REVISION | DATE | APPROVED |
|                       |             |      |          |      |          |
|                       |             |      |          |      |          |
|                       |             |      |          |      |          |
|                       |             |      |          |      |          |



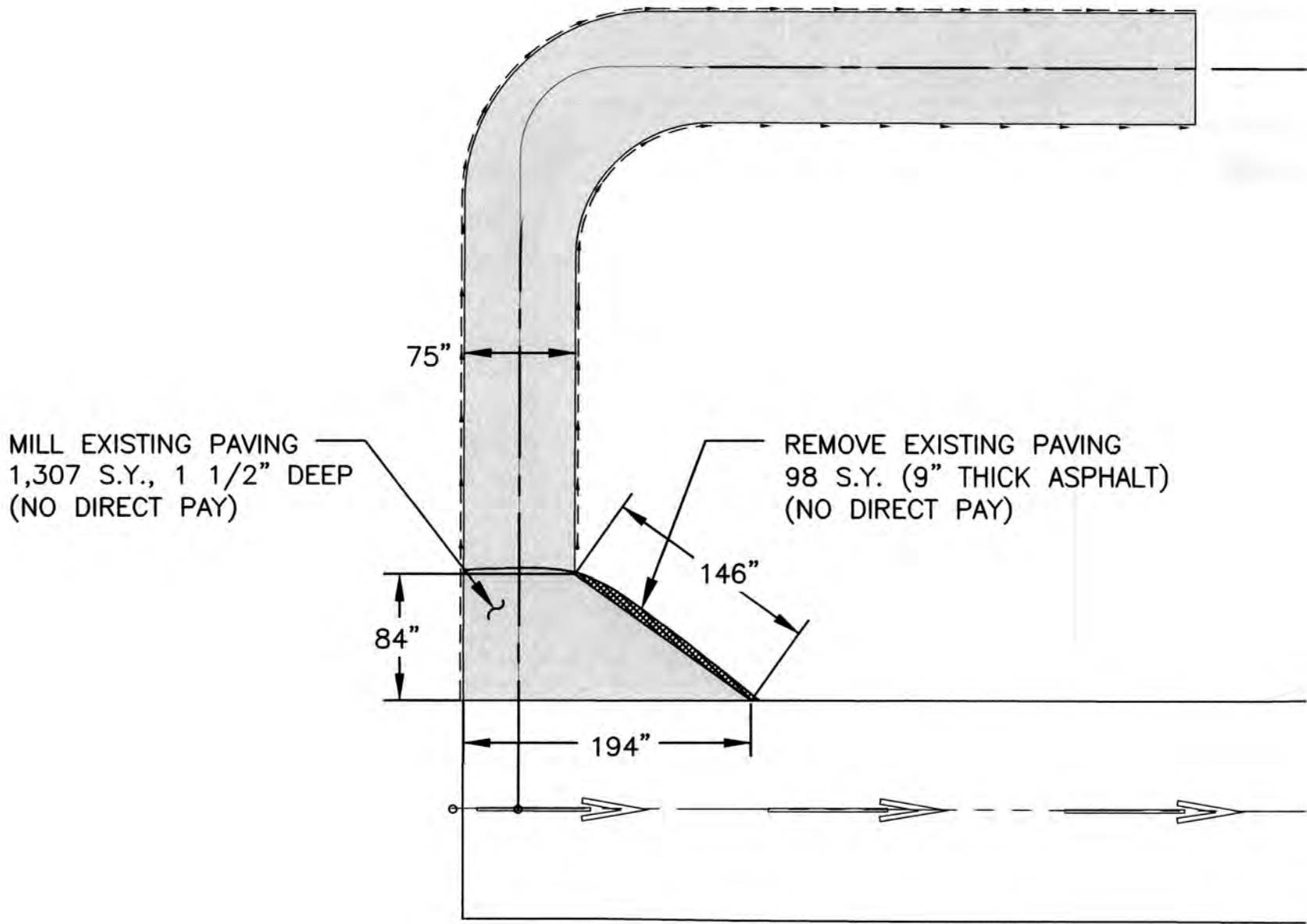
| AIP NO.             | STATE PROJECT NO. |  | SHEET NO. |  |
|---------------------|-------------------|--|-----------|--|
| 3-28-0031-0025-2018 |                   |  |           |  |



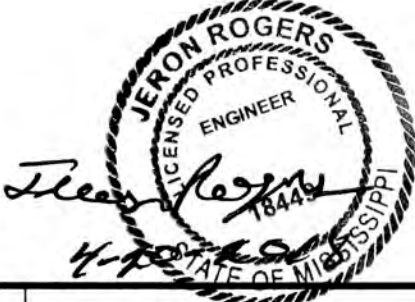
GENERAL LAYOUT PLAN

LEGEND

PROJECT



DEMOLITION PLAN  
SCALE: 1"=100'



| NO. | REVISION | BY |
|-----|----------|----|
|     |          |    |
|     |          |    |
|     |          |    |

| GENERAL LAYOUT PLAN                                                                                                  |  |                                                                                             |                    |                    |                                                         |
|----------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------|--------------------|--------------------|---------------------------------------------------------|
| TAXIWAY A EXTENSION PART 2<br>HATTIESBURG, MISSISSIPPI                                                               |  |                                                                                             |                    |                    |                                                         |
|  <b>AIR REUNION CONSULTANTS</b> |  | <b>DESIGN &amp; MANAGEMENT PROFESSIONALS</b><br>SHREVEPORT, LOUISIANA<br>HAMMOND, LOUISIANA |                    |                    |                                                         |
|                                                                                                                      |  | DRAWN BY<br>G.H.                                                                            | CHECKED BY<br>J.R. | JOB NO.<br>18-0306 | SCALE<br>1"=300'<br>DATE<br>04/18<br>SHEET<br><b>02</b> |



SUMMARY OF ESTIMATED QUANTITIES

| PROPOSED TAXIWAY |                                                                    |                     |  |          |
|------------------|--------------------------------------------------------------------|---------------------|--|----------|
|                  |                                                                    |                     |  |          |
|                  |                                                                    |                     |  |          |
| ITEM NO.         | ITEM                                                               | QUANTITY (BASE BID) |  | UNIT     |
|                  |                                                                    |                     |  |          |
| P-151            | CLEARING & DEMOLITION                                              | L.S.                |  | LUMP SUM |
| P-152-4.1        | UNCLASSIFIED EXCAVATION                                            | 2400                |  | C.Y.     |
| P-152-4.1        | UNCLASSIFIED EXCAVATION (NON PARTICIPATING)                        | 150                 |  | C.Y.     |
| P-152-4.2        | EMBANKMENT IN PLACE                                                | 1900                |  | C.Y.     |
| P-152-4.2        | EMBANKMENT IN PLACE (NON PARTICIPATING)                            | 270                 |  | C.Y.     |
| P-209            | CRUSHED AGGREGATE BASE COURSE                                      | 1656                |  | C.Y.     |
| P-209            | CRUSHED AGGREGATE BASE COURSE (NON PARTICIPATING)                  | 644                 |  | C.Y.     |
| P-401-8.1(A)     | BITUMINOUS SURFACE COURSE                                          | 1225                |  | C.Y.     |
| P-401-8.1(A)     | BITUMINOUS SURFACE COURSE (NON PARTICIPATING)                      | 325                 |  | C.Y.     |
| P-602            | BITUMINOUS PRIME COAT                                              | 1620                |  | GAL      |
| P-602            | BITUMINOUS PRIME COAT (NON PARTICIPATING)                          | 380                 |  | GAL      |
| P-603            | BITUMINOUS TACK COAT                                               | 1520                |  | GAL      |
| P-603            | BITUMINOUS TACK COAT (NON PARTICIPATING)                           | 480                 |  | GAL      |
| P-620-5.1(A)     | RUNWAY AND TAXIWAY PAINTING                                        | 3050                |  | S.F.     |
| D-701-5.1(D)     | 36" PIPE                                                           | 84                  |  | L.F.     |
|                  |                                                                    |                     |  |          |
| D-705-5.5(B)     | 6" UNDERDRAIN COMPLETE (INCLUDING POROUS BACKFILL & FILTER FABRIC) | 1700                |  | L.F.     |
| D-751-5.2        | INLET                                                              | 1                   |  | EACH     |
| T-901-5.1        | TURFING (SEED, FERTILIZER & MULCH)                                 | 3                   |  | ACRE     |
| S001             | MOBILIZATION                                                       | L.S.                |  | LUMP SUM |
| S002             | SEMIFLUSH MARKER FOR TAXIWAY CENTERLINE                            | 22                  |  | EACH     |
| S003             | CONSTRUCTION LAYOUT                                                | L.S.                |  | LUMP SUM |
| S005             | TAXIWAY LIGHTING MODIFICATIONS & ADDITIONS                         | L.S.                |  | LUMP SUM |
| I-3.2            | ADDITIONAL INSURANCE PREMIUM (NON PARTICIPATING)                   | L.S.                |  | LUMP SUM |

GENERAL NOTES

1. EXISTING UNDERGROUND UTILITY LINES ARE NOT SHOWN ON THESE PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UTILITY COMPANIES FIELD LOCATE THEIR EQUIPMENT AND FACILITIES PRIOR TO CONSTRUCTION. THE CITY OF BOGALUSA AND THE ENGINEER ASSUME NO LIABILITY FOR DAMAGES TO UTILITY LINES CAUSED BY THE CONTRACTOR. CALL "LA ONE CALL" AT 1-800-272-3020 AND UTILITY COMPANY.
2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND GRADE OF ALL PROPOSED IMPROVEMENTS. CONFLICTS OR DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
3. CONTRACTOR SHALL REPAIR DAMAGE TO EXISTING PAVEMENT, WALKS AND OTHER FACILITIES CAUSED BY CONSTRUCTION AT NO ADDITIONAL PAY.
4. ALL REQUIRED CONSTRUCTION SIGNS, BARRICADES, AND WORK ZONE TRAFFIC CONTROL SHALL COMPLY WITH FEDERAL AVIATION ADMINISTRATION REQUIREMENTS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL DISTURBED EARTH AREAS TO AN EQUAL OR BETTER CONDITION THAN THE EXISTING GROUND COVER PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR IS TO IMPLEMENT BEST-MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES TO CONTROL RUNOFF FROM CONSTRUCTION. CONTRACTOR SHALL SUPPLY AND INSTALL SILT FENCES, HAY BALES, CHECK DAMS, SILTING BASINS, OR A COMBINATION THEREOF, TO COMPLY WITH EPA STORM-WATER REGULATIONS AT NO ADDITIONAL PAY.
7. ALL EXCESS EXCAVATION AND DEBRIS CREATED BY CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR. CONTRACTOR SHALL KEEP ALL ADJACENT PUBLIC STREETS AND DRIVEWAYS FREE OF MUD AND OTHER DEBRIS DURING CONSTRUCTION.

LEGEND

| EXISTING                       |  | REQUIRED               |  | EXISTING |  |
|--------------------------------|--|------------------------|--|----------|--|
| ASPHALT PATCH (12" FULL DEPTH) |  | TELEPHONE JUNCTION BOX |  |          |  |
| ASPHALT OVERLAY                |  | TELEPHONE POLE         |  |          |  |
| ASPHALT PAVEMENT               |  | POWER POLE             |  |          |  |
| CONCRETE PAVEMENT              |  | GUY WIRE W/ ANCHOR     |  |          |  |
| DITCH OR DRAINAGE THREAD       |  | ELECTRIC SERVICE BOX   |  |          |  |
| LIGHT POLE                     |  | SPOT ELEVATION         |  |          |  |
| TURFING LIMITS                 |  | C.M.P. OR R.CP.        |  |          |  |
| FINISH GRADE                   |  | FENCE                  |  |          |  |
| UNDERDRAIN                     |  |                        |  |          |  |
| UNDERDRAIN JUNCTION BOX        |  |                        |  |          |  |
| SACKED REVETMENT (4" DEEP)     |  |                        |  |          |  |
| CONTOUR LINE                   |  |                        |  |          |  |



|     |          |    |
|-----|----------|----|
|     |          |    |
|     |          |    |
| NO. | REVISION | BY |

QUANTITIES AND GENERAL NOTES

TAXIWAY A EXTENSION PART 2  
HATTIESBURG, MISSISSIPPI

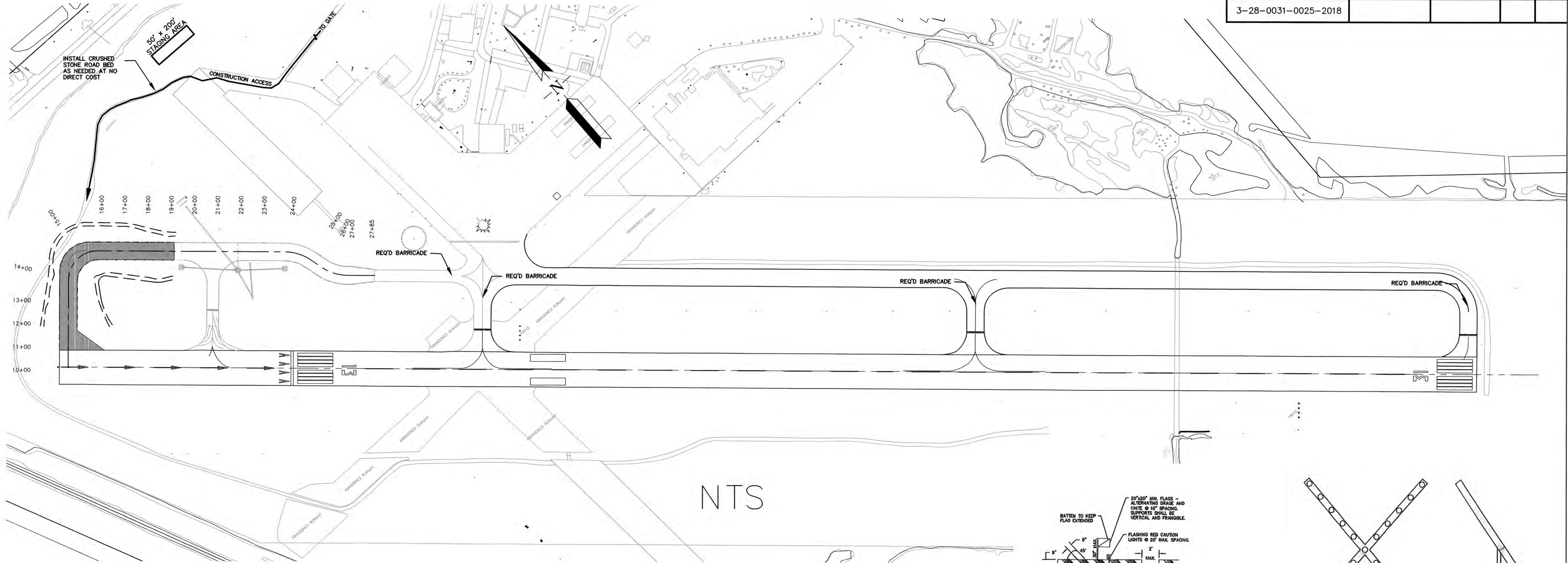


DESIGN & MANAGEMENT  
PROFESSIONALS

SHREVEPORT, LOUISIANA  
HAMMOND, LOUISIANA

|          |            |         |       |       |       |
|----------|------------|---------|-------|-------|-------|
| DRAWN BY | CHECKED BY | JOB NO. | SCALE | DATE  | SHEET |
| G.H.     | J.R.       | 18-0306 |       | 04/18 | 03    |





NTS

CONSTRUCTION CONTROL AND SAFETY NOTES

1. THE RUNWAY IS TO REMAIN OPEN THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF CLOSING 21 DAYS WHILE WORKING IN THE RUNWAY SAFETY AREA. IN THE EVENT THE RUNWAY MUST BE CLOSED DUE TO CONSTRUCTION, IT WILL BE CLOSED USING PROPER PROCEDURES AS DESCRIBED BY THE FAA. THIS WILL INCLUDE LIGHTED "X" OVER BOTH RUNWAY END IDENTIFICATION MARKINGS. THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT MANAGER OR HIS DESIGNATED REPRESENTATIVE FOR POSTING OF NOTAMS TO THE FAA AND FLIGHT SERVICES. THIS WILL INCLUDE CLOSURE AND NOTIFICATION OF CLOSURE TO ILS SYSTEMS OF THE AIRPORT.
2. THE CONTRACTOR SHALL BECOME FAMILIAR WITH ALL REQUIREMENTS APPLICABLE TO AIRPORT CONSTRUCTION AND COOPERATE WITH THE ENGINEER IN MAINTAINING A SAFE CONSTRUCTION SITE.
3. IT IS A GENERAL REQUIREMENT OF THIS PROJECT THAT THE CONTRACTOR BECOME FAMILIAR WITH ALL SECURITY ASPECTS AND RECOGNIZES THAT FROM TIME-TO-TIME THE OWNER MAY REVISE OR MODIFY THIS PROGRAM TO ENSURE SAFETY OR TO MEET FEDERAL REGULATIONS.
4. WHERE SECURITY GATES ARE TO BE INSTALLED OR USED PRIMARILY BY THE CONTRACTOR, SPECIFIC GUIDELINES MUST BE FOLLOWED.
5. THE CONTRACTOR WILL STRICTLY CONFINE THE ACTIVITIES OF ALL PERSONNEL AND EQUIPMENT TO THE WORK AREAS INDICATED FOR THIS CONTRACT.
6. THE SAFETY OF THE PROJECT IS THE ULTIMATE RESPONSIBILITY OF THE CONTRACTOR AND THIS KNOWLEDGE MUST BE DEMONSTRATED BY SUBMITTING A SCHEDULE AND DETAILED SAFETY PLAN USING THIS DOCUMENT AS A MINIMUM GUIDELINE FOR APPROVAL BY THE CONSULTING ENGINEER BEFORE CONSTRUCTION.
7. THE FIELD ENGINEER RESERVES THE RIGHT TO MODIFY THESE SAFETY GUIDELINES AS DEEMED NECESSARY TO HOLD AIRPORT/AIRCRAFT SAFETY AND QUALITY CONTROL TO THE HIGHEST STANDARD.
8. THE CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO THE DUST AND SMOKE CONTROL REQUIREMENTS OF THIS CONTRACT. THE OPERATIONS OF RUNWAYS, TAXIWAYS, AND ASSOCIATED NAVAIDS ARE ESPECIALLY SENSITIVE TO DUST AND SMOKE. THE ENGINEER RESERVES THE RIGHT TO STOP GRADING, HAULING, OR OTHER WORK IF NECESSARY TO BRING UNDER CONTROL THE DUST OR SMOKE SITUATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST AND SMOKE CONTROL WITHIN THE CONSTRUCTION LIMITS AS WELL AS ALONG ANY ROADWAYS USED BY EQUIPMENT AND VEHICLES. FAILURE TO CONTROL DUST AND SMOKE MAY RESULT IN PROJECT SUSPENSION.
9. ALL TRAFFIC WILL BE STRICTLY DIRECTED TO NOT TRAVEL ON THE RUNWAY PAVEMENT.
10. THE CONTRACTOR SHALL FULLY MOBILIZE A SUFFICIENT NUMBER OF WATER TRUCKS ON SITE. THESE WATER TRUCKS WILL BE USED CONTINUOUSLY FOR DUST CONTROL, AS ASSOCIATED NAVAIDS ARE ESPECIALLY SENSITIVE TO DUST; ALL WATERING WILL BE DIRECTED BY THE CONTRACTOR AND OVERSEEN BY THE FIELD ENGINEER.
11. THE MOISTURE CONTENT OF THE EMBANKMENT IN PLACE WILL REQUIRE CONTINUOUS MODIFICATION FOR OBTAINING THE REQUIRED DENSITY AND ALSO FOR DUST CONTROL.
12. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE AIRPORT AT NIGHT AND ENSURING BARRICADES ARE IN PLACE AND LIGHTS ARE FUNCTIONING.
13. ALL SYSTEMS TESTING MUST BE SUPERVISED OR APPROVED BY THE FIELD ENGINEER AND/OR A REPRESENTATIVE OF THE LOUISIANA DEPARTMENT OF AVIATION.
14. THE LOCATION AND SIZE OF THE CONTRACTOR'S STAGING AREAS IS SHOWN FOR REFERENCE ONLY. THE ACTUAL SIZE AND EXACT LOCATION WILL BE ESTABLISHED PRIOR TO CONSTRUCTION. THE FOLLOWING REQUIREMENTS WILL APPLY, HOWEVER:
  - A. ALL OF THE CONTRACTOR'S ACTIVITY WILL BE STAGED FROM THIS AREA. ALL FIELD OFFICE AND EMPLOYEE PARKING WILL BE WITHIN THE STAGING AREA OUTSIDE THE AIRPORT SECURITY AS SHOWN.
  - B. FENCING AROUND THE PROPOSED STAGING AREA IS SUGGESTED BUT NOT MANDATORY. SUCH FENCING SHALL BE CONSIDERED TEMPORARY AND WILL NOT BE MEASURED FOR PAVEMENT.
  - C. THE CONTRACTOR MAY DO SOME GRADING AND DRAINAGE WORK TO ADAPT THE AREA TO SPECIFIC NEEDS. UPON COMPLETION OF THE WORK, HOWEVER, THE AREA WILL BE DRESSED, SEEDED, AND RESTORED TO ITS CONDITION PRIOR TO CONSTRUCTION ACTIVITIES.
  - D. THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN LAYOUT OF THE STAGING AREA TO THE ENGINEER FOR REVIEW AND APPROVAL.
  - E. THE CONTRACTOR SHALL PROVIDE SIGNS, FABRICATED IN A COMMERCIAL SIGN SHOP, INDICATING THE NAME OF THE CONTRACTOR AND A MESSAGE DIRECTING ALL MATERIAL DELIVERIES TO THE STAGING AREA. THESE SIGNS SHALL BE LOCATED AT THE ENTRANCE TO THE STAGING AREA OFF THE PUBLIC ROADWAY. THE COST OF FABRICATING AND ERECTION OF THESE SIGNS SHALL BE INCLUDED IN OTHER ITEMS.
15. PER THE FAA, PROVIDE AT LEAST 48 HOURS NOTICE TO THE AIRPORT MANAGER WHEN THERE IS A NEEDED NOTAM (NOTICE TO AIRMEN).

SEEDING, FERTILIZING & MULCHING NOTES:

1. STORAGE, HANDLING, TRANSPORTATION AND DISTRIBUTION WILL BE AS DIRECTED BY FIELD ENGINEER.
2. NO STRAW OR HAY SHALL BE ALLOWED TO BLOW AWAY FROM THE WORK AREAS OR ONTO THE RUNWAY.
3. ANY TAR, MULCH, OR SEED THAT COVERS ANY ELECTRICAL ITEM OR OTHER EQUIPMENT WILL BE REMOVED THAT SAME DAY.
4. ALL AIRPORT EQUIPMENT SHALL BE CLEANED OF ANY TURFING MATERIAL THE SAME DAY AS DIRECTED BY FIELD ENGINEER.

CONSTRUCTION SEQUENCE

Phase I

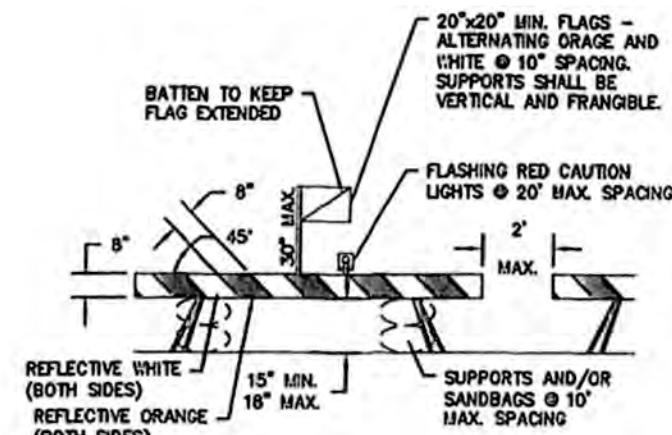
1. ESTABLISH CONTRACTOR STAGING AREA AND MOBILIZE ALL CONSTRUCTION EQUIPMENT.
2. CLEAR AND GRUB.
3. GRADING AND PAVING FOR PROPOSED TAXIWAY OUTSIDE RUNWAY SAFETY AREA.

Phase II

1. FINAL GRADING AND PAVING FOR PROPOSED TAXIWAY WITHIN THE RUNWAY SAFETY AREA.

Phase III

1. UPON ACCEPTANCE OF EARTHWORK AND DRAINAGE, SEED AND FERTILIZE ALL DISTURBED AREA WITHIN WORKING AREA.
2. CHECK ALL PERMANENT EROSION CONTROL STRUCTURES AND REPAIR IF NECESSARY.
3. REMOVE ALL EQUIPMENT AND CONTRACTOR STAGING AREA.

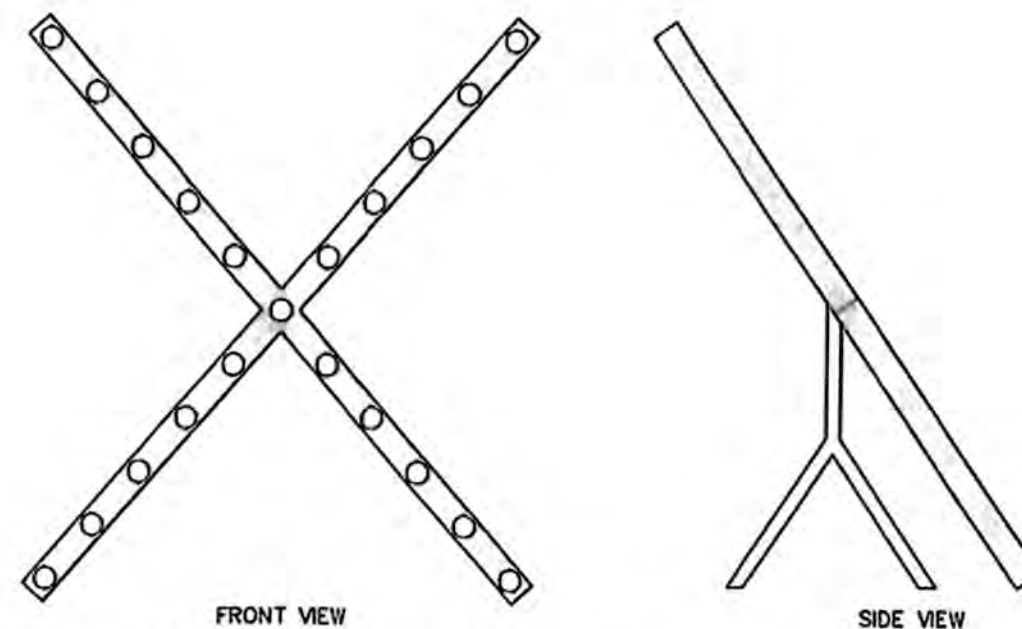


TYPE 1 BARRICADE

N.T.S.

NOTES:

1. ALL BARRICADE MATERIALS AND CAUTION LIGHTS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE REFLECTORIZED WITH SMOOTH SURFACE TYPE REFLECTIVE SHEETING.
3. BARRICADES SHALL BE PLACED CONTINUOUSLY ACROSS THE ENTIRE FACILITY TO BE CLOSED EXCEPT FOR 2 FOOT MAXIMUM GAPS AT STANDARD LENGTH PANEL ENDS.
4. THE BARRICADES SHALL BE WEIGHTED AGAINST PROPWASH AND CAPABLE OF WITHSTANDING UP TO 100 M.P.H. WIND FORCES.
5. FLASHING RED CAUTION LIGHTS SHALL BE BATTERY OPERATED AND SHALL MAINTAIN SUCH INTENSITY SO AS TO BE READILY IDENTIFIED FROM DISTANCES OF AT LEAST 200 FT. DURING DARKNESS.
6. THE CONTRACTOR SHALL CHECK ALL BARRICADES AND LIGHTS EACH DAY BEFORE LEAVING THE AIRPORT TO ENSURE LIGHTS ARE WORKING PROPERLY AND MAY NOT LEAVE WITHOUT ALL BARRICADES AND LIGHTS BEING IN PROPER WORKING ORDER.



PORTABLE ELEVATED RUNWAY CLOSURE MARKER

N.T.S.

NOTES:

1. THE PORTABLE RUNWAY CLOSURE MARKER (RCM) MUST BE TO FORM A LIGHTED X WHICH CONTAINS TWENTY-ONE (21) 83 WATT PAR 38HR BULBS.
2. THE LIGHTED X FORMED WHEN OPENED AND OPERATING WILL BE 20'-6" EACH CONTINUOUS LEG AND 14'-6" ON THE PERIPHERAL.
3. ILLUMINATION OF THE RCM WILL BE IN FLASHING MODE. THIS MUST BE CONTROLLED BY A SOLID STATE FLASHER.
4. THE RCM MUST BE ABLE TO WITHSTAND WINDS OF 40 MPH WHILE IN OPERATIONAL MODE. THIS MUST BE DOCUMENTED.
5. THE RUNWAY CLOSURE MARKER MUST BE DISCERNABLE FROM A DISTANCE OF 3 TO 5 MILES VFR DAYTIME AND A MINIMUM OF 8 MILES VFR NIGHTTIME. THESE DISTANCES MUST BE DETERMINED FROM AN AIRCRAFT USING A GPS. DOCUMENTS SUBSTANTIATING THESE TESTS SHALL BE PROVIDED BY AN INDEPENDENT THIRD PARTY.

CONSTRUCTION SEQUENCE PLAN

TAXIWAY A EXTENSION PART 2  
HATTIESBURG, MISSISSIPPI

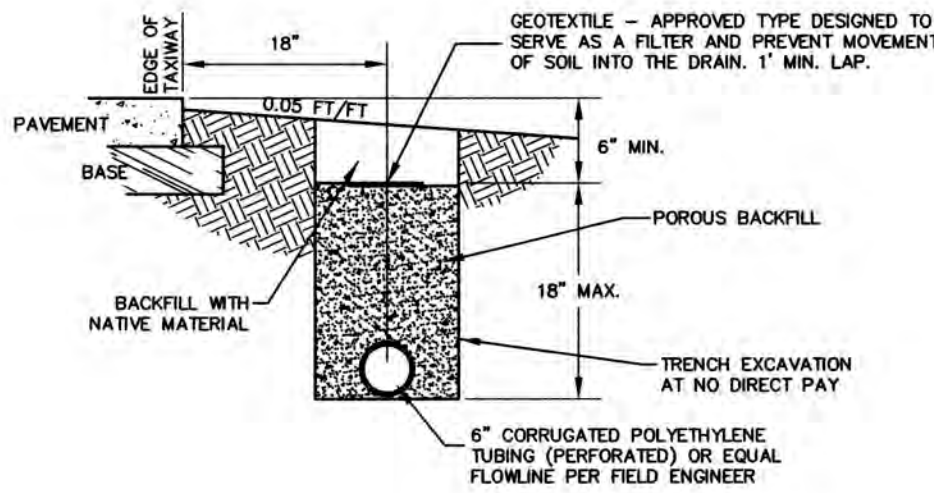
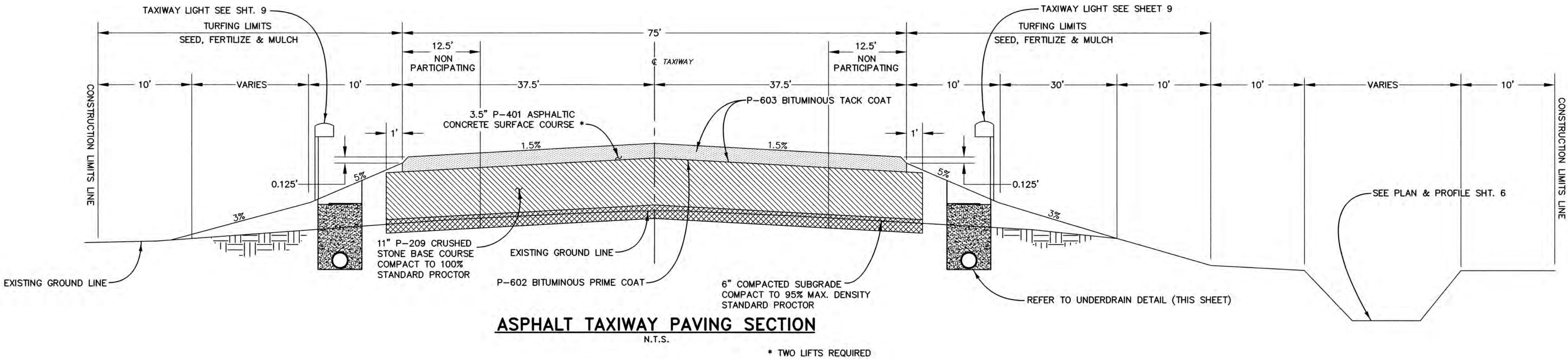
**ARE**  
AIR REUNION  
CONSULTANTS

DESIGN & MANAGEMENT  
PROFESSIONALS

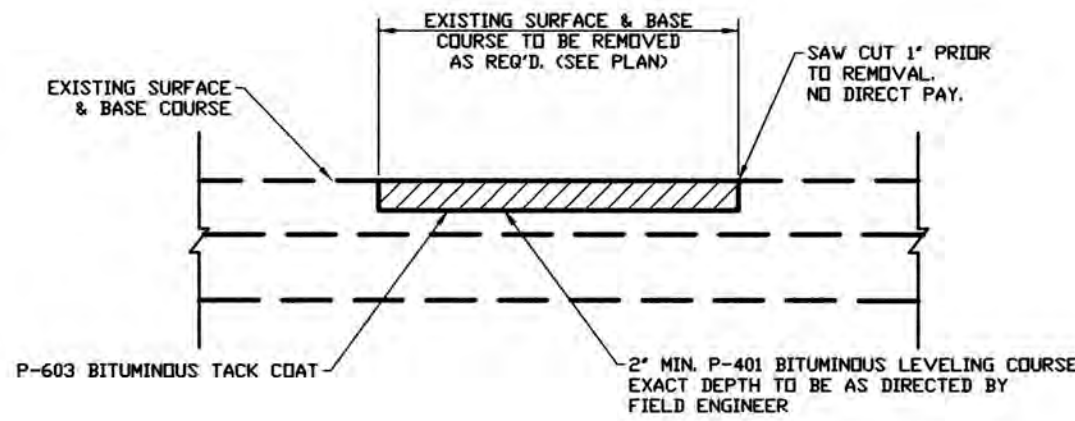
SHREVEPORT, LOUISIANA  
HAMMOND, LOUISIANA



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| 3-28-0031-0025-2018 |                   |  |           |  |



UNDERDRAIN DETAIL  
N.T.S.



BITUMINOUS SURFACE PAVEMENT REPAIR  
N.T.S.



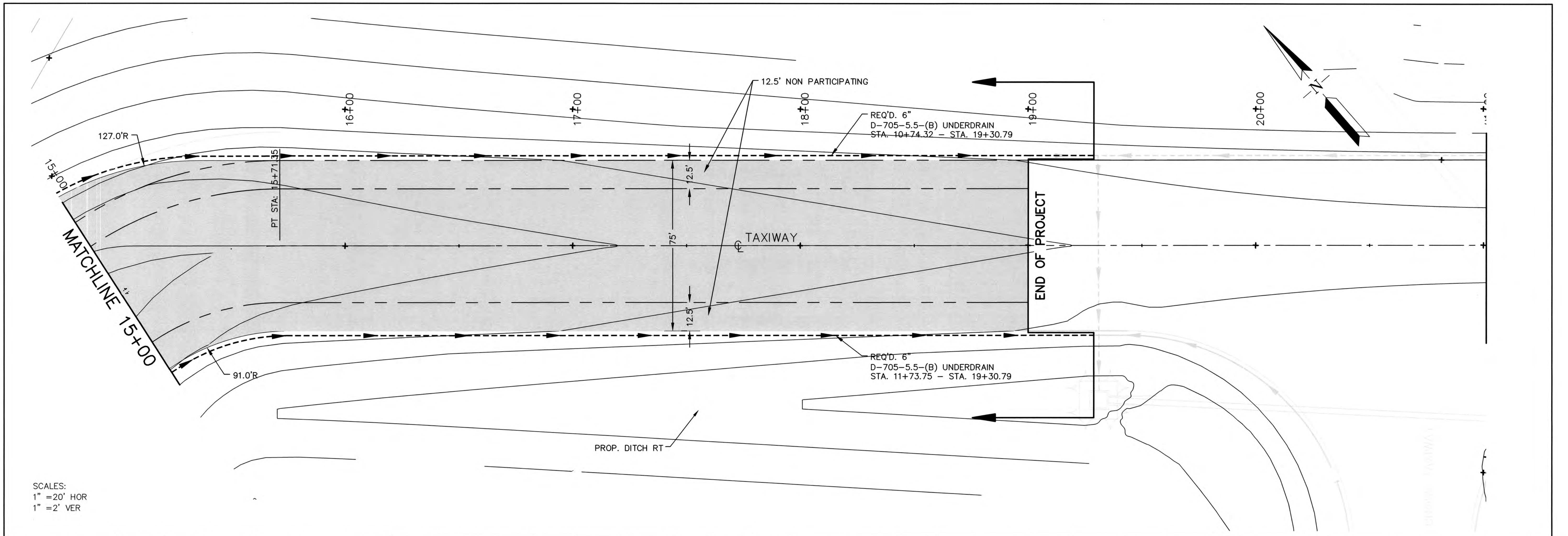
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| TYPICAL SECTION & DETAILS                                                                                            |                    |                                                                                             |       |               |
| TAXIWAY A EXTENSION PART 2<br>HATTIESBURG, MISSISSIPPI                                                               |                    |                                                                                             |       |               |
|  <b>AIR REUNION CONSULTANTS</b> |                    | <b>DESIGN &amp; MANAGEMENT PROFESSIONALS</b><br>SHREVEPORT, LOUISIANA<br>HAMMOND, LOUISIANA |       |               |
| DRAWN BY<br>G.H.                                                                                                     | CHECKED BY<br>J.R. | JOB NO.<br>18-0306                                                                          | SCALE | DATE<br>04/18 |
|                                                                                                                      |                    |                                                                                             | SHEET | <b>05</b>     |

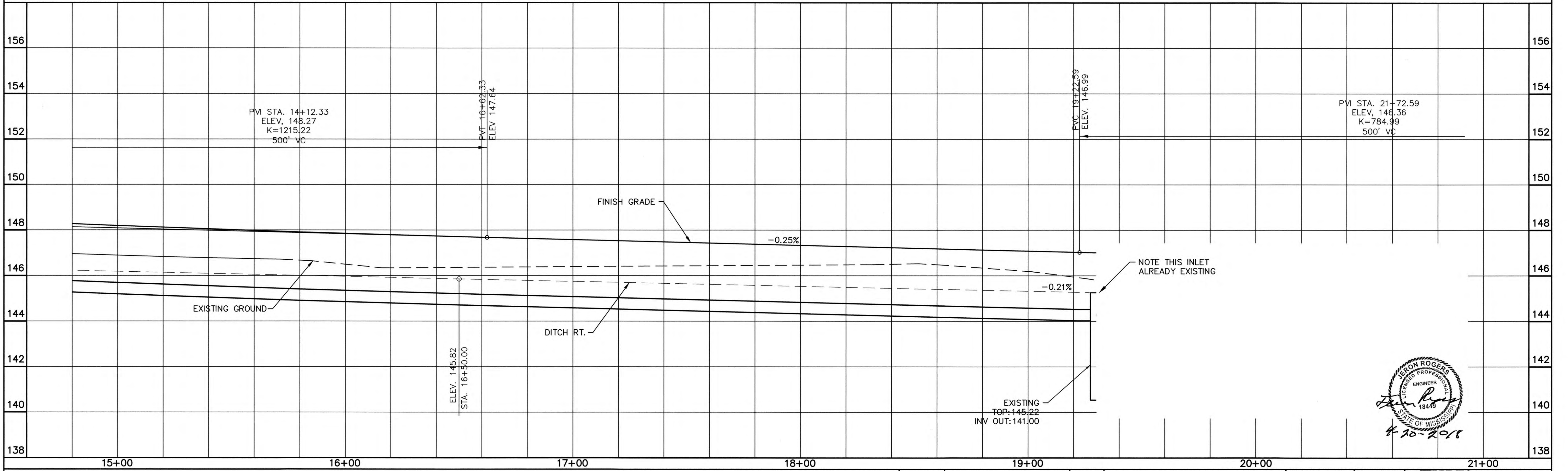








SCALES:  
1" = 20' HOR  
1" = 2' VER

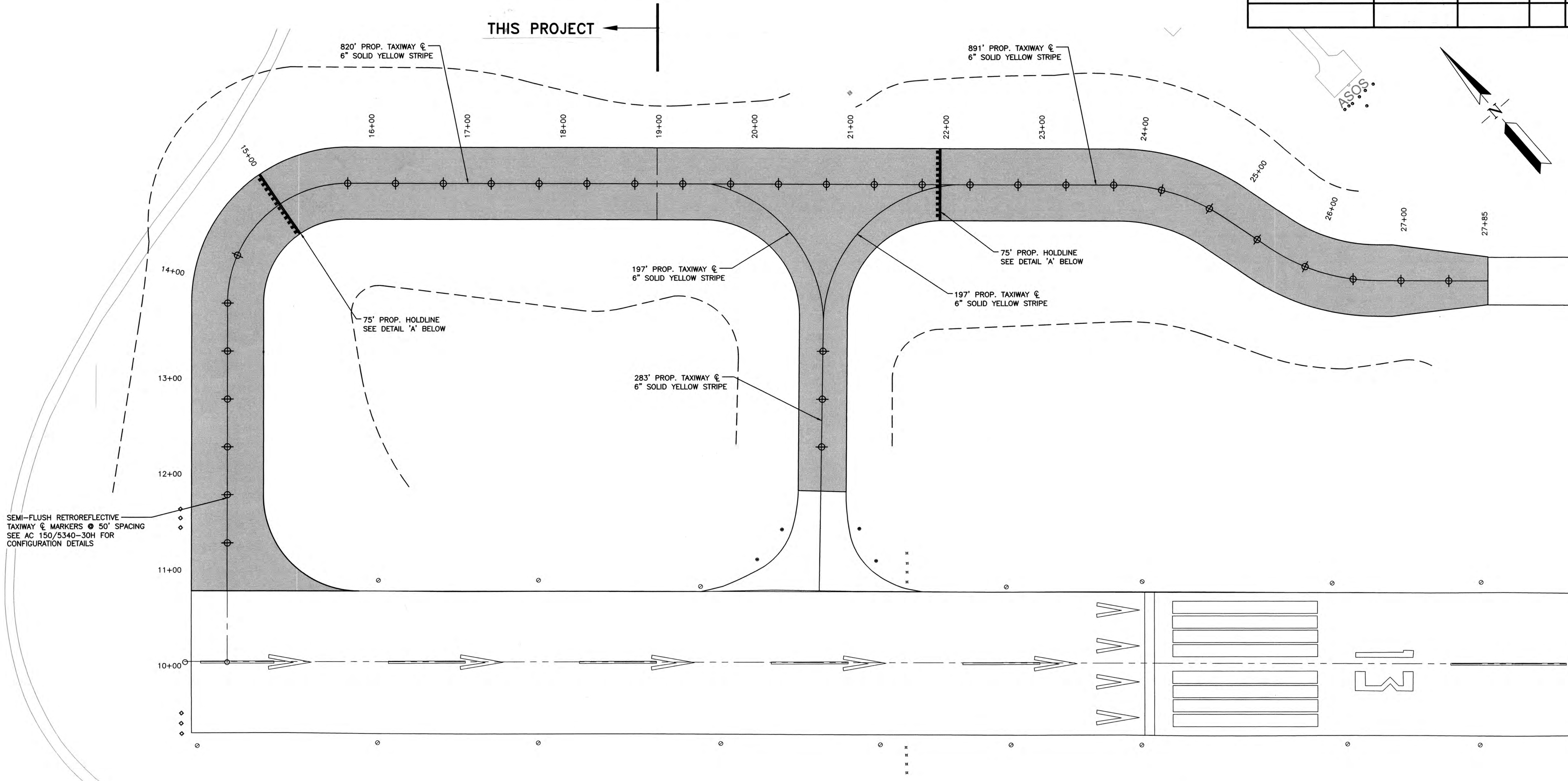


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|----------------------------------------|--|--|------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PLAN & PROFILE - TAXIWAY A EXT. PART 2 |  |  | DRAWN BY: G.H.   | 1" = 20' HOR. | <br>DESIGN & MANAGEMENT<br>PROFESSIONALS<br>SRIREYPORT, LOUISIANA<br>HAMMOND, LOUISIANA |
| BOBBY L. CHAIN MUNICIPAL AIRPORT       |  |  | CHECKED BY: J.R. | 1" = 2' VER.  |                                                                                                                                                                              |
| NO. REVISION BY                        |  |  | JOB NO: 18-0306  | SHEET NO: 07  |                                                                                                                                                                              |
|                                        |  |  | DATE: 04/18      |               |                                                                                                                                                                              |

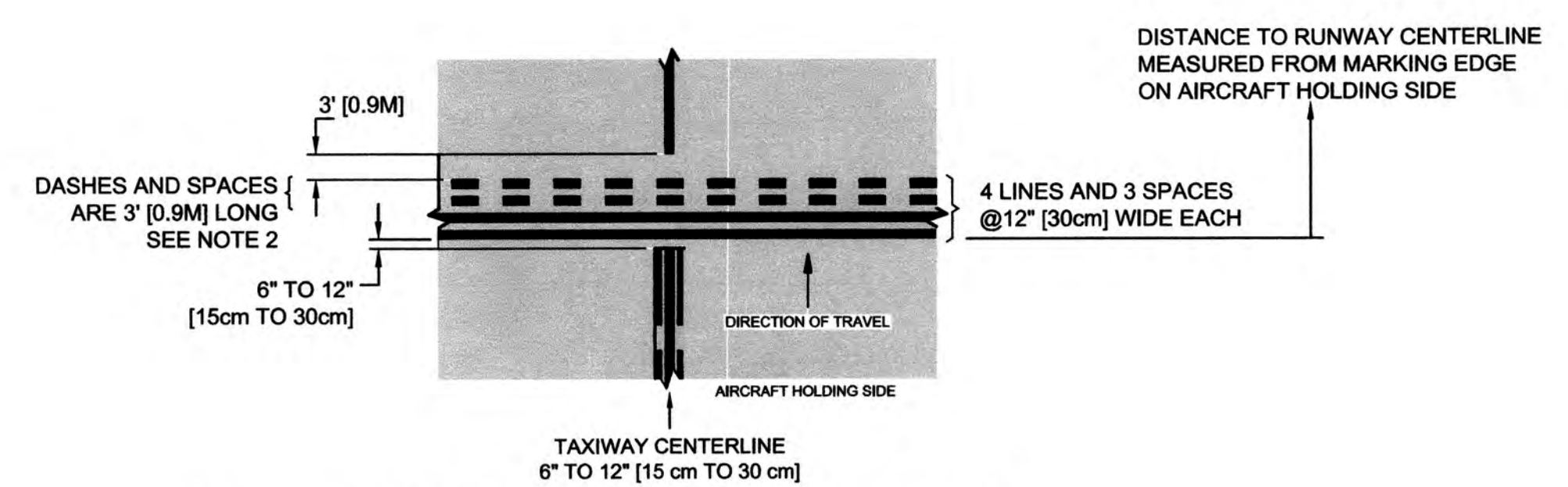


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| AIP NO. | STATE PROJECT NO. |  | SHEET NO. |
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THIS PROJECT



SEMI-FLUSH RETROREFLECTIVE TAXIWAY & MARKERS @ 50' SPACING SEE AC 150/5340-30H FOR CONFIGURATION DETAILS



**PATTERN A - RUNWAY HOLDING POSITION MARKING**  
NOT TO SCALE

NOTES:  
1. UNLESS OTHERWISE NOTED ALL LINES ARE YELLOW.

**LEGEND**  
○ SEMI-FLUSH RETROREFLECTIVE MARKERS, TYPE I

STEVEN JOHN MELVIN  
ENGINEER  
5-12-2017

**EJES**  
INCORPORATED  
Corporate Office: 12655 North Central Expressway, Suite 500 Dallas, Texas 75243  
Shreveport Office: 201 Wilkerson Street Shreveport, La. 71104  
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| PAVEMENT MARKING PLAN                           |                                                                                             |                   |                   |                 |
|-------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------|-------------------|-----------------|
| HATTIESBURG TAXIWAY<br>HATTIESBURG, MISSISSIPPI |                                                                                             |                   |                   |                 |
| <b>ARE</b><br>AIR REUNION<br>CONSULTANTS        | <b>DESIGN &amp; MANAGEMENT PROFESSIONALS</b><br>SHREVEPORT, LOUISIANA<br>HAMMOND, LOUISIANA |                   |                   |                 |
|                                                 | DRAWN BY<br>JOE                                                                             | CHECKED BY<br>SUM | JOB NO.<br>16-607 | SCALE<br>1"=50' |
|                                                 |                                                                                             |                   |                   | SHEET<br>08     |



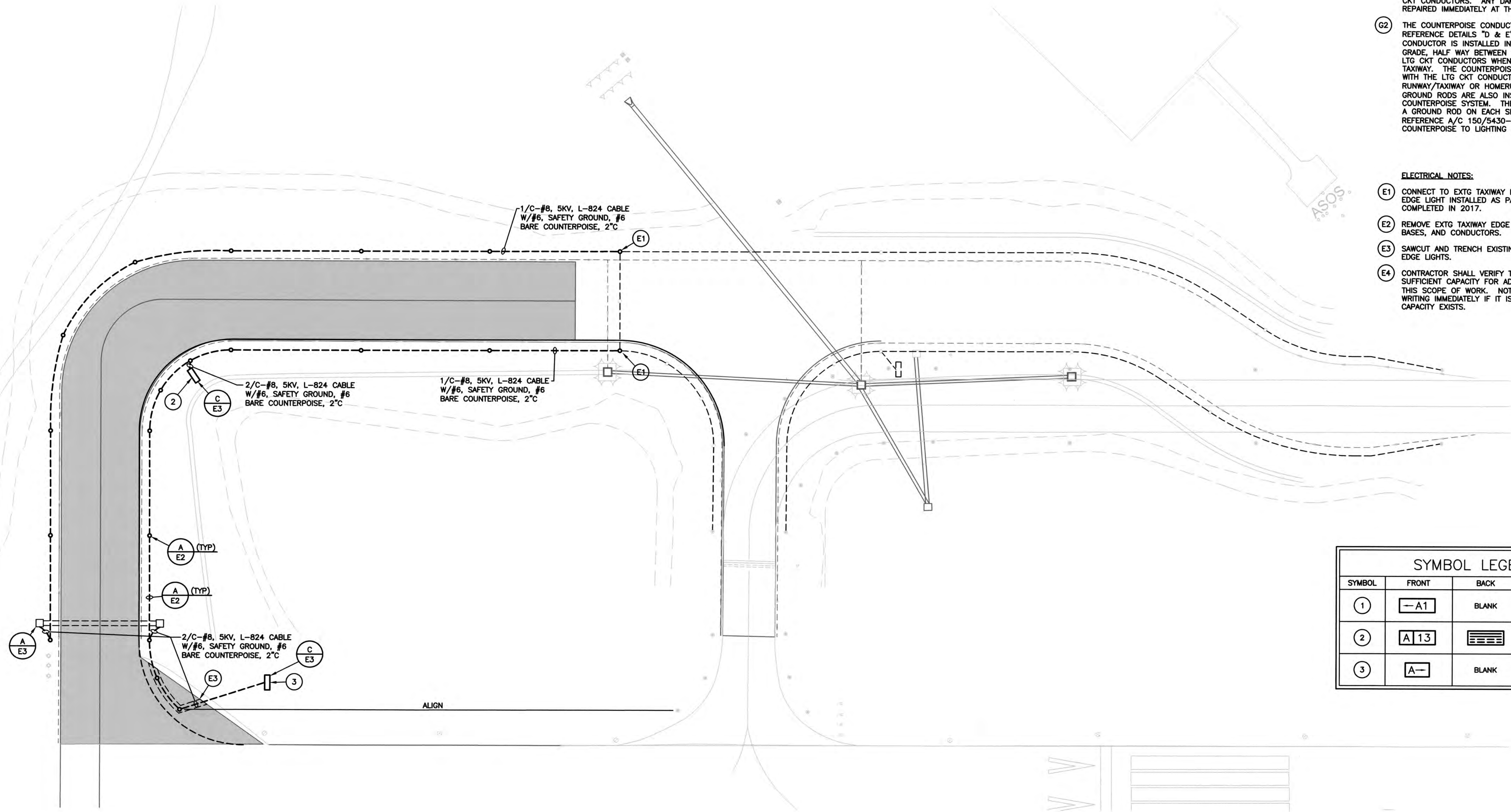
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|         | 16-607            |  |           |

GENERAL NOTES:

- (G1) CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL UNDERGROUND UTILITIES/IN UNDERGROUND AIRFIELD LTG CKT CONDUCTORS, ETC. PRIOR TO EXCAVATION OR TRENCHING. HAND EXCAVATE NEAR AND AROUND EXTG U/G AIRFIELD LTG CKT CONDUCTORS. ANY DAMAGED U/G UTILITIES SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE.
- (G2) THE COUNTERPOISE CONDUCTOR IS NOT SHOWN FOR CLARITY. REFERENCE DETAILS "D" & "E" ON SHEET E2. THE BARE #6AWG CONDUCTOR IS INSTALLED IN ITS OWN TRENCH 8" BELOW GRADE, HALF WAY BETWEEN THE RUNWAY/ TAXIWAY AND THE LTG CKT CONDUCTORS WHEN RUN ADJACENT TO A RUNWAY OR TAXIWAY. THE COUNTERPOISE IS RUN IN THE SAME TRENCH WITH THE LTG CKT CONDUCTORS WHEN RUN UNDER A RUNWAY/TAXIWAY OR HOMERUN TO AIRFIELD LTG VAULT. GROUND RODS ARE ALSO INSTALLED 500' (FT) APART ON THE COUNTERPOISE SYSTEM. THE COUNTERPOISE TERMINATES WITH A GROUND ROD ON EACH SIDE OF A DUCT CROSSING. REFERENCE A/C 150/5430-30. DO NOT CONNECT COUNTERPOISE TO LIGHTING FIXTURE BASE CANS.

ELECTRICAL NOTES:

- (E1) CONNECT TO EXTG TAXIWAY LIGHTING CIRCUIT AT EXTG TAXIWAY EDGE LIGHT INSTALLED AS PART OF THE SCOPE OF WORK COMPLETED IN 2017.
- (E2) REMOVE EXTG TAXIWAY EDGE LIGHT AND ASSOCIATED CANS, BASES, AND CONDUCTORS.
- (E3) SAWCUT AND TRENCH EXISTING PAVEMENT TO INSTALL TAXIWAY EDGE LIGHTS.
- (E4) CONTRACTOR SHALL VERIFY THAT EXISTING CIRCUIT HAS SUFFICIENT CAPACITY FOR ADDITIONAL LIGHTS ADDED UNDER THIS SCOPE OF WORK. NOTIFY ARCHITECT/ENGINEER IN WRITING IMMEDIATELY IF IT IS DISCOVERED THAT INSUFFICIENT CAPACITY EXISTS.



| SYMBOL LEGEND |       |       |                                                              |
|---------------|-------|-------|--------------------------------------------------------------|
| SYMBOL        | FRONT | BACK  | NOTES                                                        |
| ①             | A1    | BLANK | SKIN PANEL COLOR SHALL BE AS DIRECTED IN FAA AC/150/5340-18F |
| ②             | A13   |       | SKIN PANEL COLOR SHALL BE AS DIRECTED IN FAA AC/150/5340-18F |
| ③             | A-    | BLANK | SKIN PANEL COLOR SHALL BE AS DIRECTED IN FAA AC/150/5340-18F |

 SITE PLAN - LIGHTING

SCALE: 1"=50'-0"



**P+A** 9441 STEVENS ROAD, SUITE 200  
SHREVEPORT, LA 71106  
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fax 318 222 6564  
purtle@purtle.net • PA-17138  
PURTLE + ASSOCIATES  
CONSULTING ENGINEERS  
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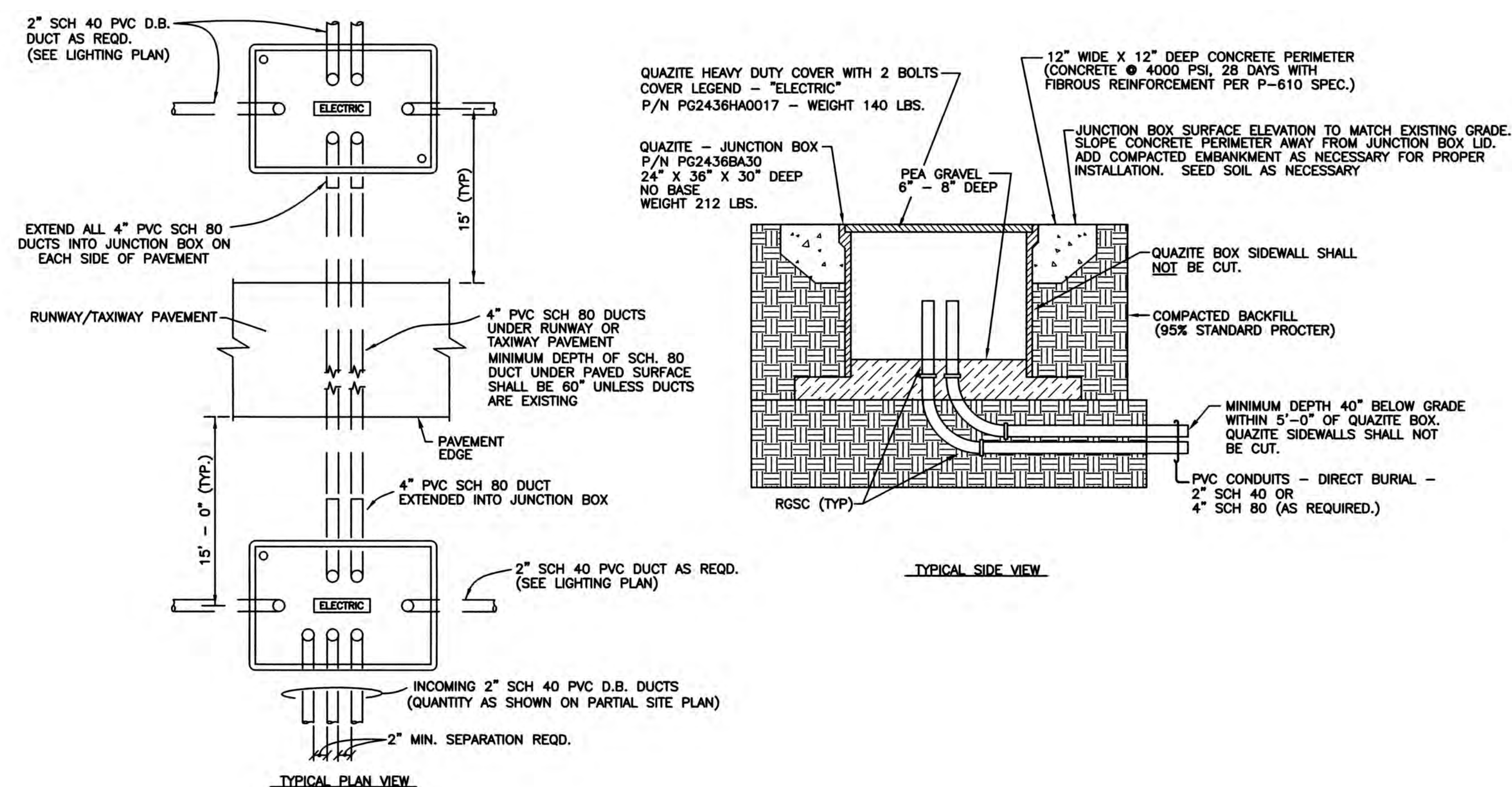
| LIGHTING PLAN                                                                         |                    |                                             |                 |                |          |
|---------------------------------------------------------------------------------------|--------------------|---------------------------------------------|-----------------|----------------|----------|
| TAXIWAY LIGHTING MODIFICATIONS AND ADDITIONS<br>HATTIESBURG, MISSISSIPPI              |                    |                                             |                 |                |          |
|  |                    | DESIGN & MANAGEMENT<br>PROFESSIONALS        |                 |                |          |
| AIR REUNION<br>CONSULTANTS                                                            |                    | SHREVEPORT, LOUISIANA<br>HAMMOND, LOUISIANA |                 |                |          |
| DRAWN BY<br>J.D.                                                                      | CHECKED BY<br>T.S. | JOB NO.<br>16-607                           | SCALE<br>1"=50' | DATE<br>5/1/17 | SHEET 9A |







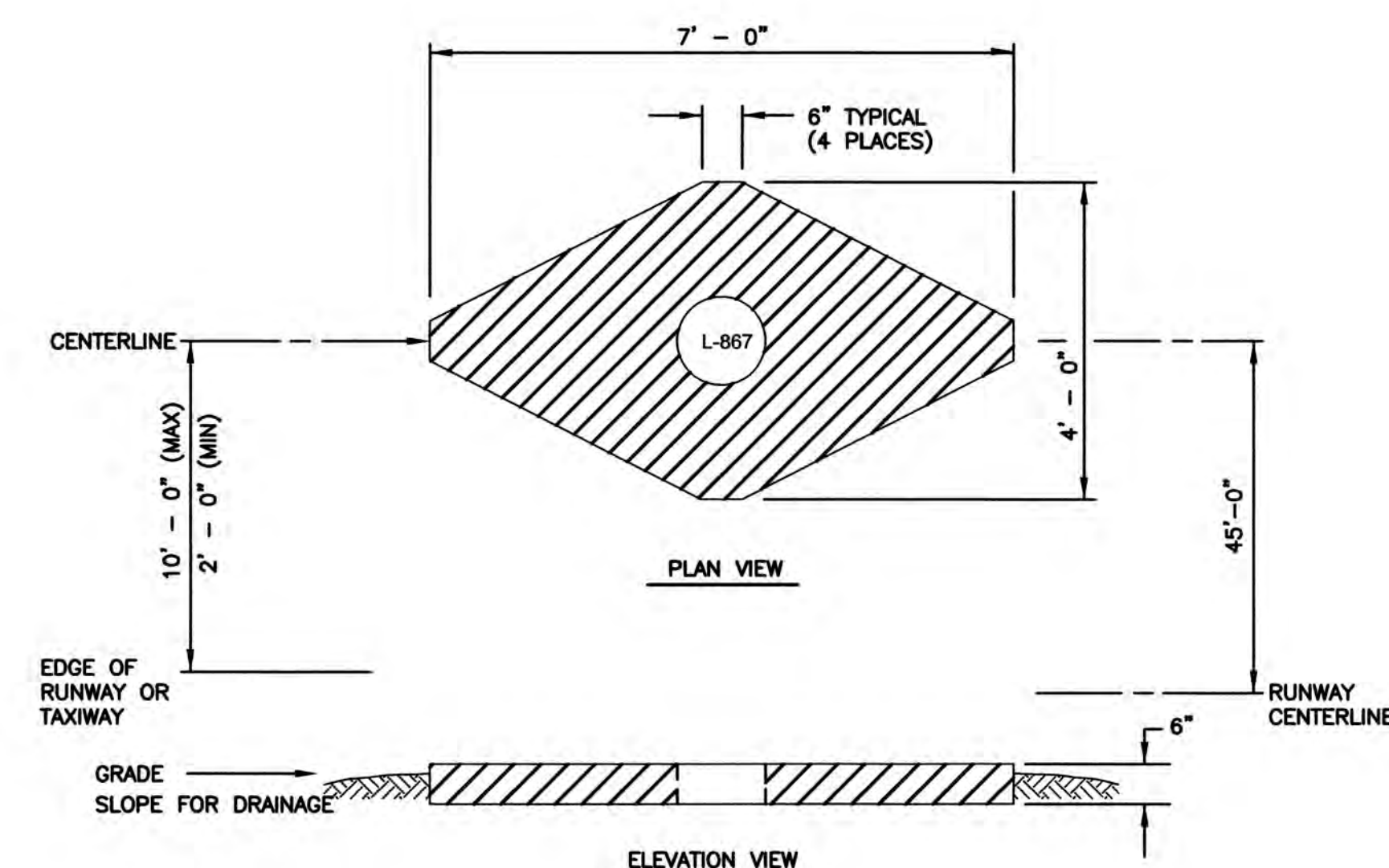
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|         | 16-607               |  |              |  |



**DETAIL - UNDERGROUND DUCT J-BOX (TYP)**

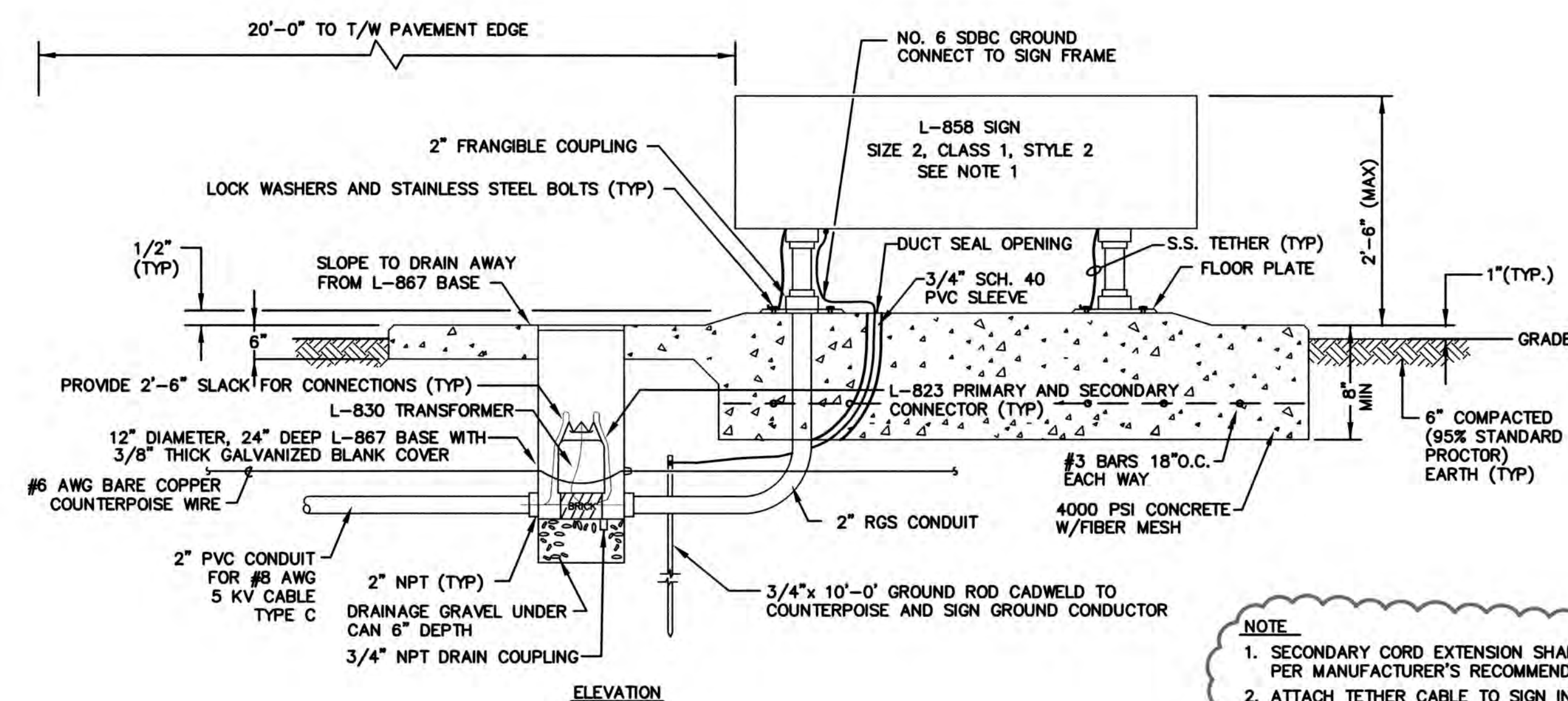
NOTES-

- 1.) WHERE DUCTS ARE UNDER PAVEMENT, COUNTERPOISE WIRE INSTALLED IN THESE DUCTS SHALL BE 5 KV #8 AWG, INSULATED WIRE (GREEN IN COLOR). COUNTERPOISE SHALL BE CADDLED TO GROUND ROD AT JUNCTION BOX AT EACH SIDE OF PAVEMENT.
- 2.) CONDUIT AND CABLES FOR ILLUSTRATION PURPOSES. FOR NUMBER AND SIZES SEE LIGHTING LAYOUT PLAN.
- 3.) 600V CABLE MUST BE INSTALLED IN SEPARATE CONDUIT FROM SKV CABLE AND BARRIER MUST BE PROVIDED IN BOX TO SEPARATE 600V AND SKV CABLES.
- 4.) TAG AND LABEL ALL CABLES IN BOX PER LA DOTO REQUIREMENTS.

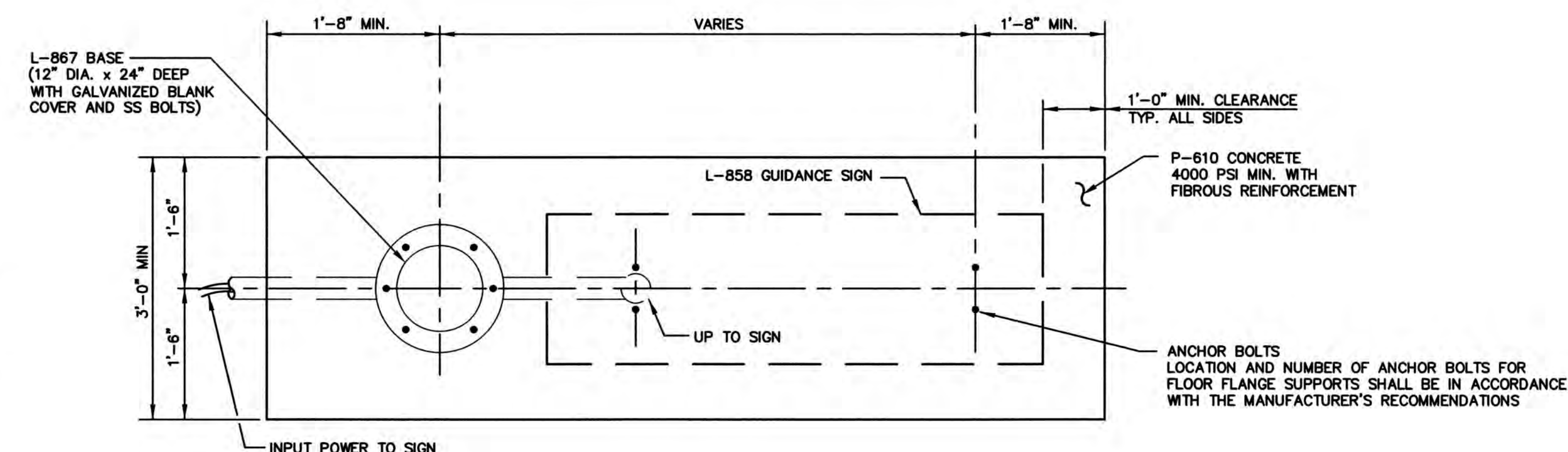


**(B) DETAIL - RUNWAY/TAXIWAY LIGHT MAINTENANCE PAD**

NO SCALE



DETAIL - SIGN L-858 (TYPICAL)



### FOUNDATION PLAN

NO SCALE



**P+A**  
PURTLÉ + ASSOCIATES  
CONSULTING ENGINEERS

9441 STEVENS ROAD, SUITE 200  
SHREVEPORT, LA 71106  
318 425 4500  
fax 318 222 8564  
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| NO.                                                                                   | REVISION       | BY      |

## ELECTRICAL DETAILS

|                                                                                                        |
|--------------------------------------------------------------------------------------------------------|
| <p align="center"><b>TAXIWAY LIGHTING MODIFICATIONS AND ADDITIONS<br/>HATTIESBURG, MISSISSIPPI</b></p> |
|--------------------------------------------------------------------------------------------------------|



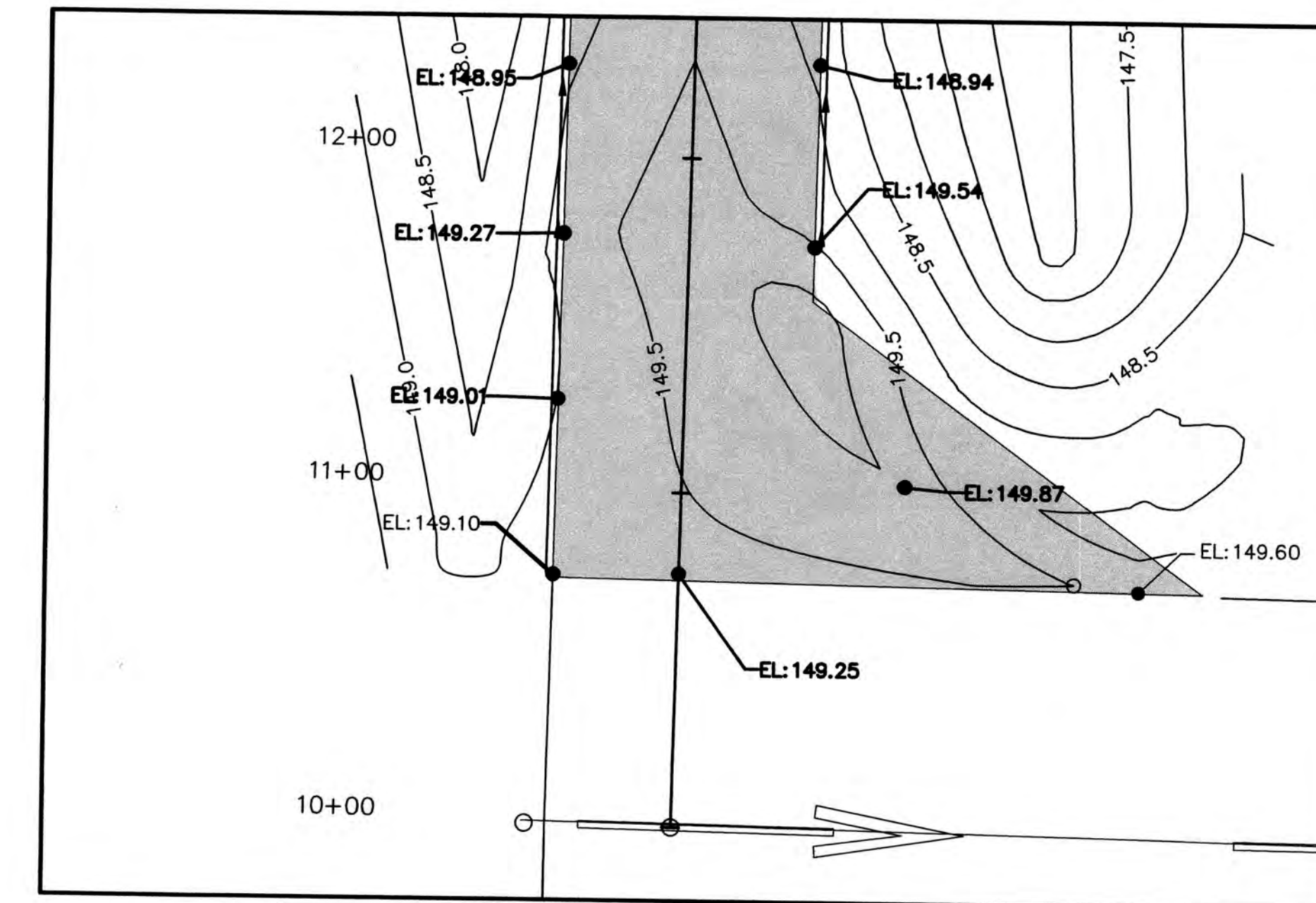
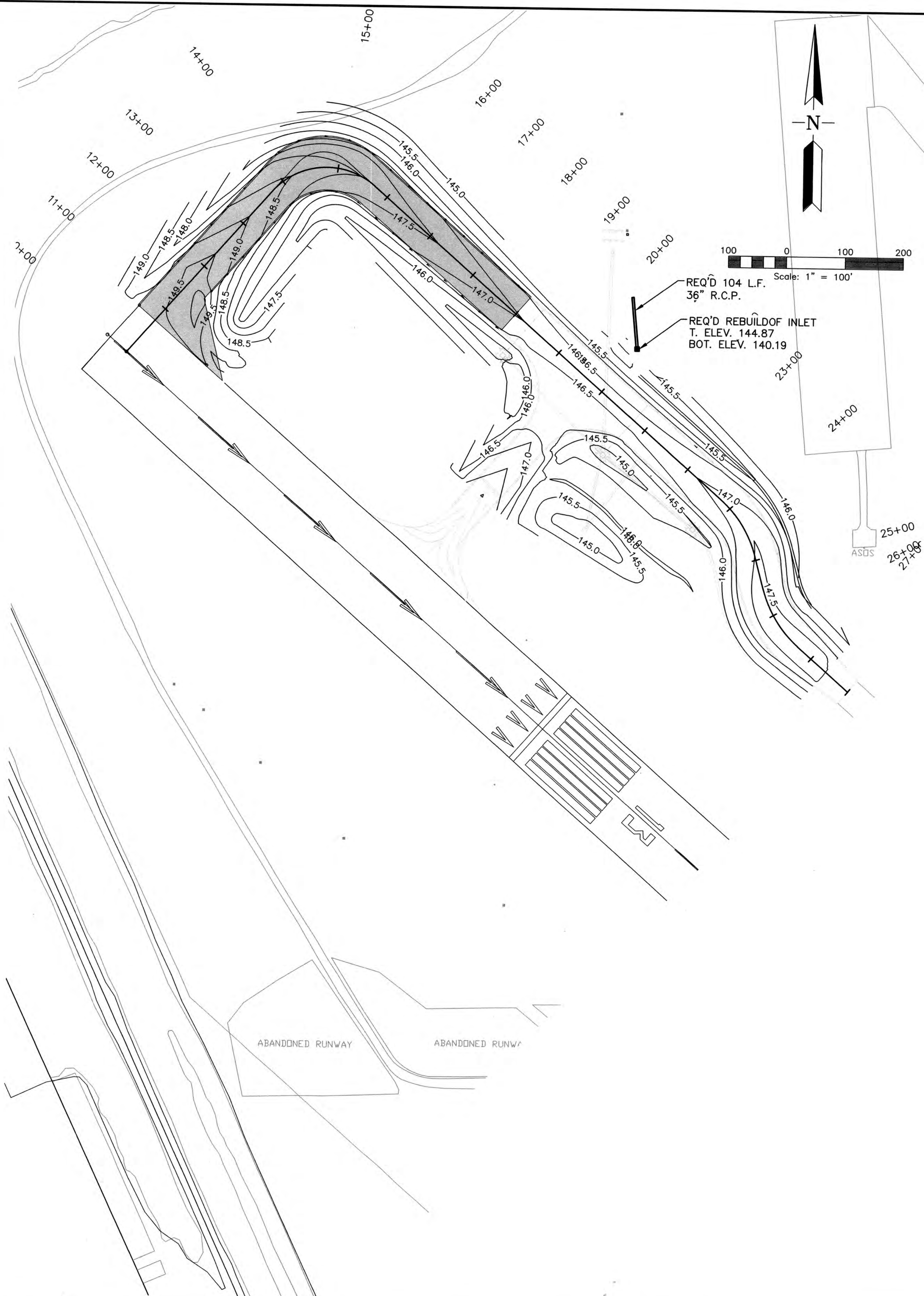
**DESIGN & MANAGEMENT  
PROFESSIONALS**

SHREVEPORT, LOUISIANA  
HAMMOND, LOUISIANA

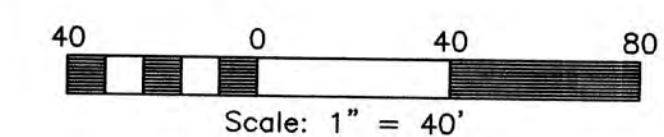
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| DRAWN BY<br>J.D. | CHECKED BY<br>T.S. | JOB NO.<br>16-607 | SCALE<br><b>NONE</b> | DATE<br>5/1/17 | SHEET 9C |
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INTERSECTION GRADING  
TAXIWAY & EXISTING RUNWAY

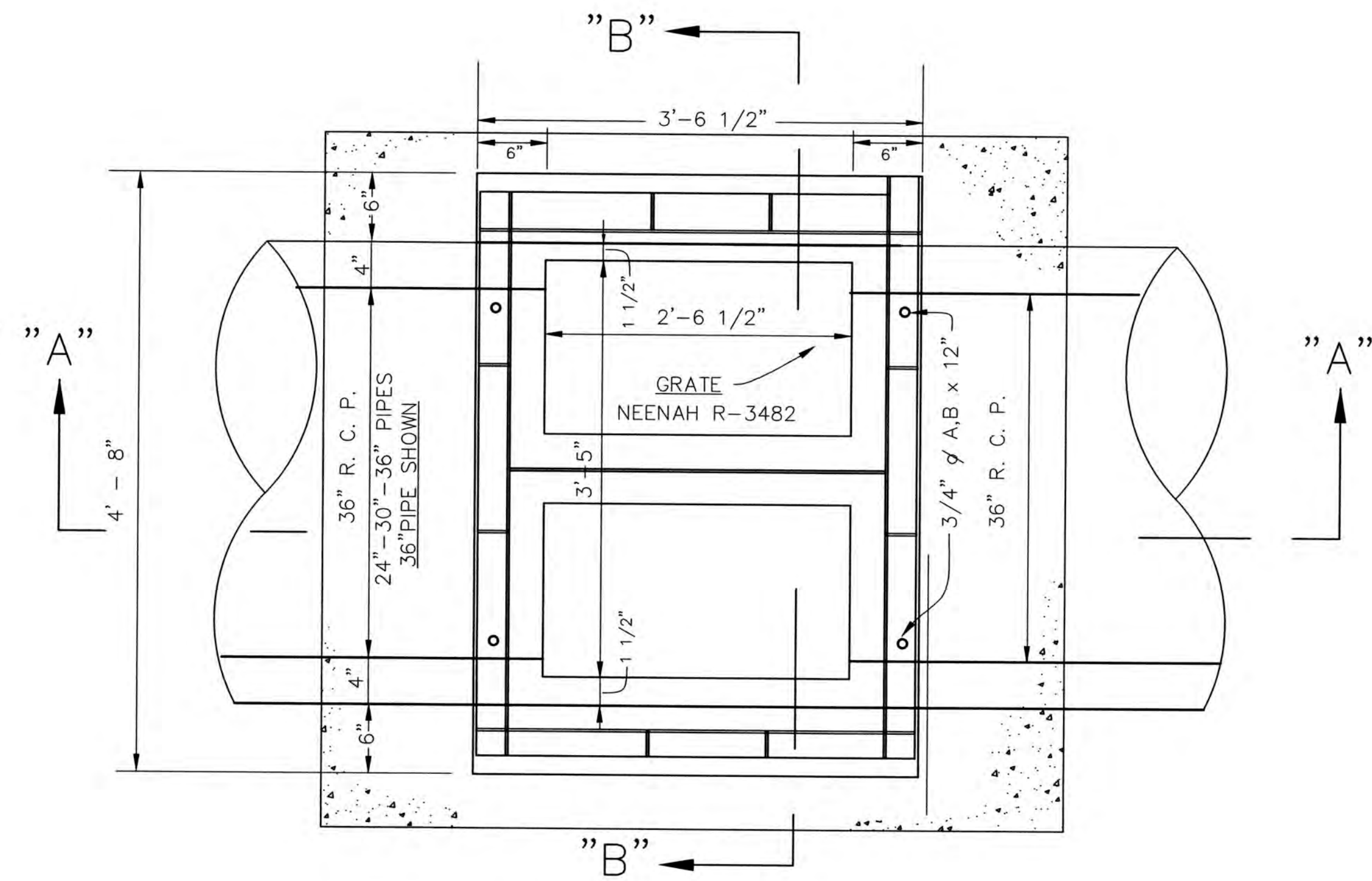


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| DRAINAGE & INTERSECTION GRADING                                                                                         |                    |                                                                                             |                                                  |
| TAXIWAY A EXTENSION 2<br>HATTIESBURG, MISSISSIPPI                                                                       |                    |                                                                                             |                                                  |
| <br><b>AIR REUNION CONSULTANTS</b> |                    | <b>DESIGN &amp; MANAGEMENT PROFESSIONALS</b><br>SHREVEPORT, LOUISIANA<br>HAMMOND, LOUISIANA |                                                  |
| DRAWN BY<br>G.H.                                                                                                        | CHECKED BY<br>J.R. | JOB NO.<br>18-0306                                                                          | SCALE<br>1"=100'<br>DATE<br>04/18<br>SHEET<br>10 |

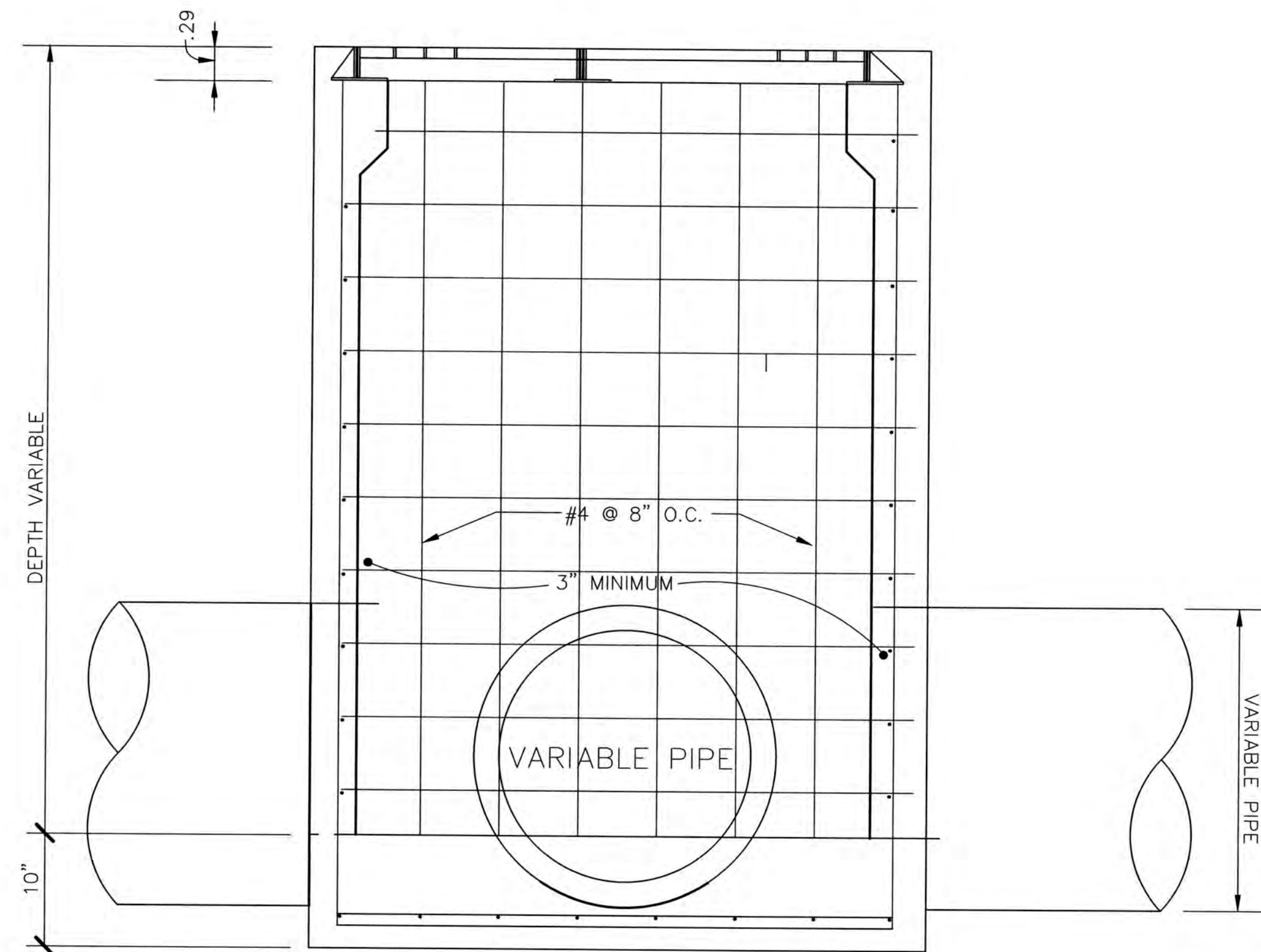


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PLAN INLET STRUCTURE  
SCALE: NTS

- ALL CORNERS TO BE CHAMFERED 3/4".
- RUBBED FINISH REQUIRED ON EXPOSED SURFACES.
- R.C. CATCH BASIN SHALL CONFORM TO A.A.S.H.O. DESIGNATION M-85 CLASS A CONCRETE (3800 P.S.I. - 28 DAYS) PORTLAND CEMENT.
- C.I. FRAME AND LID SHALL BE BITUMINOUS COATED
- REINFORCE BARS SHALL CONFORM TO A.S.T.M. DESIGNATION A-615 (GRADE 40).
- STEEL MESH TO CONFORM TO A.S.T.M. A-185.
- GRATES TO BE CENTERED.
- BACKFILL TO BE COMPACTED TO 95% DENSITY.



SECTION B-B  
SCALE: NTS



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| TYPICAL SECTIONS & DETAILS                                                                                           |      |                                                                                             |            |         |          |
|----------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------|------------|---------|----------|
| TAXIWAY A EXTENSION PART 2<br>HATTIESBURG, MISSISSIPPI                                                               |      |                                                                                             |            |         |          |
|  <b>AIR REUNION CONSULTANTS</b> |      | <b>DESIGN &amp; MANAGEMENT PROFESSIONALS</b><br>SHREVEPORT, LOUISIANA<br>HAMMOND, LOUISIANA |            |         |          |
|                                                                                                                      |      | DRAWN BY                                                                                    | CHECKED BY | JOB NO. | SCALE    |
| G.H.                                                                                                                 | J.R. | 18-0306                                                                                     | NTS        | 04/18   | SHEET 11 |



STANDARD FOR SILT FENCE

DEFINITION

TEMPORARY BARRIER FENCE MADE OF BURLAP OR POLYPROPYLENE MATERIAL WHICH IS WATER PERMEABLE BUT WILL TRAP WATER-BORNE SEDIMENT.

PURPOSE

TO INTERCEPT AND DETAIN WATER-BORNE SEDIMENT FROM UNPROTECTED AREA OF LIMITED EXTENT.

CONDITIONS WHERE PRACTICE APPLIES

SILT FENCE IS USED DURING THE PERIOD OF CONSTRUCTION NEAR THE PERIMETER OF A DISTURBED AREA TO INTERCEPT SEDIMENT WHILE ALLOWING WATER TO PERCOLATE THROUGH. THIS FENCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. SILT FENCE SHOULD NOT BE USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR OTHER DRAINAGE WAY.

DESIGN CRITERIA

SILT FENCE SHALL NOT BE CONSTRUCTED OUTSIDE THE PROPERTY LINES WITHOUT OBTAINING EASEMENTS FROM THE AFFECTED PROPERTY OWNERS. A DESIGN IS NOT REQUIRED FOR THE INSTALLATION OF SILT FENCE, HOWEVER THE FOLLOWING CRITERIA SHALL BE OBSERVED:

- DRAINAGE AREA - LESS THAN 2 ACRES
- HEIGHT - 36 INCH MINIMUM HEIGHT MEASURED FROM THE EXISTING OR GRADED GROUND.
- MATERIAL - BURLAP WEIGHING APPROXIMATELY 7-1/2 OUNCES PER SQUARE YARD OR APPROVED JUTE FABRIC OR GEOTEXTILE FABRIC.
- SUPPORT - STEEL OR WOOD FENCE POSTS SPACED A MAXIMUM OF 8 FEET APART. POST SHALL HAVE A MINIMUM LENGTH OF 5 FEET AND BE SET AT LEAST 18 INCHES DEEP. WOVEN LIVESTOCK WIRE TO SUPPORT THE MATERIAL SHALL BE AT LEAST 36 INCH HIGH WITH A MAXIMUM MESH OPENING OF 6 INCHES AND FABRICATED FROM 14 GAGE WIRE OR LARGER.

OUTLET

SILT FENCE SHALL BE PLACED AND CONSTRUCTED IN SUCH A MANNER THAT RUNOFF FROM A DISTURBED OR EXPOSED UPLAND AREA SHALL BE INTERCEPTED, SEDIMENT TRAPPED AND THE SURFACE RUNOFF ALLOWED TO PERCOLATES THROUGH THE STRUCTURE.

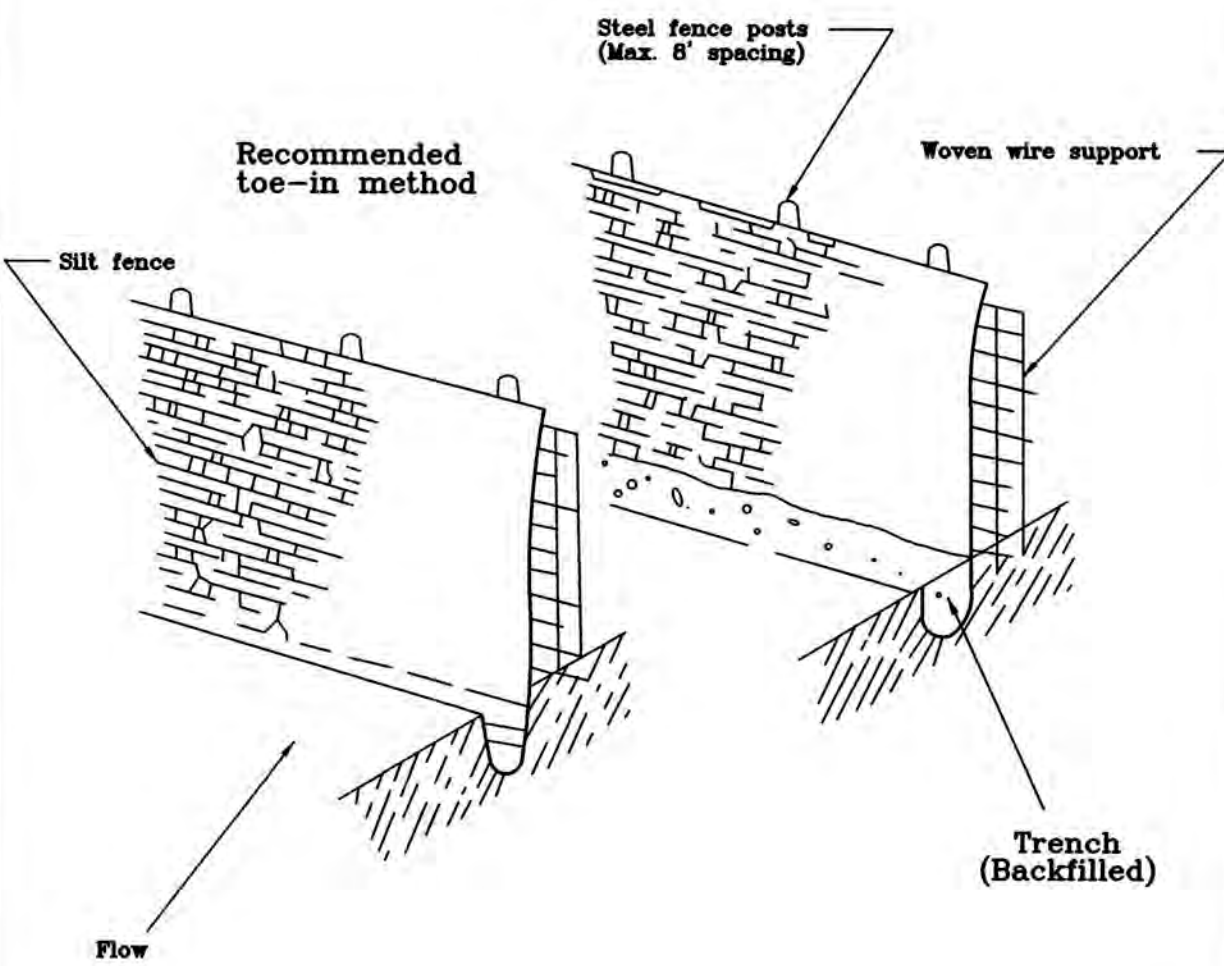
SILT FENCE SHALL BE PLACED IN SUCH A MANNER THAT SURFACE RUNOFF WHICH PERCOLATES THROUGH WILL FLOW ONTO AN UNDISTURBED STABILIZED AREA OR STABILIZED OUTLET. IF PLACED IN SERIES, THE FURTHERST DOWNSTREAM FENCE WILL FLOW ONTO AN UNDISTURBED STABILIZED AREA OR STABILIZED OUTLET.

GENERAL NOTES

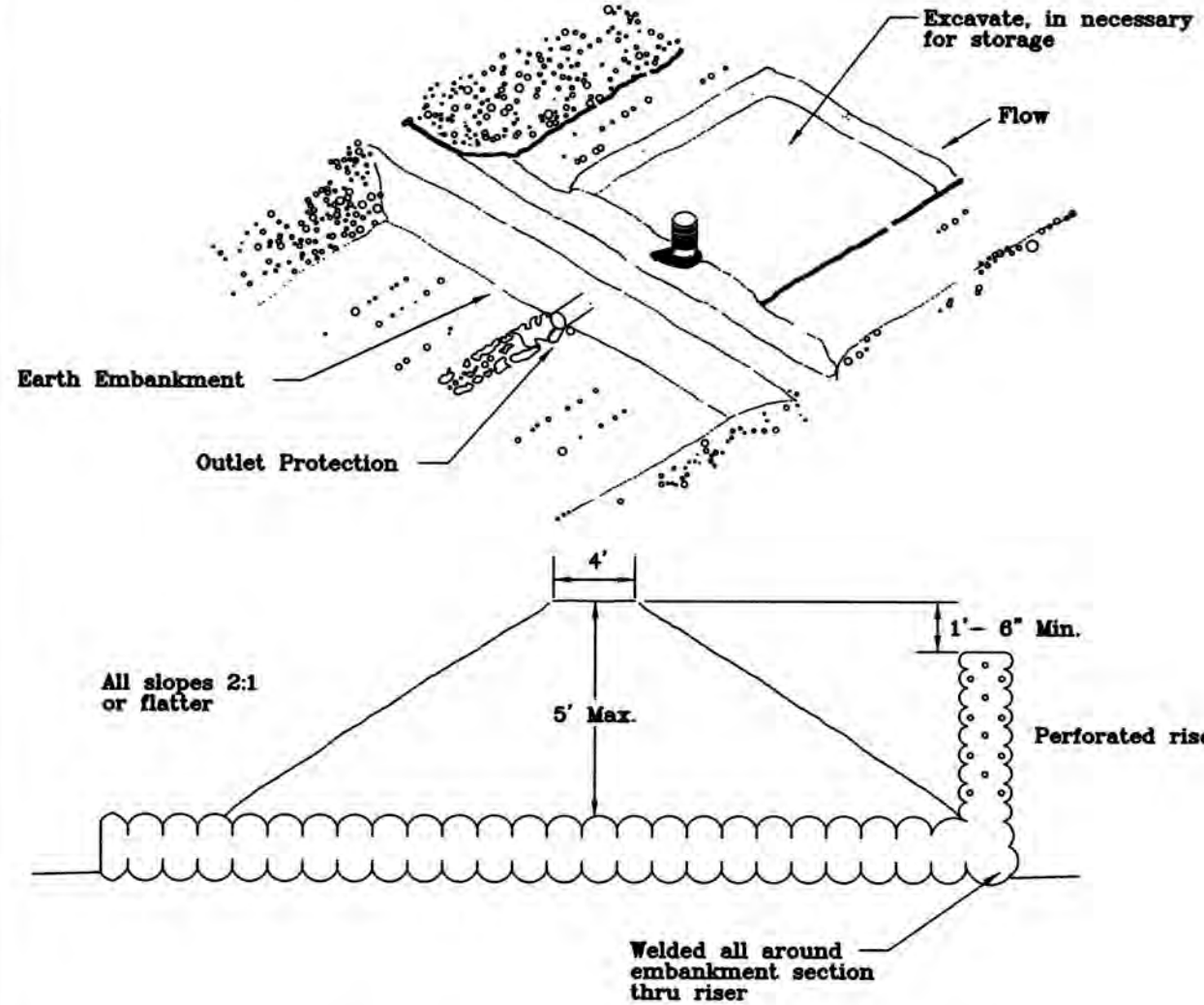
- STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH SHOULD BE A MINIMUM OF 6 INCHES DEEP AND 3-4 FEET WIDE TO ALLOW FOR THE SILT FENCE TO BE LAID IN THE GROUND AND BACKFILLED.
- SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POSTS.
- INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFULNESS, SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. \*
- SEDIMENT TRAPPED BY THIS PRACTICE SHALL BE DISPOSED OF IN AN APPROVED SITE IN A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES AND DISPOSED OF IN AN APPROVED SPOIL SITE OR AS IN NO. 7 ABOVE.

\* TO BE REMOVED BY CONTRACTOR WHEN PERMANENT EROSION MEASUREDS ARE DEEMED TO BE EFFECTIVE.

SILT FENCE



PIPE OUTLET SEDIMENT TRAP



STANDARDS FOR SEDIMENT TRAP

DEFINITIONS

A SMALL TEMPORARY PONDING AREA FORMED BY CONSTRUCTING AN EARTHEN EMBANKMENT TO INTERCEPT SEDIMENT-LADEN RUNOFF AND TO TRAP AND RETAIN SEDIMENT.

PURPOSE

TO DETAIN SEDIMENT-LADEN RUNOFF FROM SMALL DISTURBED AREAS LONG ENOUGH TO ALLOW THE MAJORITY OF THE SEDIMENT TO SETTLE OUT.

CONDITIONS WHERE PRACTICE APPLIES

INSTALLED AT POINTS OF DISCHARGE FROM DISTURBED AREA FOR A MAXIMUM PERIOD OF 10 MONTHS.

DESIGN CRITERIA

IF ANY OF THE DESIGN CRITERIA PRESENTED HERE CANNOT BE MET, SEE STANDARDS FOR SEDIMENT BASIN.

- DRAINAGE AREA - SHALL BE LESS THAN 5 ACRES.
- LAYOUT - SHALL BE LOCATED TO MAXIMIZE STORAGE BENEFIT FROM TERRAIN, FOR EASE OF CLEANOUT, AND TO MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES.
- SIZE - THE VOLUME OF THE TRAP MEASURED BELOW THE CREST OF THE OUTLET SHALL BE AT LEAST 1000 CUBIC FEET PER ACRE OF DRAINAGE AREA.
- CLEANOUT - SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL CAPACITY WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE DESIGN VOLUME OR 1 FOOT, WHICHEVER IS LESS.
- EMBANKMENT - THE EMBANKMENT SHALL HAVE A 3 FOOT TOP WIDTH. SIDE SLOPES OF 2:1 OR FLATTER, AND SHALL NOT EXCEED 5 FEET IN HEIGHT AS MEASURED AT THE LOW POINT OF THE ORIGINAL GROUND LINE. FILL MATERIAL SHALL BE FREE OF WOODY VEGETATION, LARGE STONES, AND OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED IN EIGHT-INCH LAYERS BY TRAVERSING WITH CONSTRUCTION EQUIPMENT.
- EXCAVATION - ANY EXCAVATED PORTION OF SEDIMENT TRAP SHALL HAVE 2:1 OR FLATTER SLOPES. CARE SHALL BE TAKEN TO MINIMIZE EROSION AND WATER POLLUTION DURING EXCAVATION OPERATIONS.

OUTLET

- THE OUTLET SHALL BE A CORRUGATED METAL PIPE WITH A PERFORATED CORRUGATED METAL RISER. THE RISER DIAMETER SHALL BE ONE SIZE LARGER THAN THE PIPE. THE RISER SHALL BE WRAPPED WITH THREE LAYERS OF 125 MILS THICK NON-WOVEN U-V RESISTANT FILTER CLOTH. THE PORTION OF THE RISER ABOVE THE PIPE CONNECTIONS SHALL BE PERFORATED WITH ONE 1/2-INCH DIAMETER HOLE PER 40 SQUARE INCHES OF SURFACE AREA. THE RISER CREST SHALL BE 1-1/2 FEET BELOW THE TOP OF THE EMBANKMENT.
- UNLESS OTHERWISE SPECIFIED, PIPE SIZES SHALL BE SELECTED FROM THE FOLLOWING TABLE:

| PIPE DIAMETER<br>D. (INCHES) | MAXIMUM<br>DRAINAGE AREA (ACRES) |
|------------------------------|----------------------------------|
| 12                           | 0.75                             |
| 15                           | 1.25                             |
| 18                           | 2.0                              |
| 21                           | 3.0                              |
| 24                           | 5.0                              |

GENERAL NOTES

- AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
- THE FILL MATERIAL FOR EMBANKMENT SHALL BE FREE OF ROOTS OF OTHER WOODY VEGETATION, AS WELL AS STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP OR 1 FOOT, WHICHEVER IS LESS. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED BY THE CONTRACTOR.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
- THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
- ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.

STANDARDS FOR DIKES

DEFINITION

A DIKE IS A TEMPORARY RIDGE OF COMPACTED SOIL. A DIVERSION DIKE IS PLACED IMMEDIATELY ABOVE CUT OR FILL SLOPES. AN INTERCEPTOR IS LOCATED ACROSS RIGHT-OF-WAY OR DISTURBED AREAS. A PERIMETER DIKE IS PLACED ALONG THE PERIMETER OF THE DISTURBED AREA OR SITE.

PURPOSE

A DIVERSION DIKE INTERCEPTS STORM RUNOFF FROM SMALL UPLAND AREAS AND DIRECTS IT FROM THE EXPOSED SLOPES TO AN ACCEPTABLE OUTLET. AN INTERCEPTOR DIKE SHORTENS THE LENGTH OF EXPOSED SLOPES BY INTERCEPTING STORM RUNOFF AND DIVERTING IT TO AN ACCEPTABLE OUTLET. A PERIMETER DIKE PREVENTS OFFSITE STORM RUNOFF FROM ENTERING THE DISTURBED AREA OR PREVENTS SEDIMENT-LADEN WATER FROM LEAVING THE DISTURBED AREA.

CONDITIONS WHERE PRACTICE APPLIES

DIKES ARE CONSTRUCTED ADJACENT TO OR ACROSS DISTURBED AREAS TO PREVENT EXCESSIVE EROSION OR TO TRANSPORT SEDIMENT-LADEN WATER TO A SEDIMENT TRAPPING DEVICE. THE DIKES SHALL REMAIN IN PLACE UNTIL AREAS ARE PERMANENTLY STABILIZED.

DESIGN CRITERIA

DIKES SHALL NOT BE CONSTRUCTED OR DISCHARGED OUTSIDE THE PROPERTY LINES WITHOUT OBTAINING EASEMENTS FROM THE AFFECTED PROPERTY OWNERS. A DETAILED DESIGN IS NOT REQUIRED FOR DIKES; HOWEVER, THE FOLLOWING CRITERIA SHALL BE USED IN SELECTING SITES FOR PLACEMENT:

- DRAINAGE AREA: LESS THAN 5 ACRES (FOR LARGE AREAS, SEE STANDARDS FOR DIVERSION).
- TOP WIDTH: 2 FEET MINIMUM.
- HEIGHT: COMPACTED FILL SHALL BE 18 INCHES MINIMUM HEIGHT MEASURED FROM GROUND AT UPSLOPE TOE TO TOP OF THE DIKE.
- SIDE SLOPES: 2:1 OR FLATTER (FLAT ENOUGH TO ALLOW CONSTRUCTION TRAFFIC TO CROSS IF DESIRED).
- GRADE: DEPENDENT UPON TOPOGRAPHY, BUT MUST HAVE POSITIVE DRAINAGE. INTERCEPTOR DIKE SHOULD BE BETWEEN 0.4 PERCENT AND 1.0 PERCENT.
- STABILIZATION: WHERE SLOPE OF CHANNEL (FLOW AREA) IS:  
1%-5% STABILIZATION MAY BE REQUIRED  
DEPENDENT ON THE SITE CONDITIONS.  
OVER 5% SEE STANDARDS FOR DIVERSION.
- SPACING: INTERCEPTOR DIKES SHALL BE PLACED SUCH THAT THE MAXIMUM VERTICAL DISTANCE BETWEEN DIKES IS 10 FEET.

OUTLET

- RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL OUTLET DIRECTLY ONTO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER (SEE STANDARDS FOR LEVEL SPREADER) OR GRADE STABILIZATION STRUCTURE (SEE STANDARD FOR GRADE STABILIZATION STRUCTURE).
- RUNOFF FROM A DISTURBED OR EXPOSED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP (SEE STANDARDS FOR SEDIMENT TRAP) OR A SEDIMENT BASIN (SEE STANDARDS FOR SEDIMENT BASIN) OR TO AN AREA PROTECTED BY ANY OF THESE PRACTICES.
- STRUCTURE THAT WILL CONTROL THE RUNOFF FROM DIKES SHALL BE INSTALLED AND STABILIZED BEFORE DIKES ARE INSTALLED.

GENERAL NOTES

- ALL DIKES SHALL BE MACHINE COMPACTED.
- FIELD LOCATION MAY BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED BY THE CONTRACTOR.

STANDARD FOR LAND GRADING

DEFINITIONS

RESHAPING OF THE EXISTING TOPOGRAPHY IN ACCORDANCE WITH A PLAN AS DETERMINED BY ENGINEERING SURVEYS, DESIGN AND LAYOUT.

PURPOSE

LAND GRADING IS USED FOR ONE OR MORE OF THE FOLLOWING PURPOSES: PROVIDE MORE SUITABLE SITES FOR BUILDING, FACILITIES, AND OTHER LAND USES; IMPROVE SURFACE DRAINAGE AND CONTROL EROSION.

DESIGN CRITERIA

THE LAND GRADING PLAN AND INSTALLATION SHALL BE BASED UPON ADEQUATE SURVEYS AND INVESTIGATIONS. THE PROPOSED LAND USE AND GRADING PLAN SHOULD FIT AND UTILIZE EXISTING TOPOGRAPHY AND NATURAL SURROUNDINGS AND MAKE EXTREME GRADE MODIFICATIONS UNNECESSARY. THE PLAN IS TO SHOW THE LOCATION, SLOPE, CUT, FILL AND FINISH ELEVATION OF THE SURFACES TO BE GRADED AND THE AUXILIARY PRACTICES FOR SAFE DISPOSAL OF RUNOFF WATER, SLOPE STABILIZATION, EROSION CONTROL, AND DRAINAGE SUCH AS WATERWAYS, LINED CHANNELS, DIVERSIONS, GRADE STABILIZATION STRUCTURES, RETAINING WALLS AND SURFACE AND SUBSURFACE DRAINS.

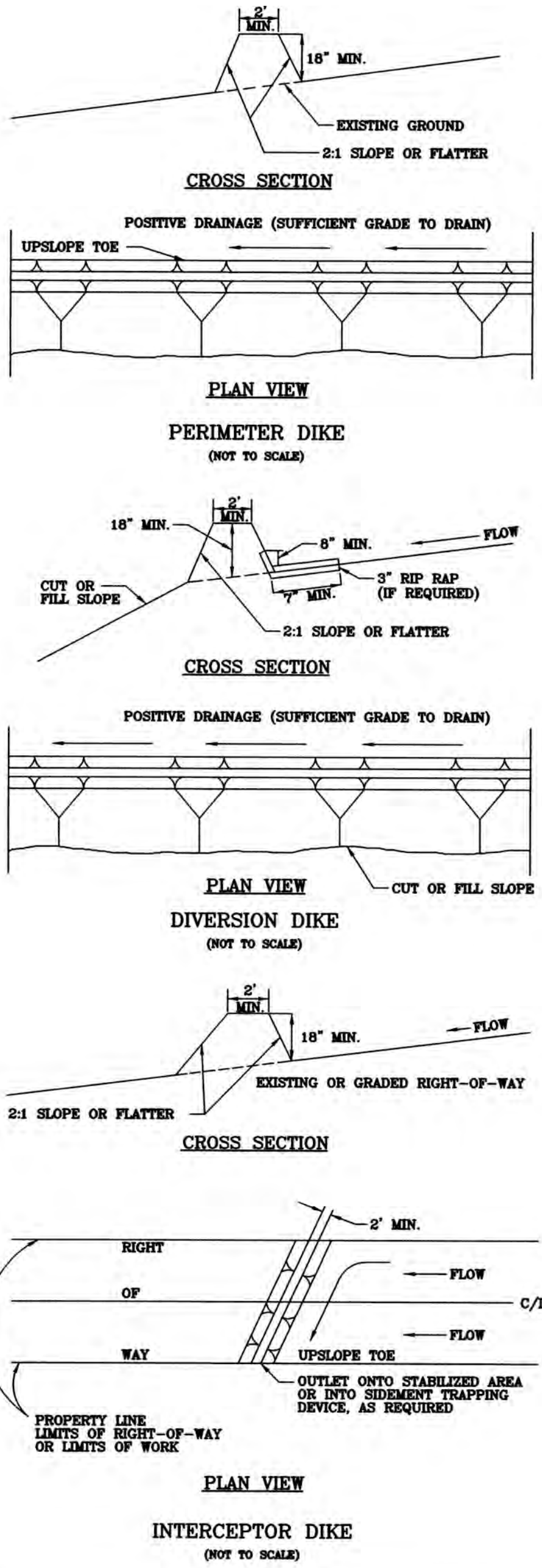
THE GRADING PLAN SHALL BE IN ACCORDANCE WITH THE FOLLOWING DESIGN CRITERIA:

- THE CUT FACE OF EARTH EXCAVATION WHICH IS TO BE VEGETATED SHALL NOT BE STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. CUT SLOPES OF MATERIALS NOT TO BE VEGETATED SHALL BE AT THE SAFE ANGLE OF REPOSE FOR THE MATERIALS ENCOUNTERED. UNVEGETATED CUT SLOPES SHALL BE PROTECTED BY MECHANICAL TREATMENT TO PROTECT THEM FROM EROSION.
- THE PERMANENT EXPOSED FACES OF FILLS SHALL BE NO STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL.
- PROVISIONS ARE TO BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE NATURAL WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
- SUBSURFACE DRAINAGE IS TO BE PROVIDED IN AREAS HAVING HIGH WATER TABLE OR SEEPAGE CONDITIONS THAT WOULD AFFECT SLOPE STABILITY, BUILDING FOUNDATIONS, OR CREATE UNDESIRABLE WETNESS.
- EXCAVATIONS SHALL NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTLING OR CRACKING.

- NO FILL IS TO BE PLACED WHERE IT WILL SLIDE OR WASH UPON THE PREMISES OF ANOTHER OR SO PLACED ADJACENT TO THE BANK OF A CHANNEL AS TO CREATE BANK FAILURE OR REDUCE THE NATURAL CAPACITY OF THE STREAM.
- FILLS ARE TO CONSIST OF MATERIAL FROM CUT AREAS, BORROW PITS, OR OTHER APPROVED SOURCES.

GENERAL NOTES

- TIMBER, LOGS BRUSH, RUBBISH, AND VEGETATIVE MATTER THAT WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OF FILL AREAS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE PLANS. AVOID UNNECESSARY REMOVAL OF TREES AND VEGETATION THAT COULD BE LEFT ENHANCE THE ATTRACTIVENESS OF THE DEVELOPMENT.
- TOP SOIL IS TO BE STRIPPED AND STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISH GRADING OF ALL EXPOSED AREAS REQUIRING TOPSOIL FOR THE ESTABLISHMENT OF VEGETATION.
- FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS AND STUMPS, IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
- CUT SLOPES WHICH ARE TO BE TOPSOILED WILL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.
- ALL FILLS INTENDED TO SUPPORT BUILDINGS, STRUCTURES, SEWERS AND CONDUITS SHOULD BE TESTED FOR STRENGTH AND THE FOUNDATIONS DESIGNED ACCORDINGLY. COMPACTION OF OTHER FILLS WILL BE AS REQUIRED TO REDUCE SLIPPING, EROSION, OR EXCESS SATURATION.
- MAXIMUM THICKNESS OF LAYERS OF FILLS ARE NOT TO EXCEED 8 INCHES.
- ALL AREAS ARE TO BE ROUGH GRADED TO WITHIN 0.2 FOOT OF THE PLANNED ELEVATION AFTER ALLOWANCE HAS BEEN MADE FOR THICKNESS OF TOPSOIL, PAVING OR OTHER INSTALLATIONS.
- ALL DISTURBED AREAS SHALL BE LEFT IN A WELL DRAINED, NEAT AND FINISHED APPEARANCE.



EROSION CONTROL MEASURES

TAXIWAY A EXTENSION PART 2  
HATTIESBURG, MISSISSIPPI

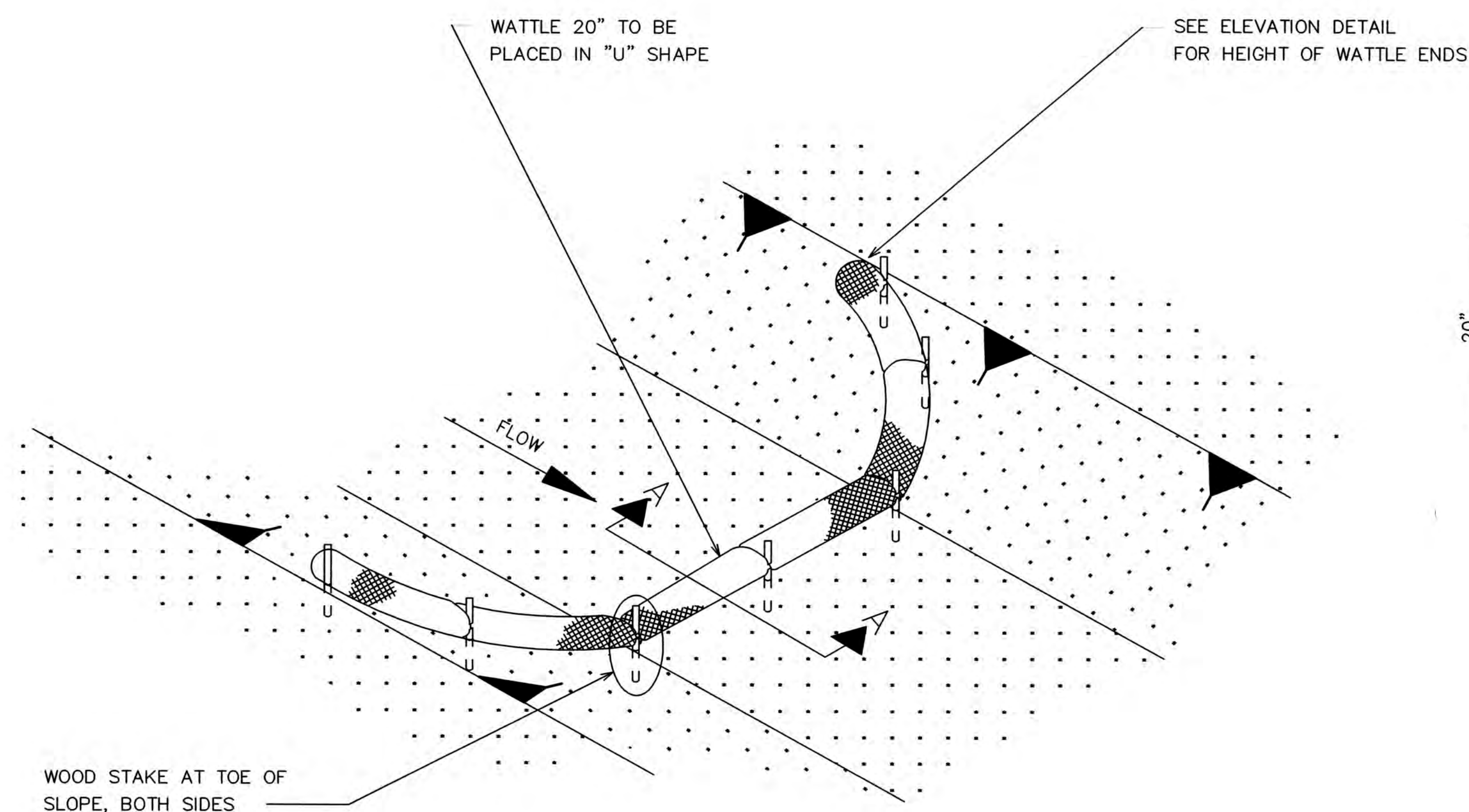
**ARE**  
AIR REUNION  
CONSULTANTS

DESIGN & MANAGEMENT  
PROFESSIONALS

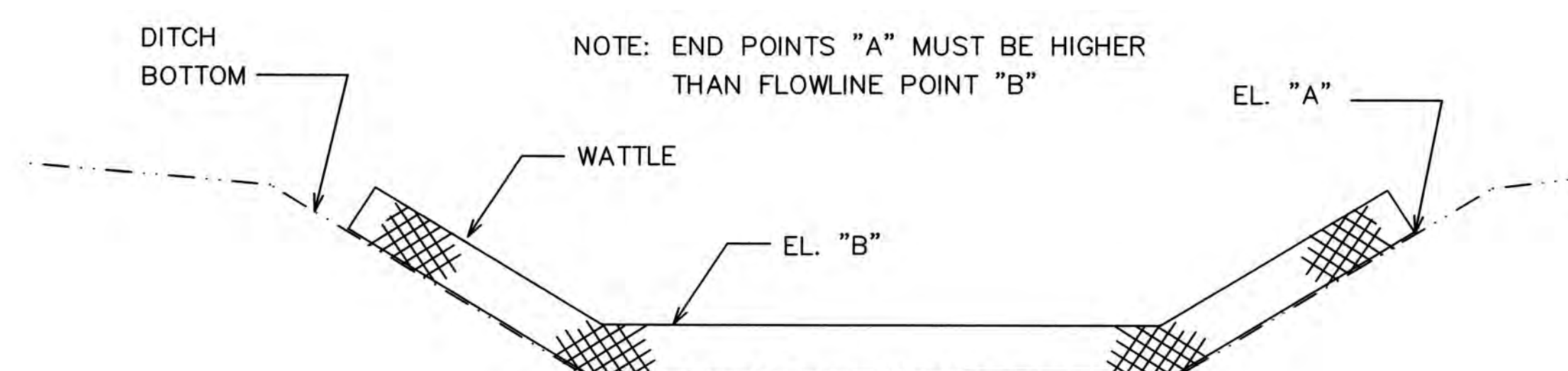
SHREVEPORT, LOUISIANA  
HAMMOND, LOUISIANA

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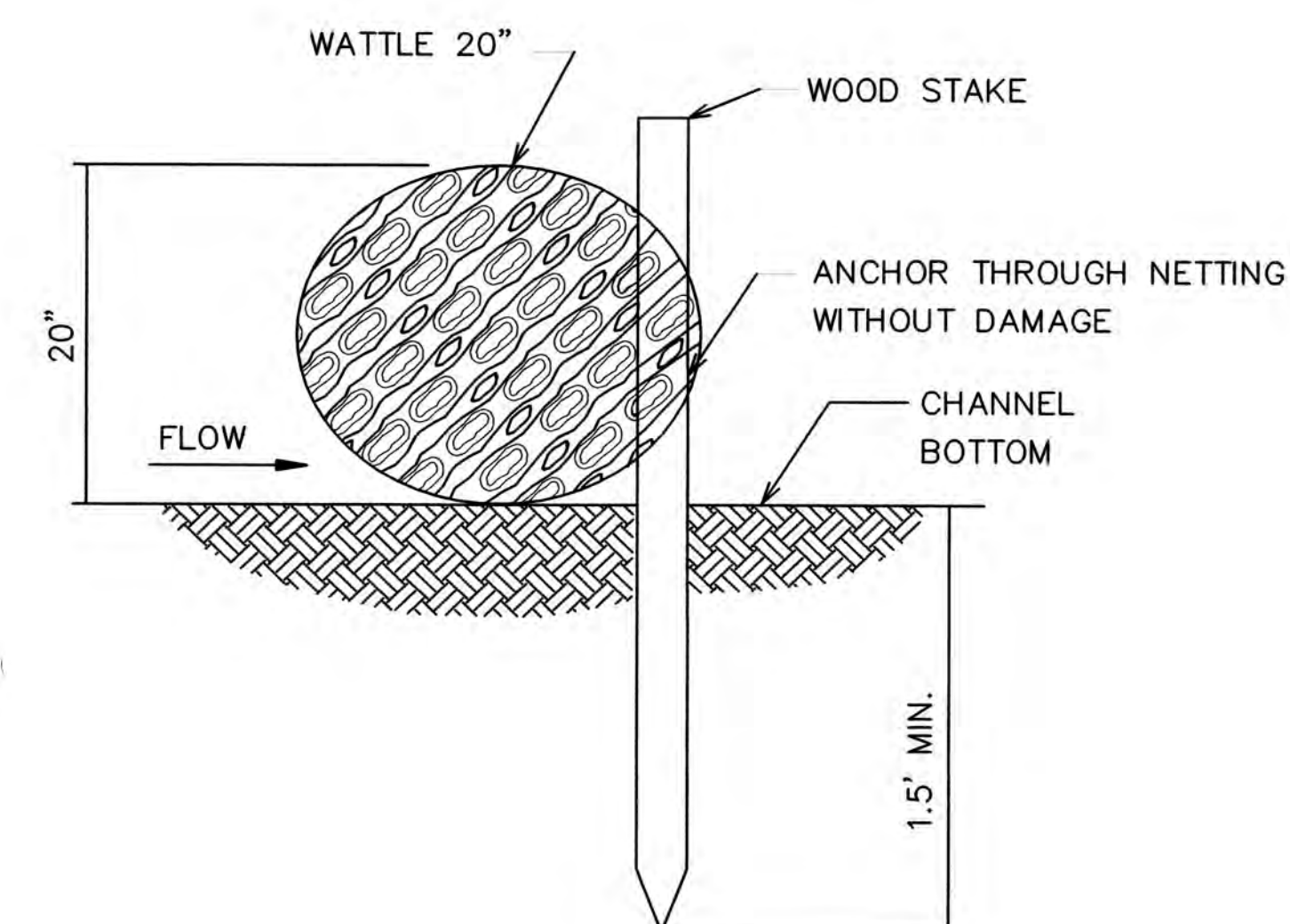




DETAIL (DITCH CHECK)



ELEVATION DETAIL



SECTION A-A

NOTES:

1. MINIMUM RECOMMENDED PLACEMENT INTERVAL BETWEEN WATTLE DITCH CHECK IS 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON ECD-4
2. ANCHORING WOOD STAKES SHALL BE SIZED, SPACED, DRIVEN, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET. ALL NON-DEGRADABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
3. TRENCHING OF WATTLES MAY BE NECESSARY IF PIPING BECOMES EVIDENT.
4. WATTLES SHOULD NOT BE USED IN HARD BOTTOM CHANNELS.

WATTLE DITCH CHECK SELECTION GUIDELINES

WATTLE DITCH CHECKS ARE APPROPRIATE FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS.



| NO. | REVISION | BY |
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EROSION CONTROL MEASURES

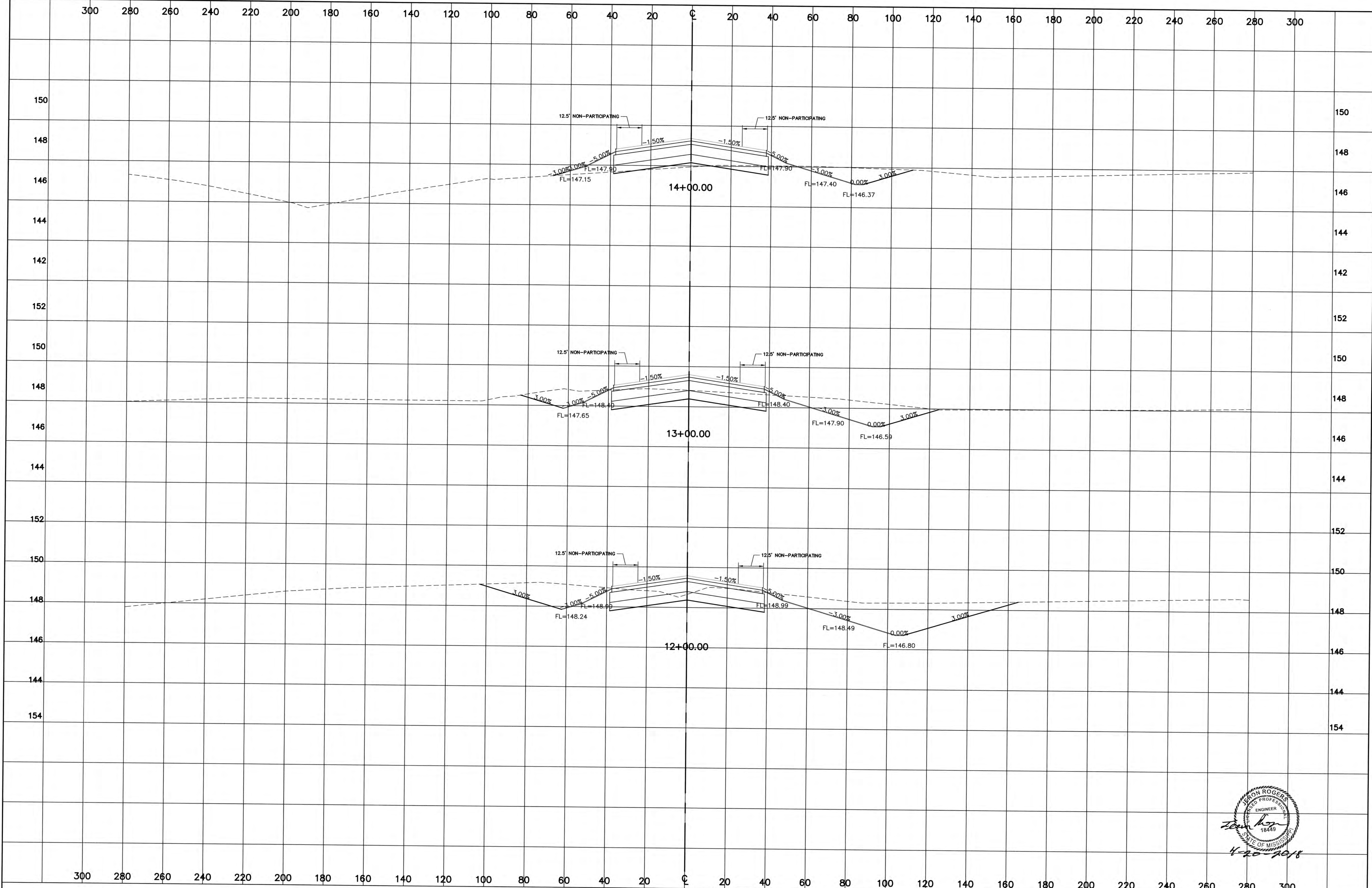
TAXIWAY A EXTENSION PART 2  
HATTIESBURG, MISSISSIPPI

**ARE**  
AIR REUNION  
CONSULTANTS

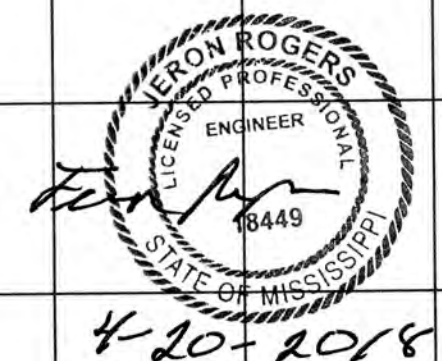
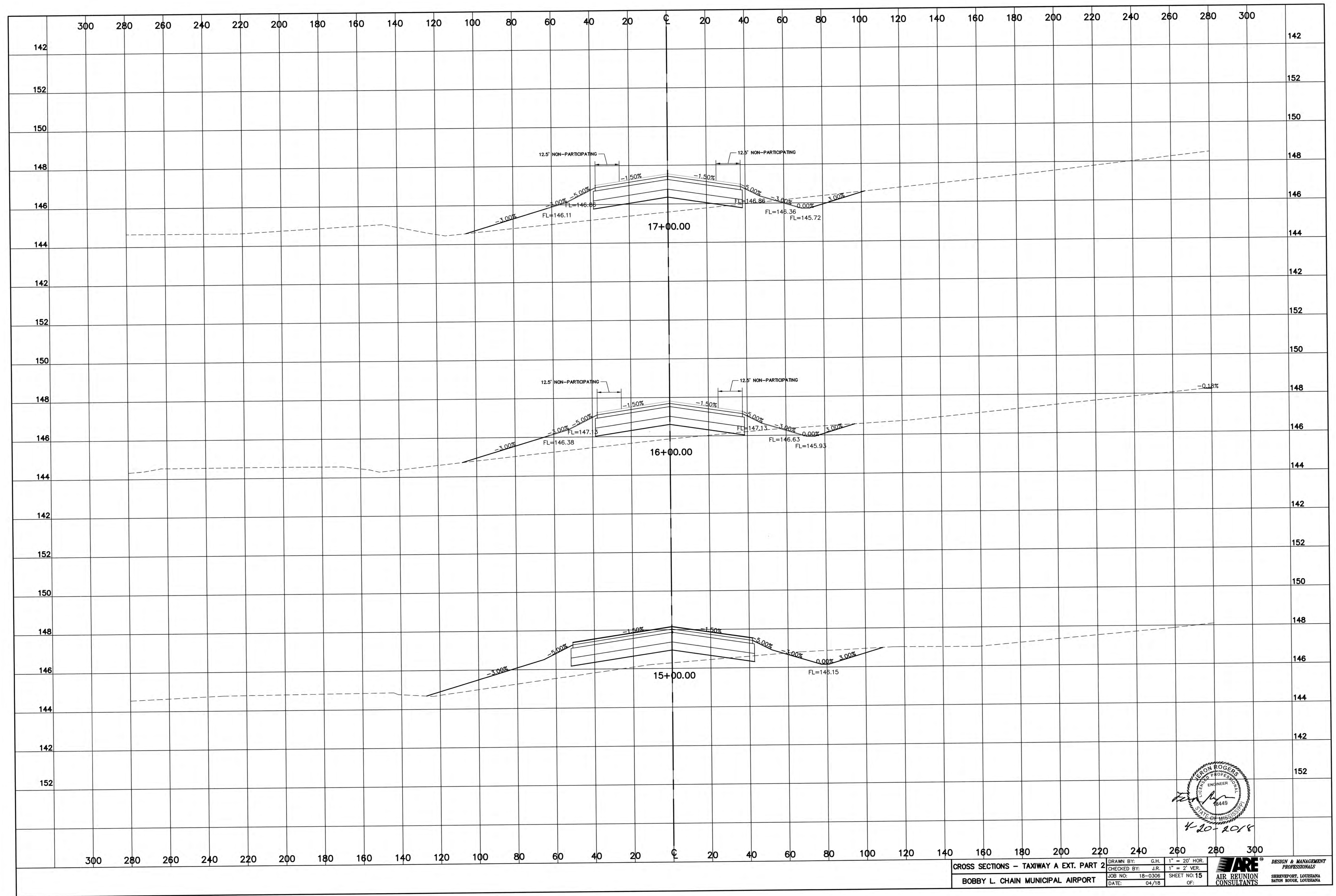
DESIGN & MANAGEMENT  
PROFESSIONALS  
SHREVEPORT, LOUISIANA  
HAMMOND, LOUISIANA

| DRAWN BY | CHECKED BY | JOB NO. | SCALE | DATE  | SHEET |
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| G.H.     | J.R.       | 18-0306 |       | 04/18 | 13    |

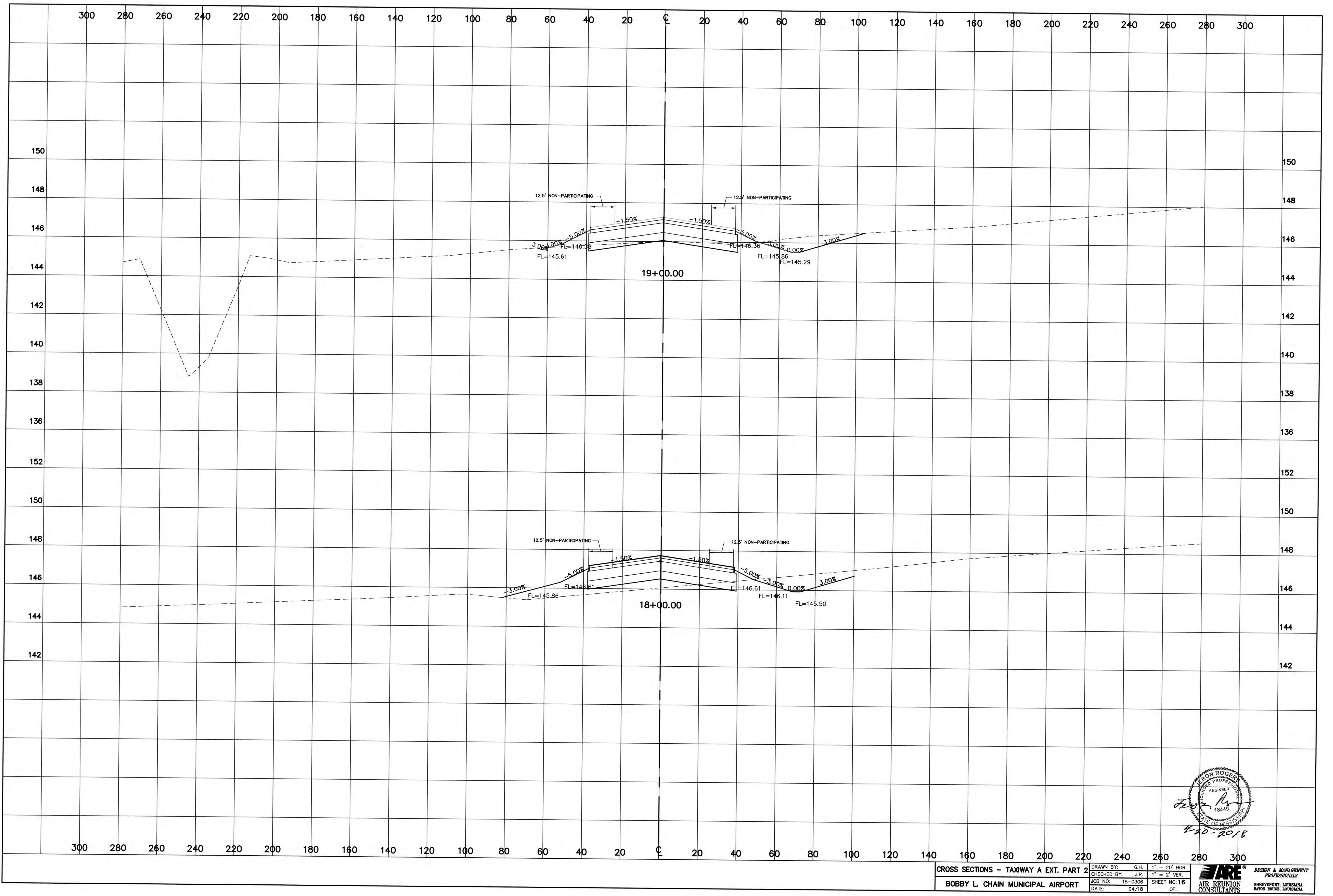












## **SECTION E: CONTRACT**

THIS AGREEMENT, made this 20th day of June, 2018 ,  
State of Mississippi, hereinafter called "Owner" and  
Warren Paving Inc.,  
hereinafter called the "Contractor".

WITNESSETH THAT, the Owner and Contractor do mutually agree as follows:

1. In consideration of the price for the work herein specified in the bid proposal to be paid by the Owner to the Contractor at the time and in a manner hereinafter provided, the Contractor does hereby agree to construct complete in every detail as follows:

**HATTIESBURG-BOBBY L. CHAIN MUNICIPAL AIRPORT  
TAXIWAY A EXTENSION PART 2**

**A.I.P Project No. 3-28-0031-0025-2018  
for the  
CITY OF HATTIESBURG**

in compliance with the advertisement of Bids, Proposal Form, Contract, Performance Bond, General Provisions, Specifications, Plans, and Addenda.

2. This price shall include the cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, transportation, and other accessories and services necessary to complete this project, in accordance with the Contract Documents.

3. The Contractor shall commence work under this Contract within ten (10) days from the date of the written "Order to Proceed" issued by the Owner. The Contractor shall complete all work under the Contract within one hundred (100) calendar days from the date of the "Order to Proceed".

The Owner has determined, and the Contractor agrees, that the liquidated damages for a delay in completion of this Contract will be One Thousand Dollars (\$1,000.00) per working day in excess of the stated time of completion.

4. That upon satisfactory completion of the work and approval by the Engineer, the Owner will issue a written acceptance of the work to the Contractor, who will immediately thereafter file same with the Recorder of Mortgages in County.

5. A retainage of ten percent (10%) shall be withheld from each progress payment. Upon successful clearance of the lien, the Contractor shall submit a final invoice, with the clear lien certificate, for payment by the Owner in accordance with standard payment procedures established by the City of Hattiesburg.

6. The Owner agrees to pay the Contractor for the performance of the Contract as provided in the Specifications, and to make monthly payments on account thereof as provided in the General conditions. The contract amount, as presented in bid by Contractor is \$ 783,331.00 or seven hundred eighty three thousand three hundred thirty one dollars and no cents (in words).

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in three (3) original counterparts on the day and year first herein above written.

WITNESSES:

Contractor: Warren Paving, Inc.

---

Signature:

---

Title:

WITNESSES:

Owner: Toby Barker, Mayor  
City of Hattiesburg

---

Signature:

---

Title: Mayor



## SECTION E: CONTRACT

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WITNESSES:

Contractor: Warren Paving, Inc.

\_\_\_\_\_

Signature:

\_\_\_\_\_

Title:

WITNESSES:

Owner: Toby Barker, Mayor  
City of Hattiesburg

  
\_\_\_\_\_

Signature:

\_\_\_\_\_

  
Title: Mayor



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-573**

**File ID:** 2018-573

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Lamar Rutland

**File Created:** 06/22/2018

**Brief Title:** Acknowledge receipt of easements from USM for the  
38th Avenue Pathway Project.

**Final Action:**

**Minute Book Number:** MB2018-171

**Title:**

Acknowledge receipt of a permanent Right-of-Way Easement for a portion of Tax Parcel No. 2-028L-07-018.00 (PPIN 23108), a permanent Right-of-Way Easement for a portion of Tax Parcel No. 2-028L-07-147.00 (PPIN 23169), and a Temporary Construction Easement for a portion of Tax Parcels 2-028L-07-148.00 (PPIN 23218), 2-028L-07-149.00 (PPIN 23219), and 2-028L-07-152.00 (PPIN 23217), all from the University of Southern Mississippi for the 38th Avenue Pathway Project; Authorize City Clerk to record permanent easements with the county.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VII.-4

**Sponsors:**

**Enactment Date:**

**Attachments:** Signed Easements - 38th Avenue.SOS

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Sharon Waits

**Effective Date:**

### History of Legislative File

| Ver-<br>sion: | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council | 07/03/2018 |         |          |           |                 |         |

### Text of Legislative File 2018-573

**Title**

Acknowledge receipt of a permanent Right-of-Way Easement for a portion of Tax Parcel No. 2-028L-07-018.00 (PPIN 23108), a permanent Right-of-Way Easement for a portion of Tax Parcel No. 2-028L-07-147.00 (PPIN 23169), and a Temporary Construction Easement for a

portion of Tax Parcels 2-028L-07-148.00 (PPIN 23218), 2-028L-07-149.00 (PPIN 23219), and 2-028L-07-152.00 (PPIN 23217), all from the University of Southern Mississippi for the 38th Avenue Pathway Project; Authorize City Clerk to record permanent easements with the county.

### **Summary**

Acknowledge receipt of easements from USM for the 38th Avenue Pathway Project.

### **Budget Information**

### **Expenditure Type**

### **Purchasing Item**

### **Publication Information**



DELBERT HOSEMAN  
*Secretary of State*

May 21, 2018

Randy Pope, City Attorney  
Post Office Box 17527  
Hattiesburg, Mississippi 39404

RE: Signed Easements – 38<sup>th</sup> Avenue

Randy:

Enclosed, please find the following documents:

1. 2 Permanent Easements
2. 1 Temporary Easement

Once these documents have been recorded, please send copies of the recorded permanent easements to my attention at the email address below.

If you have any questions or otherwise require our assistance, please do not hesitate to contact me at 601-359-6373 or via e-mail at [david.weems@sos.ms.gov](mailto:david.weems@sos.ms.gov).

Sincerely yours,

A handwritten signature in blue ink that reads "David A. Weems".

DAVID A. WEEMS  
Senior Attorney, Public Lands

Enclosure(s)

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**Grantee, prepared by and return to:**City of HattiesburgDepartment of EngineeringP. O. Box 1898Hattiesburg, MS 39403-1898Phone: (601) 545-4540Account No.**Grantor Address:**University of Southern Mississippi118 College Drive #5058Hattiesburg, MS 39406-0051Phone: (601) 266-4414Business No.: (601) 266-1000**PERMANENT RIGHT-OF-WAY EASEMENT****INDEXING INSTRUCTIONS:**

**Part of Lot 6, Block 10  
Of the Pine Crest Second Survey  
City of Hattiesburg  
NW ¼ of the NW ¼ of  
Section 7, T-4-N, R-13-W  
Forrest County, Mississippi**

Forrest County  
Tax Parcel No.: 2-028L-07-018.00  
PPIN 23108

---

**THE STATE OF MISSISSIPPI**

**County of Forrest**

**City of Hattiesburg**

For and in consideration of the sum of Ten Dollars (\$10.00), cash in hand paid, and other good and valuable considerations, including the benefits to be derived here from, the receipt and sufficiency of which is hereby acknowledged, the STATE OF MISSISSIPPI, for and on behalf of the Board of Trustees of State Institutions of Higher Learning and the University of Southern Mississippi, pursuant to the authority granted under Miss. Code Ann. §37-101-15, and hereinafter referred to as Grantor, does hereby grant, bargain, sell, and convey unto the City of Hattiesburg, Mississippi, a municipal corporation, **Permanent Right-of-Way** over, across and upon a parcel of real property, for the construction and maintenance of sidewalks and lighting (the "Right of Way Easement Area") situated and located in the City of Hattiesburg, County of Forrest, State of Mississippi, more particularly and certainly described as follows:

**A parcel of land being located in Lot 6, Block 10 of the Pine Crest Second Survey to the City of Hattiesburg, Forrest County, Mississippi, having bearings based upon Grid North and being more particularly described as follows:**

**Commence and Begin at the Southwest Corner of Lot 6, Block 10 of the Pine Crest Second Survey to the City of Hattiesburg, said point also being a point on the Eastern right-of-way boundary of North 38th Avenue; Thence run and along said Eastern right-of-way boundary, North 00 degrees 14 minutes 29 seconds East for a distance of 159.79 feet; Thence leaving said Eastern right-of-way boundary run, South 88 degrees 48 minutes 25 seconds East for a distance of 11.03 feet; Thence run, South 00 degrees 00 minutes 07 seconds East for a distance of 159.80 feet to a point on the Northern right-of-way boundary of Montague Boulevard, Thence run and along said Northern right-of-way boundary, North 88 degrees 49 minutes 11 seconds West a distance of 11.71 feet back to the POINT OF BEGINNING. Said parcel contains 0.04 acres (1,861 square feet), more or less.**

The Grantee herein is given full rights to do whatever may be reasonably necessary and proper for the enjoyment of the Right-of-Way Easement granted herein, including the right of ingress and egress and the right to clear said Easement Area of selected vegetation



such as shrubs, trees, and other vegetation, change of grade, installation and/or removal of pavements and any other structure named herein or otherwise as may be necessary to maintain the said Easement Area. The Grantee will restore any damage to the Easement Area or Grantor's adjacent property caused by this action or Grantee's use of the Easement Area.

It is further understood and agreed that this instrument constitutes the entire agreement between the Grantor and the Grantee, there being no oral agreements or representations of any kind.

WITNESS THE SIGNATURE OF THE GRANTOR, on this 2nd day of May, A.D., 2018.

  
University of Southern Mississippi, Grantor  
By: Allyson Easterwood  
Interim Vice President for Finance and Administration

STATE OF MISSISSIPPI

COUNTY OF Forrest

Personally appeared before me, the undersigned authority in and for the said County and State, on this 2nd day of May, 2018, within my jurisdiction, the within named Allyson Easterwood, who acknowledged that she is Interim Vice President for Finance and Administration of the University of Southern Mississippi, and that in said representative capacity she executed the above and foregoing instrument, after first having been duly authorized so to do.

  
(NOTARY PUBLIC)

(SEAL)  
My commission expires: July 31, 2021



STATE OF MISSISSIPPI

C. DELBERT HOSEMAN, JR.  
SECRETARY OF STATE

BY C. Delbert Hosemann, Jr.  
~~BILL CHENEY~~ C. Delbert Hosemann, Jr.  
~~ASSISTANT SECRETARY OF STATE FOR PUBLIC LANDS~~

STATE OF MISSISSIPPI  
COUNTY OF HINDS

PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED AUTHORITY  
IN AND FOR THE SAID COUNTY AND STATE, ON THIS THE 15<sup>th</sup> DAY OF  
May, 2018, WITHIN MY JURISDICTION, THE WITHIN NAMED,  
C. Delbert Hosemann, Jr. ~~BILL CHENEY~~, WHO ACKNOWLEDGED THAT HE IS ~~ASSISTANT SECRETARY~~  
~~OF STATE FOR PUBLIC LANDS~~ OF THE STATE OF MISSISSIPPI AND THAT IN  
SAID REPRESENTATIVE CAPACITY HE EXECUTED THE ABOVE AND  
FORGOING INSTRUMENT FOR AND ON BEHALF OF THE STATE OF MISSISSIPPI,  
AFTER FIRST HAVING BEEN DULY AUTHORIZED SO TO DO.

Mona Wilson Enstrom  
NOTARY PUBLIC

MY COMMISSION EXPIRES: \_\_\_\_\_



Approval by Governor:



Phil Bryant

State Of Mississippi  
County Of Hinds

PERSONALLY, APPEARED BEFORE ME, THE UNDERSIGNED AUTHORITY  
IN AND FOR THE SAID COUNTY AND STATE, ON THIS THE 18<sup>th</sup> DAY OF  
May, 2018, WITHIN MY JURISDICTION, THE WITHIN  
NAMED **PHIL BRYANT**, WHO ACKNOWLEDGED THAT HE IS **GOVERNOR OF**  
**THE STATE OF MISSISSIPPI** AND THAT IN SAID REPRESENTATIVE CAPACITY  
HE EXECUTED THE ABOVE AND FOREGOING INSTRUMENT FOR AND ON  
BEHALF OF THE STATE OF MISSISSIPPI, AFTER FIRST HAVING BEEN DULY  
AUTHORIZED SO TO DO.

<Official Seal>

My Commission Expires



Notary Public

**LEGAL DESCRIPTION (Sidewalk and Lighting Easement)**

A parcel of land being located in Lot 6 and part of a vacated alley, Block 10 of the Pine Crest Second Survey to the City of Hattiesburg, Forrest County, Mississippi, having bearings based upon Grid North and being more particularly described as follows:

Beginning at the Southwest Corner of Lot 6, Block 10 of the Pine Crest Second Survey to the City of Hattiesburg, said point also being a point on the Eastern right-of-way of North 38th Avenue, thence run along said right-of-way North 00 degrees 14 minutes 29 seconds East for a distance of 159.79 feet to a point on the centerline of a vacated alley; thence leaving said right-of-way run along said centerline South 88 degrees 48 minutes 25 seconds East for a distance of 11.03 feet; thence run South 00 degrees 00 minutes 07 seconds East for a distance of 159.80 feet to a point on the northern right-of-way of Montague Boulevard; thence run along said right-of-way North 88 degrees 49 minutes 11 seconds West for a distance of 11.71 feet back to the POINT OF BEGINNING. Said parcel contains 0.04 acres (1,861 square feet), more or less.

**LEGAL DESCRIPTION (Temporary Construction Easement)**

A parcel of land being located in Lot 6 and part of a vacated alley, Block 10 of the Pine Crest Second Survey to the City of Hattiesburg, Forrest County, Mississippi, having bearings based upon Grid North and being more particularly described as follows:

Commencing at the Southwest Corner of Lot 6, Block 10 of the Pine Crest Second Survey to the City of Hattiesburg, said point also being a point on the Northern right-of-way of Montague Boulevard; thence run along said right-of-way South 88 degrees 49 minutes 11 seconds East for a distance of 11.71 feet to and for the POINT OF BEGINNING; thence run North 00 degrees 00 minutes 07 seconds West for a distance of 159.80 feet to a point on the centerline of a vacated alley; thence run along said centerline South 88 degrees 48 minutes 25 seconds East for a distance of 5.00 feet; thence run South 00 degrees 00 minutes 03 seconds East for a distance of 159.79 feet to a point on the Northern right-of-way of said Montague Boulevard; thence run along said right-of-way North 88 degrees 49 minutes 11 seconds West for a distance of 5.00 feet back to the POINT OF BEGINNING. Said parcel contains 0.02 acres (799 square feet), more or less.

**NOTES:**

1. Class "B" Survey.
2. No Additional Record Search for Easements was Conducted.
3. Date of Field Survey: Nov. 2, 2017.
4. Orientation is based on GPS observation, Grid North, as referenced to MS State Plane Coordinate System, East Zone.

**REFERENCE MATERIAL:**

1. Pine Crest Second Survey for the City of Hattiesburg
2. Forrest County Tax Maps
3. Warranty Deed BK 962, PG 300

**LEGEND:**

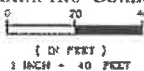
- PERMANENT SIDEWALK AND LIGHTING EASEMENT  
TEMP. CONSTRUCTION EASEMENT

- BK BOOK  
PG PAGE  
CYP FOUND CRIMP-TOP PIPE  
MPP FOUND METAL PIPE  
IPF FOUND IRON ROD  
SET IRON REBAR  
POB POINT OF BEGINNING  
POC POINT OF COMMENCEMENT  
UTILITY POLE  
MONUMENT FOUND

**STATE PLANE DATA**

State Plane Zone: MS East-2301  
Datum: NAD 1983  
Combined Factor: 0.999972331  
Convergence Angle: -0° 15' 58.59"  
Reference Point: P.O.B.

**GRAPHIC SCALE**



NORTH

**Clearpoint**  
CONSULTING ENGINEERS, P.A.

6652 US Highway 98 | Hattiesburg, MS 39402  
(601) 261-2609 | (601) 261-5573 | clearpointengineers.com

**Easement Survey**

UNIVERSITY OF SOUTHERN  
MISSISSIPPI  
PPIN: 23108

PREPARED FOR: CITY OF HATTIESBURG

MONTAGUE BLVD. (80' R.O.W.)

PRELIMINARY - PINS NOT SET

CCE NO.: 76242030

SCALE: 1" = 40'

DATE: 11/30/2017

CHECKED: RTB

DRAWN: JCR

SHEET 1 OF 1

Creating Location: Hattiesburg, MS. File: Laying Out: Hattiesburg, MS. Date: 11/30/2017

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**Grantee, prepared by and return to:**City of HattiesburgDepartment of EngineeringP. O. Box 1898Hattiesburg, MS 39403-1898Phone: (601) 545-4540Account No.**Grantor Address:**University of Southern Mississippi118 College Drive #5058Hattiesburg, MS 39406-0051Phone: (601) 266-4414Business No.: (601) 266-1000**PERMANENT RIGHT-OF-WAY EASEMENT****INDEXING INSTRUCTIONS:**

**Part of Lots 12 through 14, Block 19  
Of the Pine Crest Second Survey  
City of Hattiesburg  
SW ¼ of the NW ¼ of  
Section 7, T-4-N, R-13-W  
Forrest County, Mississippi**

Forrest County  
Tax Parcel No.:2-028L-07-147.00  
PPIN 23169

---

**THE STATE OF MISSISSIPPI**

**County of Forrest**

**City of Hattiesburg**

For and in consideration of the sum of Ten Dollars (\$10.00), cash in hand paid, and other good and valuable considerations, including the benefits to be derived here from, the receipt and sufficiency of which is hereby acknowledged, the STATE OF MISSISSIPPI, for and on behalf of the Board of Trustees of State Institutions of Higher Learning and the University of Southern Mississippi, pursuant to the authority granted under Miss. Code Ann. §37-101-15, and hereinafter referred to as Grantor, does hereby grant, bargain, sell, and convey unto the City of Hattiesburg, Mississippi, a municipal corporation, **Permanent Right-of-Way** over, across and upon a parcel of real property, for the construction and maintenance of sidewalks and lighting (the "Right of Way Easement Area") situated and located in the City of Hattiesburg, County of Forrest, State of Mississippi, more particularly and certainly described as follows:

**A parcel of land being located in Lots 12 - 14, Block 19 of the Pine Crest Second Survey to the City of Hattiesburg, Forrest County, Mississippi, having bearings based upon Grid North and being more particularly described as follows:**

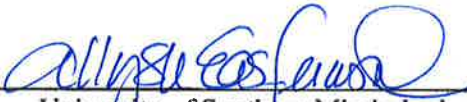
**Beginning at the Southwest Corner of Lot 14, Block 19 of the Pine Crest Second Survey to the City of Hattiesburg, said point also being a point on the Eastern right-of-way of North 38th Avenue; thence run along said right-of-way North 00 degrees 14 minutes 29 seconds East for a distance of 150.00 feet to a point on the North line of Lot 12; thence leaving said right-of-way run along the North line of said Lot 12 South 88 degrees 45 minutes 09 seconds East for a distance of 12.46 feet; thence run South 00 degrees 16 minutes 36 seconds West for a distance of 149.99 feet to a point on the Northern right-of-way of Pearl Street; thence run along said right-of-way North 88 degrees 48 minutes 29 seconds West a distance of 12.36 feet back to the POINT OF BEGINNING. Said parcel contains 0.04 acres (1,861 square feet), more or less.**

The Grantee herein is given full rights to do whatever may be reasonably necessary and proper for the enjoyment of the Right-of-Way Easement granted herein, including the right of ingress and egress and the right to clear said Easement Area of selected vegetation

such as shrubs, trees, and other vegetation, change of grade, installation and/or removal of pavements and any other structure named herein or otherwise as may be necessary to maintain a said Easement Area. The Grantee will restore any damage to the Easement Area or Grantors' adjacent property caused by this action or Grantee's use of the Easement Area.

It is further understood and agreed that this instrument constitutes the entire agreement between the Grantor and the Grantee, there being no oral agreements or representations of any kind.

WITNESS THE SIGNATURE OF THE GRANTOR, on this 2nd day of May, 2018.

  
University of Southern Mississippi, Grantor  
By: Allyson Easterwood  
Interim Vice President for Finance and Administration

STATE OF MISSISSIPPI

COUNTY OF Forrest

Personally, appeared before me, the undersigned authority in and for the said County and State, on this 2nd day of May, 2018, within my jurisdiction, the within named Allyson Easterwood, who acknowledged that she is Interim Vice President for Finance and Administration for the University of Southern Mississippi, and that in said representative capacity she executed the above and foregoing instrument, after first having been duly authorized so to do.

(SEAL)

NOTARY PUBLIC



My commission expires: July 31, 2021





STATE OF MISSISSIPPI

C. DELBERT HOSEMAN, JR.  
SECRETARY OF STATE

BY C. Delbert Hosemann, Jr.  
~~BILL CHENEY~~ C. Delbert Hosemann, Jr.  
~~ASSISTANT SECRETARY OF STATE FOR PUBLIC LANDS~~

STATE OF MISSISSIPPI  
COUNTY OF HINDS

PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED AUTHORITY IN  
AND FOR THE SAID COUNTY AND STATE, ON THIS THE 15<sup>th</sup> DAY OF  
May, 2018, WITHIN MY JURISDICTION, THE WITHIN NAMED,  
C. Delbert Hosemann, Jr. ~~BILL CHENEY~~, WHO ACKNOWLEDGED THAT HE IS ~~ASSISTANT~~ SECRETARY OF  
STATE ~~FOR PUBLIC LANDS~~ OF THE STATE OF MISSISSIPPI AND THAT IN SAID  
REPRESENTATIVE CAPACITY HE EXECUTED THE ABOVE AND FORGOING  
INSTRUMENT FOR AND ON BEHALF OF THE STATE OF MISSISSIPPI, AFTER FIRST  
HAVING BEEN DULY AUTHORIZED SO TO DO.

Mona Wilson Enstrom  
NOTARY PUBLIC

MY COMMISSION EXPIRES: \_\_\_\_\_





Approval by Governor:



Phil Bryant

State Of Mississippi  
County Of Hinds

PERSONALLY, APPEARED BEFORE ME, THE UNDERSIGNED AUTHORITY IN  
AND FOR THE SAID COUNTY AND STATE, ON THIS THE 18<sup>th</sup> DAY OF  
May, 2018, WITHIN MY JURISDICTION, THE WITHIN  
NAMED Phil Bryant, WHO ACKNOWLEDGED THAT HE IS Governor of the State of  
Mississippi AND THAT IN SAID REPRESENTATIVE CAPACITY HE EXECUTED THE  
ABOVE AND FOREGOING INSTRUMENT FOR AND ON BEHALF OF THE STATE OF  
MISSISSIPPI, AFTER FIRST HAVING BEEN DULY AUTHORIZED SO TO DO.

<Official Seal>

Notary Public

My Commission Expires:





**LEGAL DESCRIPTION (Sidewalk and Lighting Easement)**

A parcel of land being located in Lots 12 - 14, Block 19 of the Pine Crest Second Survey in the City of Hattiesburg, Forrest County, Mississippi, having bearings based upon Grid North and being more particularly described as follows:

Beginning at the Southwest Corner of Lot 14, Block 19 of the Pine Crest Second Survey in the City of Hattiesburg, said point also being a point on the Eastern right-of-way of North 38th Avenue, thence run along said right-of-way North 00 degrees 14 minutes 29 seconds East for a distance of 150.00 feet to a point on the North line of Lot 12, thence leaving said right-of-way run along the North line of said Lot 12 South 88 degrees 45 minutes 03 seconds East for a distance of 12.46 feet, thence run South 00 degrees 16 minutes 36 seconds West for a distance of 149.99 feet to a point on the Northern right-of-way of Pearl Street, thence run along said right-of-way North 88 degrees 48 minutes 29 seconds West a distance of 12.36 feet back to the POINT OF BEGINNING. Said parcel contains 0.04 acres (1,861 square feet), more or less.

**NOTES:**

1. Class "B" Survey
2. No Additional Record Search for Easements was Conducted
3. Date of Field Survey: Nov. 2, 2017
4. Orientation is based on GPS observation, Grid North, as referenced to MS State Plane Coordinate System, East Zone

**REFERENCE MATERIAL:**

1. Pine Crest Second Survey for the City of Hattiesburg
2. Forrest County Tax Maps
3. Warranty Deed BK 742, PG 604

**LEGEND:**

- PERMANENT SIDEWALK AND LIGHTING EASEMENT
- TEMP. CONSTRUCTION EASEMENT
- BK BOOK
- PG PAGE
- CTP FOUND CTRIP-TOP PIPE
- MPF FOUND METAL PIPE
- HPF FOUND IRON ROD
- SET SET IRON REBAR
- POB POINT OF BEGINNING
- POC POINT OF COMMENCEMENT
- UPP UTILITY POLE
- MON MONUMENT FOUND

**STATE PLANE DATA**

State Plane Zone: MS East-2301  
Datum: NAD 1983  
Combined Factor: 0.999972333  
Convergence Angle: -0° 15' 58.54"  
Reference Point: P.O.B.



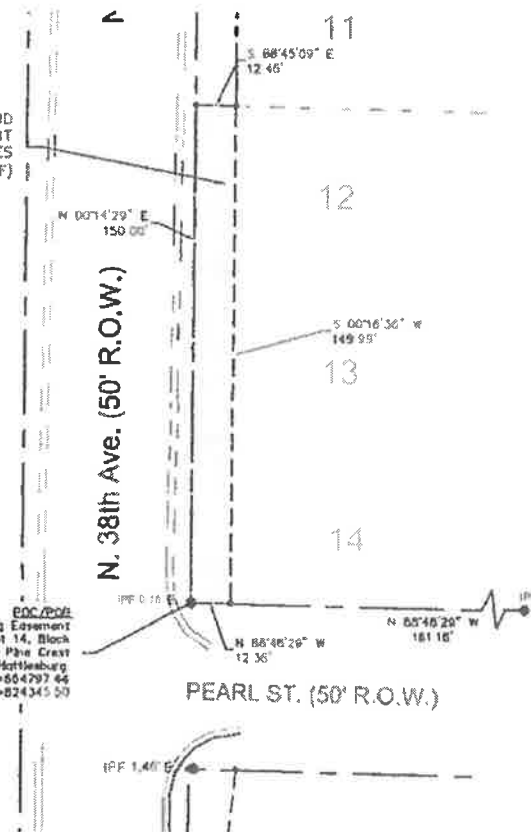
GRAPHIC SCALE  
0 20 40  
( IN FEET )  
1 INCH = 40 FEET

SIDEWALK AND  
LIGHTING EASEMENT  
±0.04 ACRES  
(±1,861 SF)

N. 38th Ave. (50' R.O.W.)

PEARL ST. (50' R.O.W.)

Sidewalk and Lighting Easement  
Southwest Corner of Lot 14, Block  
19, Secondary Survey Pine Crest  
Added to the City of Hattiesburg  
Northing=864797.44  
Easting=824345.50



PRELIMINARY - PINS NOT SET

**Clearpoint**  
CONSULTING ENGINEERS, P.A.

6652 US Highway 98 | Hattiesburg, MS 39402  
1.601.261.2609 | 1.601.261.5573 | clearpointengineers.com

**Easement Survey**

UNIVERSITY OF SOUTHERN  
MISSISSIPPI  
PPIN: 23169

PREPARED FOR: CITY OF HATTIESBURG

CCE NO: 76242030

SCALE: 1" = 40'

DATE: 11/30/2017

CHECKED: RTB

DRAWN: JCR

SHEET 1 OF 1

Survey License 0000000000 - MS Land Surveying Board

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**Grantee, prepared by and return to:**City of HattiesburgDepartment of EngineeringP. O. Box 1898Hattiesburg, MS 39403-1898Phone: (601) 545-4540Account No.**Grantor Address:**University of Southern Mississippi118 College Drive #5058Hattiesburg, MS 39406-0051Phone: (601) 266-4414Business No.: (601) 266-1000**TEMPORARY CONSTRUCTION EASEMENT****INDEXING INSTRUCTIONS:**

**Part of Lots 7 and 8, Block 24  
of the Pine Crest Second Survey  
City of Hattiesburg  
Forrest County, Mississippi**

**Forrest County**

**Tax Parcel No.:2-028L-07-148.00 PPIN 23218**

**Tax Parcel No.:2-028L-07-149.00 PPIN 23219**

**Tax Parcel No.:2-028L-07-152.00 PPIN 23217**

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**STATE OF MISSISSIPPI**

**County of Forrest**

**City of Hattiesburg**

For and in consideration of the sum of Ten Dollars (\$10.00), cash in hand paid, the receipt and sufficiency of all of which is hereby acknowledged and confessed, including the benefits to be derived here from, the **UNIVERSITY OF SOUTHERN MISSISSIPPI**, an Institution of Higher Learning, does hereby grant and convey unto the **CITY OF HATTIESBURG, MISSISSIPPI**, a municipal corporation, a Temporary Construction Easement for the North 38<sup>th</sup> Avenue Sidewalk Project as hereinafter described, with full and free right, liberty and authority to enter upon and dig, construct and maintain incidental construction. Said Temporary Construction Easement is located and situated in the City of Hattiesburg, Forrest County, Mississippi and more particularly described as follows, to-wit:

**A parcel of land being located in Lots 7 and 8, Block 24 of the Pine Crest Second Survey to the City of Hattiesburg, Forrest County, Mississippi, having bearings based upon Grid North and being more particularly described as follows:**

**Commence at the Northwest Corner of Lot 15, Block 24 of the Pine Crest Second Survey to the City of Hattiesburg, said point also being a point on the Southern right-of-way boundary of Pearl Street; Thence run and along said Southern right-of-way boundary, South 88 degrees 48 minutes 29 seconds East for a distance of 14.58 feet; Thence leaving said Southern right-of-way boundary run, South 06 degrees 37 minutes 10 seconds West for a distance of 20.90 feet; Thence run, South 00 degrees 16 minutes 36 seconds West for a distance of 372.70 feet to the POINT OF BEGINNING; Thence run, South 89 degrees 43 minutes 24 seconds East for a distance of 5.00 feet; Thence run, South 00 degrees 13 minutes 45 seconds West for a distance of 35.00 feet; Thence run, North 89 degrees 43 minutes 24 seconds West for a distance of 5.03 feet; Thence run, North 00 degrees 16 minutes 36 seconds East a distance of 35.00 feet back to the POINT OF BEGINNING. Said parcel contains 0.004 acres (176 square feet), more or less.**

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Forrest County

Tax Parcel No.:2-028L-07-148.00 PPIN 23218

Tax Parcel No.:2-028L-07-149.00 PPIN 23219

Tax Parcel No.:2-028L-07-152.00 PPIN 23217

The Grantee, the City of Hattiesburg, Mississippi, is hereby given the right to do whatever may be necessary and proper for the enjoyment of the rights herein granted, including the right of ingress and egress and the right to clear said right of way above described of such trees and shrubs as may be necessary for the full enjoyment of the rights herein granted. The Grantee will restore any damage to the Easement Area or Grantor's adjacent property caused by this action or Grantee's use of the Easement Area. This construction easement will revert to the Grantor upon completion of construction.

WITNESS THE SIGNATURE OF THE GRANTOR, on this, the 2nd day of May, A.D., 2018.

A handwritten signature in blue ink, appearing to read "Allyson Easterwood", is written over a horizontal line.

University of Southern Mississippi, Grantor  
By: Allyson Easterwood  
Interim Vice President for Finance and Administration

Forrest County

Tax Parcel No.:2-028L-07-148.00 PPIN 23218  
Tax Parcel No.:2-028L-07-149.00 PPIN 23219  
Tax Parcel No.:2-028L-07-152.00 PPIN 23217

STATE OF MISSISSIPPI

COUNTY OF Forrest

Personally appeared before me, the undersigned authority in and for the said County and State,  
on this 2nd day of May, 2018, within my jurisdiction, the within named Allyson  
Easterwood, who acknowledged that she is Interim Vice President for Finance and Administration  
of the University of Southern Mississippi, and that in said representative capacity she executed  
the above and foregoing instrument, after first having been duly authorized so to do.

Shannon L. Ladner

(NOTARY PUBLIC)

(SEAL)



My commission expires: July 31, 2021

Forrest County

Tax Parcel No.:2-028L-07-148.00 PPIN 23218  
Tax Parcel No.:2-028L-07-149.00 PPIN 23219  
Tax Parcel No.:2-028L-07-152.00 PPIN 23217



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-574**

**File ID:** 2018-574

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Lamar Rutland

**File Created:** 06/22/2018

**Brief Title:** Acknowledge receipt of permanent easements for the COMSWIP Sewer Phase V project.

**Final Action:**

**Minute Book Number:** MB2018-171-172

**Title:**

Acknowledge receipt of signed and notarized permanent easements for a portion of Lamar County Parcels as detailed below for the COMSWIP Sewer Phase V project; Authorize payment to property owners for established values as noted below.

| Value       | Lamar County Parcel No. |
|-------------|-------------------------|
| \$ 1,800.00 | 052A-03-004.045         |
| \$ 6,000.00 | 052A-03-004.046         |
| \$ 1,800.00 | 052A-03-004.047         |
| \$ 1,200.00 | 052A-03-004.048         |
| \$ 1,800.00 | 052A-03-004.049         |
| \$ 2,550.00 | 052A-03-004.050         |

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VII.-5

**Sponsors:**

**Enactment Date:**

**Attachments:** Signed Perm Easement.Weill.1, Signed Easement.Bevar.1, Signed Easement.Hester.1, Signed Easement.Regina Lee.1, Signed Easement.Eye.1, Signed Permanent Easement.Rutland.1

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Sharon Waits

**Effective Date:**

### History of Legislative File

| Ver-<br>sion: | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council | 07/03/2018 |         |          |           |                 |         |

## **Text of Legislative File 2018-574**

### **Title**

Acknowledge receipt of signed and notarized permanent easements for a portion of Lamar County Parcels as detailed below for the COMSWIP Sewer Phase V project; Authorize payment to property owners for established values as noted below.

| Value       | Lamar County Parcel No. |
|-------------|-------------------------|
| \$ 1,800.00 | 052A-03-004.045         |
| \$ 6,000.00 | 052A-03-004.046         |
| \$ 1,800.00 | 052A-03-004.047         |
| \$ 1,200.00 | 052A-03-004.048         |
| \$ 1,800.00 | 052A-03-004.049         |
| \$ 2,550.00 | 052A-03-004.050         |

### **Summary**

Acknowledge receipt of permanent easements for the COMSWIP Sewer Phase V project.

### **Budget Information**

093695.7220.54

### **Expenditure Type**

2016 Bonds



|                                            |                         |
|--------------------------------------------|-------------------------|
| <b>Grantee, prepared by and return to:</b> | <b>Grantor Address:</b> |
| City of Hattiesburg                        | Eric N. Weill           |
| Department of Public Services              | 71 J Ed Turner Road     |
| P. O. Box 1898                             | Hattiesburg, MS 39402   |
| Hattiesburg, MS 39403-1898                 |                         |
| <b>Phone:</b> (601) 545-4540               | <b>Phone:</b>           |
| <b>Account No.</b>                         | <b>Business No.</b>     |

**PERMANENT EASEMENT**

**INDEXING INSTRUCTIONS:**     **PART OF THE NORTHEAST ¼ OF THE  
NORTHEAST ¼ OF SECTION 3, TOWNSHIP  
4 NORTH, RANGE 14 WEST, IN THE CITY  
OF HATTIESBURG, COUNTY OF LAMAR,  
STATE OF MISSISSIPPI.**

Initial  \_\_\_\_\_

Shows, Dearman and Waits, Inc.  
Consulting Engineers  
Project No.: COMSWIP Sewer Project Phase V  
County Tax Parcel No.: 052A-03-004.045

**THE STATE OF MISSISSIPPI  
COUNTY OF LAMAR  
CITY OF HATTIESBURG**

For and in consideration of **ONE THOUSAND EIGHT HUNDRED AND NO/100 DOLLARS (\$1,800.00)**, and other good and valuable considerations, including the benefits to be derived herefrom, the receipt and sufficiency of which is hereby acknowledged, I, the undersigned, hereby grant, bargain, sell, and convey a Permanent Easement unto the City of Hattiesburg, Mississippi, a municipal corporation, through, over, on and across the following described real property located in the City of Hattiesburg, County of Lamar, State of Mississippi:

A 20.00 foot wide Utility Easement being described as being a part of the Northeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 3, Township 4 North, Range 14 West, in the City of Hattiesburg, County of Lamar, State of Mississippi and being more particularly described as Commencing at a  $\frac{1}{2}$  Inch Rebar representing the Northeast Corner of said Section 3, thence run S89°54'16"W along the North Line of said Section for 773.35 feet to a  $\frac{1}{2}$  Inch Rebar representing the Northeast Corner of the Grantor's Property as per Record Deed Book 20N, Page 146 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S00°19'15"W along the East Line of said Grantor's Property for 21.48 feet to a  $\frac{1}{2}$  Inch Rebar representing a Point on the South Line of a Pipeline Easement as per Record Deed Book 3U, Page 15 thereof on file in the Office of the Chancery Clerk of said Lamar County and the Point of Beginning; thence continue S00°19'15"W along said East Property Line for 20.00 feet to a  $\frac{1}{2}$  Inch Rebar, thence run N89°54'19"W and parallel to said South Easement Line for 257.63 feet to a  $\frac{1}{2}$  Inch Rebar representing a Point on the West Line of said Grantor's Property, thence run N00°19'39"E along said West Property Line for 20.00 feet to a  $\frac{1}{2}$  Inch Rebar representing a Point on said South Easement Line, thence run S89°54'19"E along said South Easement Line for 257.63 feet to the Point of Beginning, comprising **0.12 Acres (5,153 Square Feet)**, more or less.

**See Exhibit "A"**

Initial  \_\_\_\_\_

Eric N. Weill  
County Tax Parcel No.: 052A-03-004.045

The Grantee herein is given full rights to do whatever may be necessary and proper for the enjoyment of the rights granted herein, including the right of ingress and egress and the right to clear said easement of selected vegetation such as shrubs, trees, and other vegetation, change of grade, installation and/or removal of pavements and any other structure named herein or otherwise as may be necessary. Grantee will restore any damage caused by this action.

The grantor herein further warrants that the above described property is no part of his homestead

This conveyance is made subject to any outstanding oil, gas or mineral leases and/or royalty transfers or prior reservations.

The conveyance shall be subject to any and all easements and right-of-ways of record.

It is further understood and agreed that the consideration herein named is in full, complete and final payment and settlement of any claims or demands for damage accrued, accruing, or to accrue to the grantors herein, their heirs, assigns, or legal representatives, for or on account of the construction of the proposed sewage project, change of grade, water damage, and/or any other damage, right or claim whatsoever.

It is further understood and agreed that this instrument constitutes the entire agreement between the grantor and the grantee, there being no oral agreements or representations of any kind..

Witness my signature, this the 4 day of OCTOBER, 2017.

Signature: 

Print Name: Eric N. Weill

Initial  \_\_\_\_\_

Eric N. Weill  
County Tax Parcel No.: 052A-03-004.045

STATE OF MISSISSIPPI

COUNTY OF Walthall

Personally appeared before me, the undersigned authority in and for the said County and State, on this 04 day of October, 2017, within my jurisdiction, the within named **Eric N. Weill**, who acknowledged before me that he signed, executed and delivered the above and foregoing instrument on the day and year therein as his own free and voluntary act and deed.



Rebecca Concienne  
NOTARY PUBLIC

Initial

EW

Eric N. Weill  
County Tax Parcel No.: 052A-03-004.045



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**Prepared by and return to:**

**Pittman Law Firm**

**c/o Jack H. Pittman**

**P. O. Drawer 17138**

**Hattiesburg, MS 39404**

**Grantee:**

City of Hattiesburg

Department of Public Services

P. O. Box 1898

Hattiesburg, MS 39403-1898

**Phone:** (601) 545-4540

**Account No.**

**Grantor:**

Brent D. Bevard, DO

131 J Ed Turner Dr.

Hattiesburg, MS

**Phone:**

**Business No.**

**PERMANENT EASEMENT**

**INDEXING INSTRUCTIONS:**

**A PART OF THE NORTHWEST ¼ OF THE  
NORTHEAST ¼ OF SECTION 3, TOWNSHIP  
4 NORTH, RANGE 14 WEST, IN THE CITY  
OF HATTIESBURG, COUNTY OF LAMAR,  
STATE OF MISSISSIPPI.**

Initial

B.D.B

Shows, Dearman and Waits, Inc.  
Consulting Engineers

Project No.: COMSWIP Sewer Project Phase V  
County Tax Parcel No.: 052A-03-004.050

**THE STATE OF MISSISSIPPI**

**COUNTY OF LAMAR**

**CITY OF HATTIESBURG**

For and in consideration of **TWO THOUSAND FIVE HUNDRED FIFTY AND NO/100 DOLLARS (\$2,550.00)**, and other good and valuable considerations, including the benefits to be derived herefrom, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, hereby grant, bargain, sell, and convey a Permanent Easement unto the City of Hattiesburg, Mississippi, a municipal corporation, through, over, on and across the following described real property located in the City of Hattiesburg, County of Lamar, State of Mississippi:

A variable width Utility Easement being described as being a part of the Northwest ¼ of the Northeast ¼ of Section 3, Township 4 North, Range 14 West, in the City of Hattiesburg, County of Lamar, State of Mississippi and being more particularly described as **Commencing** at a ½ Inch Rebar representing the Northeast Corner of said Section 3, thence run S89°54'16"W along the North Line of said Section for 773.35 feet to a ½ Inch Rebar representing the Northeast Corner of a Parcel of Land as per Record Deed Book 20N, Page 146 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run N89°55'36"W along said North Line for 515.33 feet to a ½ Inch Rebar representing the Northeast Corner of a Parcel of Land as per Record Deed Book 22S, Page 73 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S89°42'06"W along said North Line for 375.93 feet to a ¾ Inch Crimp Top Pin representing the Northeast Corner of a Parcel of Land as per Record Deed Book 24I, Page 388 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S89°56'10"W along said North Line for 79.96 feet to a ¾ Inch Crimp Top Pin representing the Northwest Corner of said Parcel, thence run S89°55'05"W along said North Line for 317.43 feet to a Point on the extension of the East Line of Grantor's Property as per Record Deed Book 24G, Page 466 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S00°19'55"W along said extension for 10.70 feet to the Northeast Corner of said Grantor's Property, thence continue S00°19'55"W along said East Property Line for 8.10 feet to a ½ Inch Rebar representing a Point on the South Line of a Pipeline Easement as per Record Deed Book 3U, Page 15 thereof on file in the Office of the Chancery Clerk of said Lamar County and the **Point of Beginning**; thence continue S00°19'55"W along said East Property Line for 31.42 feet to a ½ Inch Rebar representing a Point on the North Line of a Utility Easement as per Record Deed Book 22C, Page 636 thereof on file in the Office of

Initial

B. D. B

Brent Bevard  
County Tax Parcel No.: 052A-03-004.050

the Chancery Clerk of said Lamar County, thence run N89°33'04"W along said North Easement Line for 257.77 feet to a ½ Inch Rebar representing a Point on the West Line of the Grantor's Property and the East Line of Augusta Court Subdivision of Greystone as per map or plat thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run N00°19'21"E along said West Property Line and said East Subdivision Line for 27.55 feet to a ½ Inch Rebar representing a Point on said South Easement Line, thence run N89°35'20"E along said South Easement Line for 257.80 feet to the **Point of Beginning**, comprising **0.17 Acres (7,601 Square Feet)**, more or less.

**See Exhibit "A"**

The Grantee herein is given full rights to do whatever may be necessary and proper for the enjoyment of the rights granted herein, including the right of ingress and egress and the right to clear said easement of selected vegetation such as shrubs, trees, and other vegetation, change of grade, installation and/or removal of pavements and any other structure named herein or otherwise as may be necessary. Grantee will restore any damage caused by this action. Further, as part of the consideration for the rights herein conveyed, Grantee agrees to locate the utility sewage line within the 20 foot easement by boring under Grantor's driveway.

The grantor herein further warrants that the above described property is no part of his homestead.

This conveyance is made subject to any outstanding oil, gas or mineral leases and/or royalty transfers or prior reservations.

The conveyance shall be subject to any and all easements and right-of-ways of record.

It is further understood and agreed that the consideration herein named is in full, complete and final payment and settlement of any claims or demands for damage accrued, accruing, or to accrue to the grantors herein, their heirs, assigns, or legal

Initial B.D.B

Brent Bevard  
County Tax Parcel No.: 052A-03-004.050



representatives, for or on account of the construction of the proposed sewage project, change of grade, water damage, and/or any other damage, right or claim whatsoever.

It is further understood and agreed that this instrument constitutes the entire agreement between the grantor and the grantee, there being no oral agreements or representations of any kind.

Witness my signature, this the 13<sup>TH</sup> day of MAY, 2018.

Signature: [Signature]

Print Name: **Brent Bevard**

STATE OF MISSISSIPPI

COUNTY OF LAMAR

Personally appeared before me, the undersigned authority in and for the said County and State, on this 13<sup>TH</sup> day of MAY, 2018, within my jurisdiction, the within named **Brent Bevard**, who acknowledged before me that he signed, executed and delivered the above and foregoing instrument on the day and year therein as his own free and voluntary act and deed.

[Signature]  
NOTARY PUBLIC

(SEAL)



Initial B D B

Brent Bevard  
County Tax Parcel No.: 052A-03-004.050

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**Return To:****Pittman Law Firm****Attn: Jack H. Pittman****P. O. Drawer 17138****Hattiesburg, MS 39404****Grantee, prepared by:**City of HattiesburgDepartment of Public ServicesP. O. Box 1898Hattiesburg, MS 39403-1898Phone: (601) 545-4540Account No.**Grantor Address:**Wesley S. Hester85 J Ed Turner RoadHattiesburg, MS 39402Phone:Business No.**PERMANENT EASEMENT**

**INDEXING INSTRUCTIONS: PART OF THE NORTH ½ OF THE  
NORTHEAST ¼ OF SECTION 3, TOWNSHIP  
4 NORTH, RANGE 14 WEST, IN THE CITY  
OF HATTIESBURG, COUNTY OF LAMAR,  
STATE OF MISSISSIPPI.**

Initial HR

Shows, Dearman and Waits, Inc.

Consulting Engineers

Project No.: COMSWIP Sewer Project Phase V

County Tax Parcel No.: 052A-03-004.047

**THE STATE OF MISSISSIPPI**  
**COUNTY OF LAMAR**  
**CITY OF HATTIESBURG**

For and in consideration of **ONE THOUSAND EIGHT HUNDRED AND NO/100 DOLLARS (\$1,800.00)**, and other good and valuable considerations, including the benefits to be derived herefrom, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, hereby grant, bargain, sell, and convey a Permanent Easement unto the City of Hattiesburg, Mississippi, a municipal corporation, through, over, on and across the following described real property located in the City of Hattiesburg, County of Lamar, State of Mississippi:

A 20.00 foot wide Utility Easement being described as being a part of the North ½ of the Northeast ¼ of Section 3, Township 4 North, Range 14 West, in the City of Hattiesburg, County of Lamar, State of Mississippi and being more particularly described as:

Commencing at a ½ Inch Rebar representing the Northeast Corner of said Section 3, thence run S89°54'16"W along the North Line of said Section for 773.35 feet to a ½ Inch Rebar representing the Northeast Corner of a Parcel of Land as per Record Deed Book 20N, Page 146 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run N89°55'36"W along said North Line for 515.33 feet to a ½ Inch Rebar representing the Northeast Corner of the Grantor's Property as per Record Deed Book 22S, Page 73 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S00°19'47"W along the East Line of said Grantor's Property for 21.05 feet to a ½ Inch Rebar representing a Point on the South Line of a Pipeline Easement as per Record Deed Book 3U, Page 15 thereof on file in the Office of the Chancery Clerk of said Lamar County and the Point of Beginning; thence continue S00°19'47"W along said East Property Line for 20.00 feet to a ½ Inch Rebar, thence run N89°49'30"W and parallel to said South Easement Line for 134.76 feet to a ½ Inch Rebar, thence run S89°51'14"W and parallel to said South Easement Line for 103.02 feet to a ½ Inch Rebar, thence run S00°20'09"W for 6.30 feet to a ½ Inch Rebar representing a Point on the North Line of a Utility Easement as per Record Deed Book 22C, Page 636 thereof on file in the Office of the Chancery Clerk of said

Initial W, \_\_\_\_\_

Wesley S. Hester  
County Tax Parcel No.: 052A-03-004.047

Lamar County, thence run S88°11'02"W along said North Easement Line for 20.01 feet to a ½ Inch Rebar representing the Intersection of said North Easement Line and the West Line of said Grantor's Property, thence run N00°20'09"E along said West Property Line for 26.89 feet to a ½ Inch Rebar representing a Point on said South Easement Line, thence run N89°51'14"E along said South Easement Line for 122.91 feet to a ½ Inch Rebar, thence run S89°49'30"E along said South Easement Line for 134.87 feet to the Point of Beginning, comprising **0.12 Acres (5,288 Square Feet)**, more or less.

**See Exhibit "A"**

The Grantee herein is given full rights to do whatever may be necessary and proper for the enjoyment of the rights granted herein, including the right of ingress and egress and the right to clear said easement of selected vegetation such as shrubs, trees, and other vegetation, change of grade, installation and/or removal of pavements and any other structure named herein or otherwise as may be necessary. Grantee will restore any damage caused by this action. Further, as part of the consideration for the rights herein conveyed, Grantee agrees to locate the utility sewage line within the 20 foot easement by boring under Grantor's driveway.

The grantor herein further warrants that the above described property is no part of his homestead.

This conveyance is made subject to any outstanding oil, gas or mineral leases and/or royalty transfers or prior reservations.

The conveyance shall be subject to any and all easements and right-of-ways of record.

It is further understood and agreed that the consideration herein named is in full, complete and final payment and settlement of any claims or demands for damage accrued, accruing, or to accrue to the grantors herein, their heirs, assigns, or legal

Initial WJH, \_\_\_\_\_

Wesley S. Hester  
County Tax Parcel No.: 052A-03-004.047

representatives, for or on account of the construction of the proposed sewage project, change of grade, water damage, and/or any other damage, right or claim whatsoever.

It is further understood and agreed that this instrument constitutes the entire agreement between the grantor and the grantee, there being no oral agreements or representations of any kind.

Witness my signature, this the 11 day of June, 2018.

Signature: [Signature]

Print Name: Wesley S. Hester

STATE OF MISSISSIPPI

COUNTY OF Lamar

Personally appeared before me, the undersigned authority in and for the said County and State, on this 11 day of June, 2018, within my jurisdiction, the within named **Wesley S. Hester**, who acknowledged before me that he signed, executed and delivered the above and foregoing instrument on the day and year therein as his own free and voluntary act and deed.

[Signature]  
NOTARY PUBLIC

(SEAL)



Initial WH, \_\_\_\_\_

Wesley S. Hester  
County Tax Parcel No.: 052A-03-004.047

State of Mississippi  
County of Lamar  
City of Hattiesburg

This is Certify that I have made a survey of the following described parcel:

A 20.00 foot wide Utility Easement being described as being a part of the North  $\frac{1}{2}$  of the Northeast  $\frac{1}{4}$  of Section 3, Township 4 North, Range 14 West, in the City of Hattiesburg, County of Lamar, State of Mississippi and being more particularly described as **Commencing** at a  $\frac{1}{2}$  Inch Rebar representing the Northeast Corner of said Section 3, thence run S89°54'16"W along the North Line of said Section for 773.35 feet to a  $\frac{1}{2}$  Inch Rebar representing the Northeast Corner of a Parcel of Land as per Record Deed Book 20N, Page 146 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run N89°55'36"W along said North Line for 515.33 feet to a  $\frac{1}{2}$  Inch Rebar representing the Northeast Corner of the Grantor's Property as per Record Deed Book 22S, Page 73 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S00°19'47"W along the East Line of said Grantor's Property for 21.05 feet to a  $\frac{1}{2}$  Inch Rebar representing a Point on the South Line of a Pipeline Easement as per Record Deed Book 3U, Page 15 thereof on file in the Office of the Chancery Clerk of said Lamar County and the **Point of Beginning**; thence continue S00°19'47"W along said East Property Line for 20.00 feet to a  $\frac{1}{2}$  Inch Rebar, thence run N89°49'30"W and parallel to said South Easement Line for 134.76 feet to a  $\frac{1}{2}$  Inch Rebar, thence run S89°51'14"W and parallel to said South Easement Line for 103.02 feet to a  $\frac{1}{2}$  Inch Rebar, thence run S00°20'09"W for 6.30 feet to a  $\frac{1}{2}$  Inch Rebar representing a Point on the North Line of a Utility Easement as per Record Deed Book 22C, Page 636 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S88°11'02"W along said North Easement Line for 20.01 feet to a  $\frac{1}{2}$  Inch Rebar representing the Intersection of said North Easement Line and the West Line of said Grantor's Property, thence run N00°20'09"E along said West Property Line for 26.89 feet to a  $\frac{1}{2}$  Inch Rebar representing a Point on said South Easement Line, thence run N89°51'14"E along said South Easement Line for 122.91 feet to a  $\frac{1}{2}$  Inch Rebar, thence run S89°49'30"E along said South Easement Line for 134.87 feet to the **Point of Beginning**, comprising **0.12 Acres (5,288 Square Feet)**, more or less.

Nicholas M. Connolly, PE, PLS  
Civil Engineer No. 12791  
Land Surveyor No. 2973



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**Grantee, prepared by and return to:**

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City of Hattiesburg

---

Department of Public Services

---

P. O. Box 1898

---

Hattiesburg, MS 39403-1898

---

**Phone:** (601) 545-4540

---

**Account No.**

---

**Grantor Address:**

---

Regina Lee

---

P. O. Box 16505

---

Hattiesburg, MS 39404

---

**Phone:**

---

**Business No.**

**PERMANENT EASEMENT**

**INDEXING INSTRUCTIONS:**

**PART OF THE NORTHEAST ¼ OF THE  
NORTHEAST ¼ OF SECTION 3, TOWNSHIP  
4 NORTH, RANGE 14 WEST, IN THE CITY  
OF HATTIESBURG, COUNTY OF LAMAR,  
STATE OF MISSISSIPPI.**

Initial \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Shows, Dearman and Waits, Inc.  
Consulting Engineers  
Project No.: COMSWIP Sewer Project Phase V  
County Tax Parcel No.: 052A-03-004.049



**THE STATE OF MISSISSIPPI**  
**COUNTY OF LAMAR**  
**CITY OF HATTIESBURG**

For and in consideration of **ONE THOUSAND EIGHT HUNDRED AND NO/100 DOLLARS (\$1,800.00)**, and other good and valuable considerations, including the benefits to be derived herefrom, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, hereby grant, bargain, sell, and convey a Permanent Easement unto the City of Hattiesburg, Mississippi, a municipal corporation, through, over, on and across the following described real property located in the City of Hattiesburg, County of Lamar, State of Mississippi:

A 20.00 foot wide Utility Easement being described as being a part of the Northeast ¼ of the Northeast ¼ of Section 3, Township 4 North, Range 14 West, in the City of Hattiesburg, County of Lamar, State of Mississippi and being more particularly described as Commencing at a ½ Inch Rebar representing the Northeast Corner of said Section 3, thence run S89°54'16"W along the North Line of said Section for 773.35 feet to a ½ Inch Rebar representing the Northeast Corner of a Parcel of Land as per Record Deed Book 20N, Page 146 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run N89°55'36"W along said North Line for 257.63 feet to the Northeast Corner of the Grantor's Property as per Record Deed Book 23W, Page 466 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S00°19'39"W along the East Line of said Grantor's Property for 21.38 feet to a ½ Inch Rebar representing a Point on the South Line of a Pipeline Easement as per Record Deed Book 3U, Page 15 thereof on file in the Office of the Chancery Clerk of said Lamar County and the Point of Beginning; thence continue S00°19'39"W along said East Property Line for 20.00 feet to a ½ Inch Rebar, thence run N89°54'19"W and parallel to said South Easement Line for 88.59 feet to a ½ Inch Rebar, thence run N89°49'30"W and parallel to said South Easement Line for 169.11 feet to a ½ Inch Rebar representing a Point on the West Line of said Grantor's Property, thence run N00°19'47"E along said West Property Line for 20.00 feet to a ½ Inch Rebar representing a Point on said South Easement Line, thence run S89°49'30"E along said South Easement Line for 169.04 feet to a ½ Inch Rebar, thence run S89°54'19"E along said South Easement Line for 88.65 feet to the Point of Beginning, comprising **0.12 Acres (5,154 Square Feet)**, more or less.

**See Exhibit "A"**

Initial \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Regina Lee  
County Tax Parcel No.: 052A-03-004.049



The Grantee herein is given full rights to do whatever may be necessary and proper for the enjoyment of the rights granted herein, including the right of ingress and egress and the right to clear said easement of selected vegetation such as shrubs, trees, and other vegetation, change of grade, installation and/or removal of pavements and any other structure named herein or otherwise as may be necessary. Grantee will restore any damage caused by this action.

The grantor herein further warrants that the above described property is no part of her homestead

This conveyance is made subject to any outstanding oil, gas or mineral leases and/or royalty transfers or prior reservations.

The conveyance shall be subject to any and all easements and right-of-ways of record.

It is further understood and agreed that the consideration herein named is in full, complete and final payment and settlement of any claims or demands for damage accrued, accruing, or to accrue to the grantors herein, their heirs, assigns, or legal representatives, for or on account of the construction of the proposed sewage project, change of grade, water damage, and/or any other damage, right or claim whatsoever.

It is further understood and agreed that this instrument constitutes the entire agreement between the grantor and the grantee, there being no oral agreements or representations of any kind.

Witness my signature, this the \_\_\_\_\_ day of \_\_\_\_\_, 2017.

**Signature:**

**Print Name:** Regina Lee



Initial \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Regina Lee  
County Tax Parcel No.: 052A-03-004.049

---

**Prepared by and return to:**

**Pittman Law Firm**

**c/o Jack H. Pittman**

**P. O. Drawer 17138**

**Hattiesburg, MS 39404**

**Grantee:**

City of Hattiesburg

Department of Public Services

P. O. Box 1898

Hattiesburg, MS 39403-1898

**Phone:** (601) 545-4540

**Account No.**

**Grantor:**

John and Krista Eye

123 J Ed Turner Drive

Hattiesburg, MS 39402

**Phone:**

**Business No.**

**PERMANENT EASEMENT**

**INDEXING INSTRUCTIONS:**

**A PART OF THE NORTHWEST ¼ OF THE  
NORTHEAST ¼ OF SECTION 3, TOWNSHIP  
4 NORTH, RANGE 14 WEST, IN THE CITY  
OF HATTIESBURG, COUNTY OF LAMAR,  
STATE OF MISSISSIPPI.**

Initial

JE, K.E.

Shows, Dearman and Waits, Inc.  
Consulting Engineers

Project No.: COMSWIP Sewer Project Phase V  
County Tax Parcel No.: 052A-03-004.048

**THE STATE OF MISSISSIPPI**

**COUNTY OF LAMAR**

**CITY OF HATTIESBURG**

For and in consideration of **ONE THOUSAND, TWO HUNDRED AND NO/100 DOLLARS (\$1,200.00)**, and other good and valuable considerations, including the benefits to be derived herefrom, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, hereby grant, bargain, sell, and convey a Permanent Easement unto the City of Hattiesburg, Mississippi, a municipal corporation, through, over, on and across the following described real property located in the City of Hattiesburg, County of Lamar, State of Mississippi:

A variable width Utility Easement being described as being a part of the Northwest  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 3, Township 4 North, Range 14 West, in the City of Hattiesburg, County of Lamar, State of Mississippi and being more particularly described as Commencing at a  $\frac{1}{2}$  Inch Rebar representing the Northeast Corner of said Section 3, thence run S89°54'16"W along the North Line of said Section for 773.35 feet to a  $\frac{1}{2}$  Inch Rebar representing the Northeast Corner of a Parcel of Land as per Record Deed Book 20N, Page 146 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run N89°55'36"W along said North Line for 515.33 feet to a  $\frac{1}{2}$  Inch Rebar representing the Northeast Corner of a Parcel of Land as per Record Deed Book 22S, Page 73 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S89°42'06"W along said North Line for 375.93 feet to a  $\frac{3}{4}$  Inch Crimp Top Pin representing the Northeast Corner of a Parcel of Land as per Record Deed Book 24I, Page 388 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S89°56'10"W along said North Line for 79.96 feet to a  $\frac{3}{4}$  Inch Crimp Top Pin representing the Northwest Corner of said Parcel, thence run S89°55'05"W along said North Line for 317.43 feet to a Point on the extension of the West Line of Grantor's Property as per Record Deed Book 23S, Page 579 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S00°19'55"W along said extension for 10.70 feet to the Northwest Corner of said Grantor's Property, thence continue S00°19'55"W along said West Property Line for 8.10 feet to a  $\frac{1}{2}$  Inch Rebar representing a Point on the South Line of a Pipeline Easement as per Record Deed Book 3U, Page 15 thereof on file in the Office of the Chancery Clerk of said Lamar County and

Initial

*JE KE*

John & Krista Eye  
County Tax Parcel No.: 052A-03-004.048

the Point of Beginning; thence run N89°35'20"E along said South Easement Line for 22.10 feet to a ½ Inch Rebar, thence run S00°12'45"E for 31.75 feet to a ½ Inch Rebar representing a Point on the North Line of a Utility Easement as per Record Deed Book 22C, Page 636 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run N89°33'05"W along said North Easement Line for 22.40 feet to a ½ Inch Rebar representing a Point on said West Property Line, thence run N00°19'55"E along said West Property Line for 31.42 feet to the Point of Beginning, comprising **0.02 Acres (703 Square Feet)**, more or less.

**See Exhibit "A"**

Grantee herein is given full rights to do whatever may be necessary and proper for the enjoyment of the rights granted herein, including the right of ingress and egress without using Grantor's concrete driveway and the right to clear said easement of selected vegetation such as shrubs, trees, and other vegetation, change of grade, installation and/or removal of pavements and any other structure named herein or otherwise as may be necessary. Grantee will restore any damage caused by this action, including leveling and landscaping affected areas to their previous condition. Further, Grantee agrees to locate the utility sewage line within the 20 foot easement by boring under Grantor's driveway.

Grantee has contacted Dixie Pipeline and made acceptable arrangements for crossing the pipeline right of way in compliance with their clearance regulations. Matting and/or gravel will be used to create the necessary protection for the pipeline.

Grantee herein agrees the final product of construction will be a manhole, level with the natural grade of the existing area.

Grantee herein will not, unless approved by Grantor in writing, install or in any way utilize electrical service or components as part of this permanent installation.

Initial

JE, K&

John & Krista Eye  
County Tax Parcel No.: 052A-03-004.048

Grantee herein will not allow any type of construction equipment to use Grantor's concrete driveway for any purpose.

Grantor herein further warrants that the above described property is no part of their homestead.

This conveyance is made subject to any outstanding oil, gas or mineral leases and/or royalty transfers or prior reservations.

The conveyance shall be subject to any and all easements and right-of-ways of record.

It is further understood and agreed that the consideration herein named is in full, complete and final payment and settlement of any claims or demands for damage accrued, accruing, or to accrue to the Grantors herein, their heirs, assigns, or legal representatives, for or on account of the construction of the proposed sewage project, change of grade, water damage, and/or any other damage, right or claim whatsoever.

It is further understood and agreed that this instrument constitutes the entire agreement between the Grantor and Grantee, there being no oral agreements or representations of any kind.

Witness our signatures, this the 4th day of June, 2018.

Signature: John Eye

Print Name: **John Eye**

Signature: Krista Eye

Print Name: **Krista Eye**

Initial JE KE

John & Krista Eye  
County Tax Parcel No.: 052A-03-004.048

STATE OF MISSISSIPPI

COUNTY OF Forest

Personally appeared before me, the undersigned authority in and for the said County and State, on this 4th day of June, 2018, within my jurisdiction, the within named **John Eye**, who acknowledged before me that he signed, executed and delivered the above and foregoing instrument on the day and year therein as his own free and voluntary act and deed.



Martha Resavy  
NOTARY PUBLIC

(SEAL)

STATE OF MISSISSIPPI

COUNTY OF Forest

Personally appeared before me, the undersigned authority in and for the said County and State, on this 4th day of June, 2018, within my jurisdiction, the within named **Krista Eye**, who acknowledged before me that she signed, executed and delivered the above and foregoing instrument on the day and year therein as her own free and voluntary act and deed.



Martha Resavy  
NOTARY PUBLIC

(SEAL)

Initial JE KE

John & Krista Eye  
County Tax Parcel No.: 052A-03-004.048



---

**Return To:****Pittman Law Firm****Attn: Jack H. Pittman****P. O. Drawer 17138****Hattiesburg, MS 39404****Grantee, prepared by and return to:**

City of Hattiesburg

Department of Public Services

P. O. Box 1898

Hattiesburg, MS 39403-1898

**Phone:** (601) 545-4540**Account No.****Grantor Address:**

Leslie Rutland

P. O. Box 2349

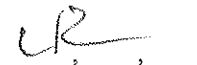
Collins, MS 39428

Lrutland@rutlandlumber.com

**Phone:****Business No.** 601-765-8892**PERMANENT EASEMENT****INDEXING INSTRUCTIONS:**

**A PART OF THE NORTHEAST ¼ OF THE  
NORTHEAST ¼ OF SECTION 3, TOWNSHIP  
4 NORTH, RANGE 14 WEST, IN THE CITY  
OF HATTIESBURG, COUNTY OF LAMAR,  
STATE OF MISSISSIPPI.**

Initial



Shows, Dearman and Waits, Inc.  
Consulting Engineers

Project No.: COMSWIP Sewer Project Phase V  
County Tax Parcel No.: 052A-03-004.046

**THE STATE OF MISSISSIPPI**  
**COUNTY OF LAMAR**  
**CITY OF HATTIESBURG**

For and in consideration OF **SIX THOUSAND AND NO/100 DOLLARS (\$6,000.00)**, and other good and valuable considerations, including the benefits to be derived herefrom, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, hereby grant, bargain, sell, and convey a Permanent Easement unto the City of Hattiesburg, Mississippi, a municipal corporation, through, over, on and across the following described real property located in the City of Hattiesburg, County of Lamar, State of Mississippi:

A 20.00 foot wide Utility Easement being described as being a part of the Northeast ¼ of the Northeast ¼ of Section 3, Township 4 North, Range 14 West, in the City of Hattiesburg, County of Lamar, State of Mississippi and being more particularly described as Commencing at a ½ Inch Rebar representing the Northeast Corner of said Section 3, thence run S89°54'16"W along the North Line of said Section for 155.99 feet to a ½ Inch Rebar representing the Point of Beginning; thence run S13°06'33"E for 28.08 feet to a ½ Inch Rebar, thence run South for 17.57 feet to a ½ Inch Rebar, thence run N89°35'32"W for 173.52 feet to a ½ Inch Rebar, thence run N89°50'02"W for 347.23 feet to a ½ Inch Rebar, thence run N89°54'19"W for 103.21 feet to ½ Inch Rebar representing a Point on the West Line of the Grantor's Property as per Record Deed Book 23B, Page 144 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run N00°19'15"E along said West Property Line for 20.00 feet to a ½ Inch Rebar representing a Point on the South Line of a Pipeline Easement as per Record Deed Book 3U, Page 15 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run S89°54'19"E along said South Easement Line for 103.15 feet to a ½ Inch Rebar, thence run S89°50'02"E along said South Easement Line for 347.29 feet to a ½ Inch Rebar, thence run S89°35'32"E along said South Easement Line for 152.29 feet to a ½ Inch Rebar, thence run N13°06'33"W for 25.39 feet to a ½ Inch Rebar representing a Point on said North Section Line, thence run N89°54'16"E along said North Section Line for 20.53 feet to the Point of Beginning, comprising **0.30 Acres (12,987 Square Feet)**, more or less.

**See Exhibit "A"**

The Grantee herein is given full rights to do whatever may be necessary and proper for the enjoyment of the rights granted herein, including the right of ingress and

Initial LR

Leslie Rutland  
County Tax Parcel No.: 052A-03-004.046

egress and the right to clear said easement of selected vegetation such as shrubs, trees, and other vegetation, change of grade, installation and/or removal of pavements and any other structure named herein or otherwise as may be necessary. Grantee will restore any damage caused by this action. Further, as part of the consideration for the rights herein conveyed, Grantee agrees to locate the utility sewage line within the 20 foot easement by boring under Grantor's driveway.

The grantor herein further warrants that the above described property is no part of his homestead

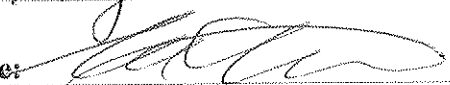
This conveyance is made subject to any outstanding oil, gas or mineral leases and/or royalty transfers or prior reservations.

The conveyance shall be subject to any and all easements and right-of-ways of record.

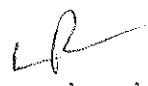
It is further understood and agreed that the consideration herein named is in full, complete and final payment and settlement of any claims or demands for damage accrued, accruing, or to accrue to the grantors herein, their heirs, assigns, or legal representatives, for or on account of the construction of the proposed sewage project, change of grade, water damage, and/or any other damage, right or claim whatsoever.

It is further understood and agreed that this instrument constitutes the entire agreement between the grantor and the grantee, there being no oral agreements or representations of any kind.

Witness my signature, this the 29 day of May, 2018.

Signature: 

Print Name: **Leslie Rutland**

Initial  \_\_\_\_\_

Leslie Rutland  
County Tax Parcel No.: 052A-03-004.046

STATE OF MISSISSIPPI

COUNTY OF COVINGTON

Personally appeared before me, the undersigned authority in and for the said County and State, on this 29<sup>th</sup> day of May, 2018, within my jurisdiction, the within named **Leslie Rutland**, who acknowledged before me that he signed, executed and delivered the above and foregoing instrument on the day and year therein as his own free and voluntary act and deed.

Mary W. Davis  
NOTARY PUBLIC

(SEAL)



Initial LR, \_\_\_\_\_

Leslie Rutland  
County Tax Parcel No.: 052A-03-004.046



State of Mississippi  
County of Lamar  
City of Hattiesburg

This is Certify that I have made a survey of the following described parcel:

A 20.00 foot wide Utility Easement being described as being a part of the Northeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 3, Township 4 North, Range 14 West, in the City of Hattiesburg, County of Lamar, State of Mississippi and being more particularly described as **Commencing** at a  $\frac{1}{2}$  Inch Rebar representing the Northeast Corner of said Section 3, thence run  $S89^{\circ}54'16''W$  along the North Line of said Section for 155.99 feet to a  $\frac{1}{2}$  Inch Rebar representing the **Point of Beginning**; thence run  $S13^{\circ}06'33''E$  for 28.08 feet to a  $\frac{1}{2}$  Inch Rebar, thence run South for 17.57 feet to a  $\frac{1}{2}$  Inch Rebar, thence run  $N89^{\circ}35'32''W$  for 173.52 feet to a  $\frac{1}{2}$  Inch Rebar, thence run  $N89^{\circ}50'02''W$  for 347.23 feet to a  $\frac{1}{2}$  Inch Rebar, thence run  $N89^{\circ}54'19''W$  for 103.21 feet to  $\frac{1}{2}$  Inch Rebar representing a Point on the West Line of the Grantor's Property as per Record Deed Book 23B, Page 144 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run  $N00^{\circ}19'15''E$  along said West Property Line for 20.00 feet to a  $\frac{1}{2}$  Inch Rebar representing a Point on the South Line of a Pipeline Easement as per Record Deed Book 3U, Page 15 thereof on file in the Office of the Chancery Clerk of said Lamar County, thence run  $S89^{\circ}54'19''E$  along said South Easement Line for 103.15 feet to a  $\frac{1}{2}$  Inch Rebar, thence run  $S89^{\circ}50'02''E$  along said South Easement Line for 347.29 feet to a  $\frac{1}{2}$  Inch Rebar, thence run  $S89^{\circ}35'32''E$  along said South Easement Line for 152.29 feet to a  $\frac{1}{2}$  Inch Rebar, thence run  $N13^{\circ}06'33''W$  for 25.39 feet to a  $\frac{1}{2}$  Inch Rebar representing a Point on said North Section Line, thence run  $N89^{\circ}54'16''E$  along said North Section Line for 20.53 feet to the **Point of Beginning**, comprising **0.30 Acres (12,987 Square Feet)**, more or less.

Nicholas M. Connolly, PE, PLS  
Civil Engineer No. 12791  
Land Surveyor No. 2973



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-572**

**File ID:** 2018-572

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Lamar Rutland

**File Created:** 06/22/2018

**Brief Title:** Approve plans and specifications for the Reconstruction of N. 31st Avenue and Alley Project (No. DECD-0018(34)BO); Authorize Advertisement for bids for same.

**Final Action:**

**Minute Book Number:** MB2018-172

**Title:**

Approve plans and specifications for the Reconstruction of N. 31st Avenue and Alley Project (No. DECD-0018(34)BO); Authorize Advertisement for bids for same.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VII.-6

**Sponsors:**

**Enactment Date:**

**Attachments:** SECTION 900 31ST AVE - Advertisement, Specs Complete, FINAL SETW STANDARDS.pdf

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Sharon Waits

**Effective Date:**

## History of Legislative File

| Ver-<br>sion: | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council | 07/03/2018 |         |          |           |                 |         |

## Text of Legislative File 2018-572

### Title

Approve plans and specifications for the Reconstruction of N. 31st Avenue and Alley Project (No. DECD-0018(34)BO); Authorize Advertisement for bids for same.

### Summary

Approve plans and specifications for the Reconstruction of N. 31st Avenue and Alley Project (No. DECD-0018(34)BO); Authorize Advertisement for bids for same.

**Budget Information**

072201.7230.18

**Expenditure Type**

MDA Grant

**Publication Information**

Published by Consultants 7/8 & 7/15



OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
AND  
THE CITY OF HATTIESBURG

SECTION 900

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NOTICE TO CONTRACTORS:

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Sealed bids will be received by the City of Hattiesburg, Mississippi at the Hattiesburg City Hall, until 10:00 am on the 9th day of August, 2018 and shortly thereafter publicly opened for the construction of 0.146 miles of RECONSTRUCTION on the 31 ST AVENUE AND ALLEY being known as Project No. DECD-0018(34)B0 in the City of Hattiesburg, Mississippi.

PRINCIPAL ITEMS OF WORK ARE APPROXIMATELY AS FOLLOWS:

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| ITEM                                                              | QUANTITY | UNIT |
|-------------------------------------------------------------------|----------|------|
| <hr/>                                                             |          |      |
| ROADWAY ITEMS:                                                    |          |      |
| <hr/>                                                             |          |      |
| MOBILIZATION                                                      | LUMP SUM | LS   |
| CLEARING AND GRUBBING                                             | LUMP SUM | LS   |
| REMOVAL OF OBSTRUCTIONS                                           | LUMP SUM | LS   |
| REMOVAL OF INLETS, ALL SIZES                                      | 9.000    | UN   |
| REMOVAL OF CURBS, ALL TYPES                                       | 405.000  | LF   |
| REMOVAL OF ASPHALT PAVEMENT,<br>ALL DEPTHS                        | 829.000  | SY   |
| REMOVAL OF CONCRETE PAVEMENT AND<br>SIDEWALKS, ALL DEPTHS         | 276.000  | SY   |
| REMOVAL OF PIPE (ALL SIZES)                                       | 494.000  | LF   |
| UNCLASSIFIED EXCAVATION (FM)                                      | 43.000   | CY   |
| BORROW EXCAVATION (F.M.E.)<br>(CONTRACTOR FURNISHED) (CLASS B7-6) | 4.000    | CY   |
| STRUCTURE EXCAVATION                                              | 974.000  | CY   |
| CRUSHED STONE SIZE 610 (FM)                                       | 236.000  | CY   |
| HOT MIX ASPHALT, MT, 9.5-MM<br>MIXTURE                            | 343.000  | TON  |
| HOT MIX ASPHALT, MT. 25-MM MIXTURE,<br>TRENCH WIDENING            | 271.000  | TON  |
| COLD MILLING OF BITUMINOUS<br>PAVEMENT, ALL DEPTHS                | 676.000  | SY   |

SECTION 900  
PROJECT NO. DECD-0018(34)B0  
CITY OF HATTIESBURG

|                                                                         |           |     |
|-------------------------------------------------------------------------|-----------|-----|
| ASPHALT FOR TACK COAT,<br>EA-1                                          | 791.000   | GAL |
| ASPHALT FOR PRIME COAT<br>EA-1                                          | 245.000   | GAL |
| CLASS "B" STRUCTURAL CONCRETE,<br>MINOR STRUCTURES                      | 52.000    | CY  |
| REINFORCING STEEL                                                       | 7,298.000 | LB  |
| 15" REINFORCED CONCRETE PIPE,<br>CLASS III                              | 24.000    | LF  |
| 22" X 13" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 60.000    | LF  |
| 29" X 18" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 17.000    | LF  |
| 44" X 27" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 103.000   | LF  |
| 58" X 36" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 459.000   | LF  |
| 15" BRANCH CONNECTION INTO 58"X36"<br>RCAP                              | 1.000     | EA  |
| 22"X13" BRANCH CONNECTION INTO 58"x<br>36" RCAP                         | 1.000     | EA  |
| CASTINGS                                                                | 455.000   | LB  |
| GRATINGS                                                                | 1,515.000 | LB  |
| CONCRETE CURB, TYPE HEADER                                              | 153.000   | LF  |
| COMBINATION CONCRETE                                                    | 1,858.000 | LF  |
| CURB AND GUTTER, TYPE I MODIFIED                                        |           |     |
| ADJUSTMENT OF MANHOLES                                                  | 4.000     | UN  |
| CONCRETE ISLAND PAVEMENT                                                | 13.000    | SY  |
| MAINTENANCE OF TRAFFIC                                                  | LUMP SUM  | LS  |
| ADDITIONAL CONSTRUCTION SIGNS                                           | 0.000     | SF  |
| 4" WIDE THERMOPLASTIC TRAFFIC<br>STRIPE (CONTINUOUS WHITE) (90 MIL)     | 0.011     | MI  |
| 4" WIDE THERMOPLASTIC TRAFFIC<br>STRIPE (CONTINUOUS YELLOW)<br>(90 MIL) | 0.052     | MI  |
| THERMOPLASTIC LEGEND<br>WHITE) (120 MIL)                                | 664.000   | SF  |
| REFLECTORIZED TRAFFIC WARNING SIGN<br>(ENCAPSULATED LENS)               | 4.000     | EA  |
| REFLECTORIZED TRAFFIC REGULATORY<br>SIGN (ENCAPSULATED LENS)            | 2.000     | EA  |
| EROSION CONTROL ITEMS:                                                  |           |     |
| <hr/>                                                                   |           |     |
| TEMPORARY SILT FENCE<br>TYPE V) (AOS 0.21-0.43)                         | 500.000   | LF  |

SECTION 900  
PROJECT NO. DECD-0018(34)B0  
CITY OF HATTIESBURG

LANDSCAPING ITEMS:

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|                                                        |           |     |
|--------------------------------------------------------|-----------|-----|
| TOPSOIL FOR PLANT HOLES, CONTRACTOR<br>FURNISHED       | 190.000   | CY  |
| STANDARD GROUND PREPARATION                            | 725.000   | SY  |
| SOLID SODDING, TIFWAY 419                              | 725.000   | SY  |
| HYBRID BERMUDA                                         |           |     |
| WATERING                                               | 70.000    | KGL |
| SHRUB PLANTING, DWARF YUPON HOLLY                      | 4.000     | EA  |
| SHRUB PLANTING, PARSON JUNIPER                         | 27.000    | EA  |
| SHRUB PLANTING, SUPER BLUE LIRIOPE                     | 1,053.000 | EA  |
| TREE PLANTING, KV PURPLE PLUM                          | 14.000    | EA  |
| TREE PLANTING, LIVE OAK                                | 8.000     | EA  |
| TREE PLANTING, SIOUX CREPE MYRTLE                      | 20.000    | EA  |
| BED PREPARATION                                        | 2,400.000 | SF  |
| FERTILIZER FOR WOODY PLANT MATERIAL<br>TABLET, 10 GRAM | 1.000     | K   |
| FERTILIZER FOR WOODY PLANT MATERIAL<br>TABLET, 21 GRAM | 2.000     | K   |
| TREE BARK MULCH                                        | 18.000    | CY  |
| PINE STRAW MULCH, BALE                                 | 75.000    | BA  |
| REMOVE AND RELOCATE POP-UP<br>SPRINKLER HEAD           | 30.000    | EA  |
| CONCRETE SIDEWALK<br>WITHOUT REINFORCEMENT             | 216.000   | SY  |

LIGHTING ITEMS:

---

|                                                                  |         |    |
|------------------------------------------------------------------|---------|----|
| UNDERGROUND BRANCH CIRCUIT, AWG10,<br>3 CONDUCTOR                | 345.000 | LF |
| UNDERGROUND BRANCH CIRCUIT, AWG10,<br>3 CONDUCTOR (JACK OR BORE) | 160.000 | LF |
| LIGHTING ASSEMBLY, LOW MAST,<br>22-6-2-250 PER PLANS             | 4.000   | EA |
| POLE FOUNDATION, 24" DIAMETER                                    | 3.760   | CY |

SECTION 900  
PROJECT NO. DECD-0018(34)B0  
CITY OF HATTIESBURG

NOTICE TO CONTRACTORS:

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CONTRACT TIME: 180 Working Days

BASIS OF AWARD

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The award, if made, will be made to the lowest qualified bidder on the basis of published quantities.

The City hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprise will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

PLANS AND SPECIFICATIONS are on file in the Office of the City Clerk of the City of Hattiesburg, the Consulting Engineer's office and the Office of the State Aid Engineer, 412 E. Woodrow Wilson Avenue, Jackson, Mississippi. This project shall be constructed in accordance with the latest edition of the Mississippi Standard Specifications for State Aid Road and Bridge Construction.

PLANS AND PROPOSALS can be downloaded from Central Bidding at [www.centralbidding.com](http://www.centralbidding.com). Electronic bids can be submitted at [www.centralbidding.com](http://www.centralbidding.com). For questions relating to the electronic bidding process, please call Central Bidding at 225-810-4814. All bids must be accompanied by bid security equal to 5% of the amount of the bid, in the form of a certified check, cashier's check or a bid bond written by a company properly licensed in Mississippi, made payable to the City of Hattiesburg and the State of Mississippi.

Bidders are hereby notified that any proposal accompanied by letters qualifying in any manner the condition under which the proposal is tendered will be considered an irregular bid and such proposal will not be considered in making the award.

Toby Barker, Mayor

City of Hattiesburg

# Office of State Aid Road Construction

Jackson, Mississippi

and

~~Board of Supervisors~~

CITY COUNCIL

CITY OF HATTIESBURG, MS ~~County~~

## PROPOSAL AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF



State Aid - Federal Aid Project No. (Strike out if no Federal Funds Involved) DECD-0018(34)60

Being a Section of ~~County Road~~ 31<sup>ST</sup> AVENUE AND ALLEY

~~On Route No.~~ \_\_\_\_\_

In HATTIESBURG, MS County FOURTEENTH

Type of Construction REBUILD

Net Length 0.146 Miles \_\_\_\_\_

Gross Length 0.146 Miles \_\_\_\_\_ Contract Time 180 Working Days

By \_\_\_\_\_

Address \_\_\_\_\_

Surety \_\_\_\_\_

### Note

Standard Specifications for State Aid Road and Bridge Construction currently approved by the Office of State Aid Road Construction and the Federal Highway Administration are made a part hereof fully and completely as if attached hereto, except where superseded by the Special Provisions, or amended by revisions.

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**STATE AID PROJECT NO. DECD-0018(34)BO  
FORREST COUNTY**

**MISSISSIPPI STANDARD SPECIFICATION FOR STATE AID ROAD AND BRIDGE  
CONSTRUCTION, 2004 EDITION  
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| Notice To Bidders No. 2                    | High Voltage Overhead Lines                                                                                                  |
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| Notice To Bidders No. 6                    | Petroleum Products Base Prices for Contract                                                                                  |
| Notice To Bidders No. 7                    | Payments to Subcontractors (With OCR-484-SA)                                                                                 |
| Notice To Bidders No. 8 (Rev. 11-08-2011)  | Errata and Modifications to the 2004 Edition of the<br>Standard Specifications for State Aid Road and Bridge<br>Construction |
| Notice To Bidders No. 10                   | Monthly Estimate Retainage                                                                                                   |
| Notice To Bidders No. 11 (Rev. 11-19-2009) | Certification of 100% of Payment To Subcontractor                                                                            |
| Notice To Bidders No. 16                   | Safety Apparel                                                                                                               |
| SS 901-S-102-1                             | Bid Bond Agent                                                                                                               |
| SS 901-S-103-1                             | Contract Bond Agent or Liability Insurance Agent                                                                             |
| SS 901-S-104-1                             | Removal and Disposal of Structures and Obstructions                                                                          |
| SS 901-S-107-2                             | Material Pits and Quarries                                                                                                   |
| SS 901-S-107-3                             | Permits, Licenses and Taxes                                                                                                  |
| SP 901-S-618-1                             | Supplement To Traffic Control Plan                                                                                           |
| SS 901-S-701-2                             | Portland Cement                                                                                                              |
| SS 901-S-708-1                             | Non-METAL Drainage Structures                                                                                                |
| SS 901-S-714-1                             | Geotextile Certification                                                                                                     |
| SS 901-S-714-2                             | Miscellaneous Materials                                                                                                      |
| SS 901-S-804-1                             | Concrete Bridges And Structures                                                                                              |
| Form SAA-1                                 | Non-Collusion Affidavit                                                                                                      |
| EEV Certification (Rev. 06-12)             | Mississippi Employment Protection Act Compliance                                                                             |
| Section 902                                | Proposal                                                                                                                     |
| Section 903 (Rev. 03-11-2010)              | Contract                                                                                                                     |
| Section 904 (Rev. 03-11-2010)              | Contract Bond                                                                                                                |

OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
AND  
THE CITY OF HATTIESBURG

SECTION 900

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NOTICE TO CONTRACTORS:

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Sealed bids will be received by the City of Hattiesburg, Mississippi at the Hattiesburg City Hall, until 10:00 am on the 9th day of August, 2018 and shortly thereafter publicly opened for the construction of 0.146 miles of RECONSTRUCTION on the 31 ST AVENUE AND ALLEY being known as Project No. DECD-0018(34)B0 in the City of Hattiesburg, Mississippi.

PRINCIPAL ITEMS OF WORK ARE APPROXIMATELY AS FOLLOWS:

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| ITEM                                                              | QUANTITY | UNIT |
|-------------------------------------------------------------------|----------|------|
| <hr/>                                                             |          |      |
| ROADWAY ITEMS:                                                    |          |      |
| <hr/>                                                             |          |      |
| MOBILIZATION                                                      | LUMP SUM | LS   |
| CLEARING AND GRUBBING                                             | LUMP SUM | LS   |
| REMOVAL OF OBSTRUCTIONS                                           | LUMP SUM | LS   |
| REMOVAL OF INLETS, ALL SIZES                                      | 9.000    | UN   |
| REMOVAL OF CURBS, ALL TYPES                                       | 405.000  | LF   |
| REMOVAL OF ASPHALT PAVEMENT,<br>ALL DEPTHS                        | 829.000  | SY   |
| REMOVAL OF CONCRETE PAVEMENT AND<br>SIDEWALKS, ALL DEPTHS         | 276.000  | SY   |
| REMOVAL OF PIPE (ALL SIZES)                                       | 494.000  | LF   |
| UNCLASSIFIED EXCAVATION (FM)                                      | 43.000   | CY   |
| BORROW EXCAVATION (F.M.E.)<br>(CONTRACTOR FURNISHED) (CLASS B7-6) | 4.000    | CY   |
| STRUCTURE EXCAVATION                                              | 974.000  | CY   |
| CRUSHED STONE SIZE 610 (FM)                                       | 236.000  | CY   |
| HOT MIX ASPHALT, MT, 9.5-MM<br>MIXTURE                            | 343.000  | TON  |
| HOT MIX ASPHALT, MT. 25-MM MIXTURE,<br>TRENCH WIDENING            | 271.000  | TON  |
| COLD MILLING OF BITUMINOUS<br>PAVEMENT, ALL DEPTHS                | 676.000  | SY   |

SECTION 900  
PROJECT NO. DECD-0018(34)B0  
CITY OF HATTIESBURG

|                                                                         |           |     |
|-------------------------------------------------------------------------|-----------|-----|
| ASPHALT FOR TACK COAT,<br>EA-1                                          | 791.000   | GAL |
| ASPHALT FOR PRIME COAT<br>EA-1                                          | 245.000   | GAL |
| CLASS "B" STRUCTURAL CONCRETE,<br>MINOR STRUCTURES                      | 52.000    | CY  |
| REINFORCING STEEL                                                       | 7,298.000 | LB  |
| 15" REINFORCED CONCRETE PIPE,<br>CLASS III                              | 24.000    | LF  |
| 22" X 13" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 60.000    | LF  |
| 29" X 18" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 17.000    | LF  |
| 44" X 27" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 103.000   | LF  |
| 58" X 36" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 459.000   | LF  |
| 15" BRANCH CONNECTION INTO 58"X36"<br>RCAP                              | 1.000     | EA  |
| 22"X13" BRANCH CONNECTION INTO 58"x<br>36" RCAP                         | 1.000     | EA  |
| CASTINGS                                                                | 455.000   | LB  |
| GRATINGS                                                                | 1,515.000 | LB  |
| CONCRETE CURB, TYPE HEADER                                              | 153.000   | LF  |
| COMBINATION CONCRETE<br>CURB AND GUTTER, TYPE I MODIFIED                | 1,858.000 | LF  |
| ADJUSTMENT OF MANHOLES                                                  | 4.000     | UN  |
| CONCRETE ISLAND PAVEMENT                                                | 13.000    | SY  |
| MAINTENANCE OF TRAFFIC<br>ADDITIONAL CONSTRUCTION SIGNS                 | LUMP SUM  | LS  |
| 4" WIDE THERMOPLASTIC TRAFFIC<br>STRIPE (CONTINUOUS WHITE) (90 MIL)     | 0.000     | SF  |
| 4" WIDE THERMOPLASTIC TRAFFIC<br>STRIPE (CONTINUOUS YELLOW)<br>(90 MIL) | 0.011     | MI  |
| THERMOPLASTIC LEGEND<br>WHITE) (120 MIL)                                | 0.052     | MI  |
| REFLECTORIZED TRAFFIC WARNING SIGN<br>(ENCAPSULATED LENS)               | 664.000   | SF  |
| REFLECTORIZED TRAFFIC REGULATORY<br>SIGN (ENCAPSULATED LENS)            | 4.000     | EA  |
|                                                                         | 2.000     | EA  |
| EROSION CONTROL ITEMS:                                                  |           |     |
| <hr/>                                                                   |           |     |
| TEMPORARY SILT FENCE<br>TYPE V) (AOS 0.21-0.43)                         | 500.000   | LF  |



SECTION 900  
PROJECT NO. DECD-0018(34)B0  
CITY OF HATTIESBURG

LANDSCAPING ITEMS:

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|                                                        |           |     |
|--------------------------------------------------------|-----------|-----|
| TOPSOIL FOR PLANT HOLES, CONTRACTOR<br>FURNISHED       | 190.000   | CY  |
| STANDARD GROUND PREPARATION                            | 725.000   | SY  |
| SOLID SODDING, TIFWAY 419                              | 725.000   | SY  |
| HYBRID BERMUDA                                         |           |     |
| WATERING                                               | 70.000    | KGL |
| SHRUB PLANTING, DWARF YUPON HOLLY                      | 4.000     | EA  |
| SHRUB PLANTING, PARSON JUNIPER                         | 27.000    | EA  |
| SHRUB PLANTING, SUPER BLUE LIRIOPE                     | 1,053.000 | EA  |
| TREE PLANTING, KV PURPLE PLUM                          | 14.000    | EA  |
| TREE PLANTING, LIVE OAK                                | 8.000     | EA  |
| TREE PLANTING, SIOUX CREPE MYRTLE                      | 20.000    | EA  |
| BED PREPARATION                                        | 2,400.000 | SF  |
| FERTILIZER FOR WOODY PLANT MATERIAL<br>TABLET, 10 GRAM | 1.000     | K   |
| FERTILIZER FOR WOODY PLANT MATERIAL<br>TABLET, 21 GRAM | 2.000     | K   |
| TREE BARK MULCH                                        | 18.000    | CY  |
| PINE STRAW MULCH, BALE                                 | 75.000    | BA  |
| REMOVE AND RELOCATE POP-UP<br>SPRINKLER HEAD           | 30.000    | EA  |
| CONCRETE SIDEWALK<br>WITHOUT REINFORCEMENT             | 216.000   | SY  |

LIGHTING ITEMS:

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|                                                                  |         |    |
|------------------------------------------------------------------|---------|----|
| UNDERGROUND BRANCH CIRCUIT, AWG10,<br>3 CONDUCTOR                | 345.000 | LF |
| UNDERGROUND BRANCH CIRCUIT, AWG10,<br>3 CONDUCTOR (JACK OR BORE) | 160.000 | LF |
| LIGHTING ASSEMBLY, LOW MAST,<br>22-6-2-250 PER PLANS             | 4.000   | EA |
| POLE FOUNDATION, 24" DIAMETER                                    | 3.760   | CY |

SECTION 900  
PROJECT NO. DECD-0018(34)B0  
CITY OF HATTIESBURG

NOTICE TO CONTRACTORS:

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CONTRACT TIME: 180 Working Days

BASIS OF AWARD

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The award, if made, will be made to the lowest qualified bidder on the basis of published quantities.

The City hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprise will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

PLANS AND SPECIFICATIONS are on file in the Office of the City Clerk of the City of Hattiesburg, the Consulting Engineer's office and the Office of the State Aid Engineer, 412 E. Woodrow Wilson Avenue, Jackson, Mississippi. This project shall be constructed in accordance with the latest edition of the Mississippi Standard Specifications for State Aid Road and Bridge Construction.

PLANS AND PROPOSALS can be downloaded from Central Bidding at [www.centralbidding.com](http://www.centralbidding.com). Electronic bids can be submitted at [www.centralbidding.com](http://www.centralbidding.com). For questions relating to the electronic bidding process, please call Central Bidding at 225-810-4814. All bids must be accompanied by bid security equal to 5% of the amount of the bid, in the form of a certified check, cashier's check or a bid bond written by a company properly licensed in Mississippi, made payable to the City of Hattiesburg and the State of Mississippi.

Bidders are hereby notified that any proposal accompanied by letters qualifying in any manner the condition under which the proposal is tendered will be considered an irregular bid and such proposal will not be considered in making the award.

Toby Barker, Mayor

City of Hattiesburg

## SPECIAL NOTICE TO BIDDERS

### CONSTRUCTION SAFETY AND HEALTH STANDARDS

It is a condition of this contract, and shall be make a condition of each subcontract entered into pursuant to this contract, that the contractor and any subcontractor shall not require any laborer or mechanic employed in performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety, as determined under the following Federal regulations:

1. (a) Occupational Safety and Health Standards, Department of Labor,  
Occupational Safety and Health Administration, Federal Register of October 18,  
1972, pages 22102 to 22356.  
  
(b) General Industry Guide for Applying Safety and Health Standards, OSHA  
Publication No. 2072, U. S. Department of Labor, Occupational Safety and Health  
Administration.
2. Safety and Health Regulations for Construction, Department of Labor,  
Occupational Safety and Health Administration, Federal Register of December 16,  
1972, pages 27503 to 27600.
3. Safety and Health Standards for Maritime Employment, Department of Labor,  
Occupational Safety and Health Administration, Federal Register of October 19,  
1972, pages 22458 to 22564.

SPECIAL NOTICE TO BIDDERS

UNIVERSITY OF SOUTHERN MISSISSIPPI SPECIAL CONDITIONS

PART 1 UNIVERSITY OF SOUTHERN MISSISSIPPI SPECIAL CONDITIONS

This Section must be included in Division 1 of the Specifications for all construction projects conducted on the campus of The University of Southern Mississippi in Hattiesburg, MS.

GENERAL

1.01 DISPOSAL OF CONSTRUCTION MATERIALS

- A. Contractors are expected to provide sufficient construction dumpsters and/or trash containers to use in conjunction with disposal of construction debris. Use of University-owned site furnishings, custodial containers and/or dumpsters is expressly prohibited.
- B. Contractors are specifically advised to schedule timely emptying of dumpsters to suit specific project needs and to be aware that dumpster services are generally unavailable on weekends.
- C. From the very start of the Work, until entire completion of the building, the Contractor shall keep on hand an adequate crew of laborers, or others to keep the entire building and surrounding streets, sidewalks, alleys, etc., free from any dirt, rubbish and other debris resulting from the execution of this contract. It is the intent of this paragraph to remove bulky debris such as crafting material, etc., brought onto the job and left by other contractors.
- D. It shall be the responsibility of each individual prime contractor to remove all unwanted materials from the building and the site each day. Job sites are to be cleaned up on a daily basis, including construction debris and litter generated by workers. At all times, the site of the work shall present a neat, orderly and workmanlike appearance.
- E. Disposal of reasonable amounts of recyclable construction materials (steel, glass, cardboard, concrete, etc.) may be coordinated through the University's project coordinator assigned to the project. Unless specific arrangements are made in advance with the designated Project Manager, contractors are prohibited from using University-owned recycling bins and are expected to remove all recyclables from the job site.
- F. To reduce urban stormwater pollution and comply with requirements of the United States Environmental Protection Agency, all contractors and subcontractors are expressly prohibited from the disposal of paints, solvents, clean-up materials and similar products into gutters, sewers, drains, pipes or sinks located anywhere on campus.
- G. Through special arrangement with a project manager, painting subcontractors may on occasion be directed to use the University's disposal areas for clean-up following work performed. These areas are located in the paint shop of USM's Physical Plant compound on the west side of Building 615 (red brick building located at 3101 West 4th Street).

1.02 USE OF PREMISES AND DAMAGE TO PREMISES

- A. All material and equipment shall be brought onto the site by making use of such roadways and drives as designated by the University and across the grounds along routes established by the University.
- B. Should road closures, sidewalk closures, utility shut-downs, etc., be required during the course of construction, contractors are expected to provide a minimum of 36 hours advance notice to make suitable arrangements. The same advance notice is required for similar items which require coordination with the University Police, Fire/Safety, Parking Management, Office of Disability Accommodations or similar campus personnel.
- C. Any streets, roadways, sidewalks, grounds, plantings, trees or other property that may be damaged as a result of the contract work shall be properly repaired or fully replaced by the Contractor to the full satisfaction of all interests involved. The contractor's final payment may be held until equivalent compensation is received.
- D. No more space than is absolutely necessary will be permitted to be used on the grounds immediately around the construction site, and the contractor must use every care against damage to the grounds. Upon completion of the project, the entire site shall be restored to the conditions as delivered to the Contractor with the Notice to Proceed.

1.03 DESIGNATED STORAGE AND WORKING AREAS

- A. The exact boundaries of the area which may be used by the General Contractor and Subcontractors for the storage of materials and as a working area will be designated by the Architect / Engineer and University as defined on the contract documents. The Contractor must confine his operations and provide within the designated area space for all Subcontractors.
- B. Trees and planting within the work area shall be protected at all times. There shall be no trimming of trees or bushes without permission from the University.
- C. At no time will vehicular parking or storage of materials be allowed under trees or on top of tree roots. Damaged areas may require repairs or replacement of shrubs and trees. The Contractor shall be responsible for trees, shrubs, ground cover or sod damaged during construction.
- D. Any damage to the above within the designated area or storage area shall be repaired by the Contractor and left on completion either in the same state as found to exist at the start of the work or as shown on the contract documents.
- E. Recovery of damages may include repairs or replacement of sod, shrubs, trees, sidewalks, driveways, curbs, etc. In order to be consistent with the University's Campus Landscape Standards, the required species of replacement sod is "Tifway 419 Hybrid Bermuda" or as otherwise directed by University groundskeeping personnel.
- F. The contractor's final payment may be withheld until site restoration is accepted.

1.04 DESIGNATED PARKING AREAS

- A. If sufficient parking area is not available within the designated storage and working area for the vehicles of workmen employed on the building, the Contractor shall require workmen to park their vehicles in areas designated by the Architect / Engineer and

University. Workmen failing to comply with traffic and parking regulations of the University shall be removed from the job at the request of the proper University officials. Vehicles of any General Contractor or Subcontractor must display an official University "Hanging Parking Tag" (if vehicle does not have company signage).

- B. At no time will contractors be permitted to park in handicapped parking spaces or service zones. Vehicles parked in these areas are subject to being booted or towed and owners of vehicles will be ticketed and fined.
- C. Contractors and subcontractors must register for parking permits. Policy revisions dating from August 2014 pertain specifically to contractors and subcontractors. These can be found in the 2014-15 "Traffic and Parking Regulations", Paragraph 2, Subparagraphs 2.17 and 2.19), partially excerpted below:

"2.17 All contractors are required to obtain parking permits for their employees' privately owned vehicles if the employee is parking on campus. This requirement does not apply to company-owned vehicles. Companies shall submit a letter (mail or fax) to the Department of Parking Management requesting the number of parking permits needed. Parking permits will be issued to the individual. Contractor employees who bring privately owned vehicles to campus are expected to abide by and follow the University parking regulations (see General Information)."

- D. Along with the company letter, a registration form will need to be completed and submitted to the Department of Parking Management. Accepted forms of payment are cash, Visa or MasterCard.
- E. PLEASE NOTE: The cost of the Contractor / Vendor parking permits are \$75 each and are to be borne by the general contractor, subcontractor or vendor.
- F. Further information is available on the USM Department of Parking Management's website ([www.usm.edu/parking](http://www.usm.edu/parking)).

#### 1.05 NON-INTERFERENCE

- A. The Contractor will manage the work of this contract in such a manner as to not unnecessarily interfere with normal University operations. The Contractor expressly undertakes at his own expense to comply with the regulations governing the operations of premises which are occupied and to perform his contract in such a manner as not to interrupt or interfere with the operation of the University and to perform after working hours, or on Sunday, or regular holidays without additional expense to the University, any work necessary to comply with this stipulation.
- B. During normal working hours, all building entrances and exits shall remain open at all times.
- C. The work site shall present a neat, orderly and workmanlike appearance at all times.

#### 1.06 SPECIAL REGULATIONS

- A. All contractors are expected to comply with the University's e-Verify requirements.
- B. The University will not be responsible for the safety of the Contractor's work, materials or equipment.

- C. Protection of the property within the contract work area both day and night shall be the responsibility of the Contractor.
- D. Due to the nature of certain University projects, employees of the General Contractor and their Subcontractors may be subject to criminal background checks at any time during the term of the contract. Only employees who must enter or work in restricted areas will be checked. Instances are expected to be incidental rather than routine and will be at the discretion of the Director of the Physical Plant. The cost of background checks (approximately \$15 each) will be borne by the General Contractor and his Subcontractors.
- E. No work will normally be allowed on the campus on Sunday except by special permission from the University. Please note, however, that due to the nature of the delivery of heavy equipment and the anticipated traffic flow through parts of the campus, special arrangements may be made to give access on Sundays for purposes of delivering heavy equipment to the site.
- F. The general contractor will be responsible for conduct of any subcontractors working by special permission, including provisions to lock up whenever workers are not present.

#### 1.07 OBJECTIONABLE WORKERS

- A. Any workers who may, because of improper conduct, become objectionable will be promptly removed by the Contractor at the request of the proper University officials.
- B. No firearms of any kind are allowed on the campus. Possession of a firearm on campus constitutes improper conduct.
- C. The possession or consumption of alcoholic beverages is forbidden on campus and constitutes improper conduct.
- D. The University is a smokeless campus except in designated smoking areas. The use of tobacco products (including smokeless tobacco) is prohibited off the job site. Any workers found smoking off the job site or not in a designated smoking area are subject to being ticketed and fined.
- E. Smoking will be restricted to within the construction limits and to areas immediately adjacent to the construction trailer. Suitable waste receptacles are to be provided. For projects involving jobsites located on interiors of buildings, smoking will only be allowed at exterior locations of the building within the construction limits. At no time will smokeless cigarettes, tobacco cigarettes, smokeless tobacco products or similar items be permitted on the interior of any campus buildings.
- F. Workers shall wear shirts and long pants while on campus. Work shirts shall contain information identifying workers as representatives of the company employing them (company name, logo, etc.). Non-compliance constitutes improper conduct.
- G. Use of offensive language or gestures constitutes improper conduct.

#### 1.08 EXCAVATION

- A. No person shall make any excavation or opening in any of the grounds of the campus without first obtaining a permission to do so from the Physical Plant's Project Manager. The grounds of the University as used herein include, but are not limited to, the streets,

sidewalks, parking areas, and all other public and private areas of the Hattiesburg Campus, whether covered or uncovered.

- B. Any excess excavation shall be trucked to dumping points on the University campus as indicated on the drawings (map and/or distance), or to a proper location of their own off campus by special permission of the University.
- C. The public is to be protected at the perimeter of all excavations, pits, holes, etc. by means of orange plastic barrier mesh fencing supported by steel t-post stakes.

#### 1.09 PROTOCOLS

- A. Unless instructed otherwise, a construction sign will be required that identifies the project Professional and Contractor as outlined in the layout furnished. Two single-sided signs will be required. Locations to be determined at the pre-construction meeting.
- B. The University will require a minimum of 30 days to issue approval of color schedules, samples selections, keying schedules, etc. from complete sets of submittals as soon after contract award as possible.
- C. From project start to project completion, copies of all project submittals exchanged between parties throughout the construction period will concurrently be provided to the University for review and approval. (Copies of approved submittals will also be provided as formally required for Project Closeout).
- D. An appropriate representative of the University must be present during periods of major testing (i.e., systems tests, performance tests, load tests, etc.). Provide 24 hour advance notice to University personnel who will attend equipment testing and structural testing. Failure to give advance warning to University personnel will require repeating the test procedures. The presence of University personnel does not relieve the Contractor, Architect and/or Engineer of the requirement to be present during said system tests, performance tests, load tests, etc.

#### 1.10 FIRE AND SAFETY

- A. There shall be no burning of materials on properties of the University of Southern Mississippi. All clearing and grubbing, debris, rubbish, trash and any other material which is subject to burning, shall be removed and disposed of outside the limits of the University property. It shall be the responsibility of the contractor to acquire, maintain and pay for, if necessary, a disposal area.
- B. The General Contractor will provide general temporary fire protection. Subcontractors will be responsible for their own special requirements.
- C. Organized safety measures shall be enforced on all construction work.
- D. Protective devices such as signs, lights, barricades, covered walkways, signals, fences, etc., shall be utilized night and day to protect students and personnel on the campus. All temporary construction shall conform to or exceed the requirements of Chapter 33, "Safeguards During Construction", of the International Building Code, latest edition, and as identified on the Life Safety / Building Code sheet of the project drawings.
- E. The intent of the Construction Limits Plan is to provide for safe vehicular access to the site and pedestrian access points to buildings. On occasion, covered protection from overhead construction may be required. Overriding considerations are that ADA



compliant access routes must be retained or provided in and around construction sites and that the safety of faculty, staff and students is paramount at all times.

- F. Temporary construction project fence requirements for the project are generally to provide fence enclosure around the construction limits.
- G. Adjacent property shall be protected at all times. Contractors will be responsible to pay for or reimburse the University for any Property Damage that occurs as a result of the construction.

1.11 TEMPORARY SERVICE OF WATER, GAS AND ELECTRICAL UTILITIES

- A. The University will pay the usage costs for water, gas and electrical utilities used during construction, only to the extent those utilities are available at the immediate construction site. Costs to temporarily extend utilities to areas of the site remote for the source of a utility are the responsibility of the Contractor and shall be included in the Base Bid.
- B. If in place utility lines are made defunct as a result of the work, the costs to reinstate the utility at the same or another location will be the responsibility of the Contractor and shall be included in the Base Bid. The responsibility of the University is limited to usage costs only.

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**NOTICE TO BIDDERS NO. 1**

**DATE:** July 1, 2005

**SUBJECT:** BIDDING REQUIREMENTS AND CONDITIONS

**REFERENCE:** Section S-102.02 of 2004 Edition of the Standard  
Specifications for Road and Bridge Construction

**NOTICE TO BIDDERS**  
**(ALL PROJECTS)**

The current (2004) Edition of the Mississippi Standard Specifications for State Aid Road and Bridge Construction adopted by this Office on July 1, 2005, and approved by the Federal Highway Administration on July 1, 2005 is made a part hereof fully and completely as if it were attached hereto, except where superseded by special provisions, or amended by revisions of the Specifications contained herein. Copies of the specification book may be purchased from the Office of State Aid Road Construction.

A reference in any contract document to controlling requirements in another portion of the contract documents shall be understood to apply equally to any revision or amendment thereof included in the contract.

In the event the plans or proposal inadvertently contain references to the 1982 or 1989 Edition of the Mississippi Standard Specifications for State Aid Road and Bridge Construction, it is to be understood that such references shall mean the comparable provisions of the 2004 Edition of the Standard Specifications.

**NOTICE TO BIDDERS**  
**(FEDERAL AID PROJECTS)**

The Contractor and sub-contractors shall submit one copy each of FORMS CAD-880, "Weekly Summary of Wage Rates" and CAD-881, "Weekly Statement of Compliance" each week to the State Aid Engineer and to the County Engineer. The Contractor and sub-contractors may at their discretion, submit two (2) copies of each form to the County Engineer, who in turn, shall forward one copy to State Aid. The forms may be obtained from:

Office Supervisor  
Office of State Aid Road Construction  
P.O. Box 1850  
Jackson, Mississippi 39215-1850

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

NOTICE TO BIDDERS NO. 2

DATE: July 1, 2004

SUBJECT: HIGH VOLTAGE OVERHEAD LINES

**NOTICE OF WORK TO BE PERFORMED  
IN PROXIMITY OF HIGH VOLTAGE POWER LINES**

In accordance with Section 45-15-1, et seq., Mississippi Code of 1972 (as amended effective July 1, 1988), \_\_\_\_\_ (herein after referred to as "Applicant") (Supervisor in Charge: \_\_\_\_\_), whose address is \_\_\_\_\_, and whose telephone number is \_\_\_\_\_, hereby gives notice to the electric utility (hereinafter referred to as "Utility") that Applicant will be performing functions or activities at the location of \_\_\_\_\_ and that the estimated starting date of this work is \_\_\_\_\_. This work could reasonably be expected to cause persons, equipment or parts of tools or materials to be brought within ten (10) feet of Utility's high voltage lines at the proposed work area. Applicant hereby requests the Utility to confer with Applicant or his representative at the work site to ascertain the type of work activity that will take place and if further safety measures need to be taken by either the Applicant or the Utility. The Utility will give the Applicant a written cost estimate for safety arrangements to deter contact with on-site power lines. Applicant agrees not to perform such functions or activities until mutually satisfactory arrangements as provided by Section 45-15-9 have been made to deter contact with Utility's line.

Nothing contained in this Notice shall diminish or affect the obligation imposed upon the Utility under Section 45-15-1, et seq., or under existing laws or be construed as a waiver of the Applicant's or the Utility's rights under the law.

NOTICE GIVEN THIS, the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
APPLICANT

BY: \_\_\_\_\_

\_\_\_\_\_  
(Title)

Notice received by the Utility this the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

NOTICE TO BIDDERS NO. 3

DATE: April 4, 2018

SUBJECT: SPECIALTY ITEMS

PROJECT: 31<sup>st</sup> Ave. & Alley, DECD-0018(34)BO

COUNTY: Forrest

Pursuant to the provisions of Section S-108 of the Mississippi Standard Specifications for State Aid Road and Bridge Construction, 2004 Edition, the following work items are hereby designated as "Specialty Items" for this contract.

| <u>Pay Item No.</u> | <u>Description</u>                                               |
|---------------------|------------------------------------------------------------------|
| S-618-A             | Maintenance of Traffic                                           |
| S-618-B             | Additional Construction Signs                                    |
| S-621-B             | 4" Wide Thermoplastic Traffic Stripe, (Continuous White)(90 Mil) |
| S-621-E-2           | 4" Wide Thermoplast Traffic Stripe, (Continuous Yellow)(90 Mil)  |
| S-621-H-2           | Thermoplastic Legend (White)(120 Mil)                            |
| S-630-A             | Reflectorized Traffic Warning Sign, (Encapsulated Lens)          |
| S-630-B             | Reflectorized Traffic Regulatory Sign, (Encapsulated Lens)       |
| S-233-A             | Temporary Silt Fence (Type V) (AOS 0.21-0.43)                    |
| 211-C               | Topsoil for Plant Holes, Contractor Furnished                    |
| 212-B               | Standard Ground Preparation                                      |
| 216-B               | Solid Sodding, Tifway 419 Hybrid Bermuda                         |
| 219-A               | Watering                                                         |
| 230-A               | Shrub Planting, Dwarf Yupon Holly                                |
| 230-A               | Shrub Planting, Parson Juniper                                   |
| 230-A               | Shrub Planting, Super Blue Liriope                               |
| 230-B               | Tree Planting, KV Purple Plum                                    |
| 230-B               | Tree Planting, Live Oak                                          |
| 230-B               | Tree Planting, Sioux Crepe Myrtle                                |
| 230-D               | Bed Preparation                                                  |
| 232-A               | Fertilizer for Woody Plant Material, Tablet, 10 Gram             |
| 232-A               | Fertilizer for Woody Plant Material, Tablet, 21 Gram             |
| 233-A               | Tree Bark Mulch                                                  |
| 233-C               | Pine Straw Mulch, Bale                                           |
| 282-A               | Remove and Relocate Pop-Up Sprinkler Head                        |
| 682-A               | Underground Branch Circuit, AWG10, 3 Conductor                   |
| 682-A               | Underground Branch Circuit, AWG10, 3 Conductor<br>(Jack or Bore) |
| 683-B               | Lighting Assembly, Low Mast, 22-6-2-250 Per Plans                |
| 684-A               | Pole Foundation, 24" Diameter                                    |

(7-01-2004)

November 8, 2017

In accordance with Senate Bill No. 2241 of the Mississippi Legislature Regular Session 1981, the industry wide current petroleum products base prices for contracts to be let in November 2017 are furnished as follows.

FUELS

|          | <u>Per Gallon</u> | <u>Per Liter</u> |
|----------|-------------------|------------------|
| Gasoline | \$2.1438          | \$0.5663         |
| Diesel   | \$2.4375          | \$0.6439         |

MATERIALS OF CONSTRUCTION

| <u>ASPHALT CEMENT</u>                                | <u>Per Gallon</u> | <u>Per Ton</u> | <u>Per Liter</u> | <u>Per Metric Ton</u> |
|------------------------------------------------------|-------------------|----------------|------------------|-----------------------|
| Viscosity Grade AC-5                                 | \$1.5680          | \$372.00       | \$0.4142         | \$410.05              |
| Viscosity Grade AC-10                                | \$1.5596          | \$370.00       | \$0.4120         | \$407.85              |
| Viscosity Grade AC-20                                | \$1.4963          | \$355.00       | \$0.3953         | \$391.31              |
| Viscosity Grade AC-30                                | \$1.4963          | \$355.00       | \$0.3953         | \$391.31              |
| Grade PG-64-22                                       | \$1.4963          | \$355.00       | \$0.3953         | \$391.31              |
| Grade PG-67-22                                       | \$1.4963          | \$355.00       | \$0.3953         | \$391.31              |
| Grade PG-76-22                                       | \$2.0714          | \$491.43       | \$0.5472         | \$541.70              |
| Grade PG-82-22                                       | \$2.6028          | \$617.50       | \$0.6876         | \$680.67              |
| <u>EMULSIFIED ASPHALTS, PRIMES, &amp; TACK COATS</u> |                   |                |                  |                       |
| Grade SS-1                                           | \$1.9744          |                | \$0.5216         |                       |
| Grade RS-2C (CRS-2)                                  | \$1.7734          |                | \$0.4685         |                       |
| Grade CRS-2P                                         | \$2.0593          |                | \$0.5440         |                       |
| Grade EA-1, EPR-1, & AE-P                            | \$3.3000          |                | \$0.8718         |                       |
| Grade MC-70                                          | \$3.6498          |                | \$0.9642         |                       |
| Grade CSS-1 & 1H (Undiluted)                         | \$2.0486          |                | \$0.5412         |                       |
| Grade CSS-1 & 1H<br>(Diluted 1 to 1 Fog Seal)        | \$2.0500          |                | \$0.5416         |                       |

EARL GLENN, P.E.  
STATE CONSTRUCTION ENGINEER

EG: tmb

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**NOTICE TO BIDDERS NO. 7**

**DATE: July 1, 2004**

**SUBJECT: PAYMENTS TO SUBCONTRACTORS**

Bidders are hereby advised that each month, the Contractor will submit to the County/LSBP Engineer form OCR-484-SA certifying payments to all subcontractors. Form OCR-484-SA can be obtained from the Office Of State Aid Road Construction, MDOT Lab Building, 412 Woodrow Wilson Avenue, Jackson, MS, or on the State Aid website (<http://www.osarc.state.ms.us>) under Documents->Forms->State Aid Forms.

1. CONTRACTOR MUST SUBMIT THIS REPORT EACH MONTH TO THE COUNTY ENGINEER.
2. IF NO PAYMENTS ARE MADE THIS PERIOD, SUBMIT A NEGATIVE OR NO CHANGE REPORT TO THE COUNTY ENGINEER.
3. THE COUNTY ENGINEER WILL ATTACH THE OCR-484-SA TO THE MONTHLY ESTIMATE BEFORE SUBMITTING THE ESTIMATE TO THE OFFICE OF STATE AID ROAD CONSTRUCTION.
4. PROGRESS ESTIMATES MAY BE WITHHELD IF CONTRACTOR FAILS TO SUBMIT OCR-484-SA.

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**NOTICE TO BIDDERS NO. 8**

**DATE:** November 8, 2011

**SUBJECT: Errata and Modifications to the 2004 Edition of the Standard Specifications for State Aid Road and Bridge Construction**

| <u>Page</u> | <u>Subsection</u> | <u>Change</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1-21        | S-103.02          | In the third line of the last paragraph, change "contracts in the same" to "contracts, financed wholly with State funds, in the same".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1-42        | S-105.17          | In line (b) of the third paragraph, add "claim." at the end of the sentence.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1-47        | S-106.04          | In the next to last paragraph, change "TMD-22-0100-000" to "TMD-22-01-00-000" and change "TMD-21-0100-000" to "TMD-21-01-00-000".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1-84        | S-109.06.2        | In the eleventh line of the second paragraph, change "of material invoices" to "of paid material invoices".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <u>1-85</u> | <u>S-109.08</u>   | Replace 4 <sup>th</sup> paragraph in it's entirety with "The established base prices for bituminous products and fuels shall be the prices for the month prior to the month of the bid date and are available on the State Aid Website."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1-87        | S-109.08          | On page 1-87, insert the following after item (A6) and before the paragraph in the middle of the page:<br><br>"(A7) Asphalt for Fog Seal Mixture -- One half pay quantity in gallons."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1-87        | S-109.08          | Delete the last paragraph on the page in toto.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1-88        | S-109.08          | Under ADJUSTMENTS, change paragraph 5 to read as follows:<br><br>No adjustment will be made for items of work accomplished after the expiration of Contract Time except for cases involving natural or manmade disasters or other reasons not inherent to the construction industry. The contractor will submit documentation for the adjustment to the Engineer for approval/disapproval. If approved, the Engineer will prepare a supplemental agreement explaining the adjustment and submit the proper number of copies of the agreement to the Board of Supervisors for their consideration and action. If approved by the Board, all copies will be forwarded to the State Aid Engineer for concurrence. Upon concurrence, the State Aid Engineer will, if necessary, forward the agreement to any other involved parties for their action. A copy of the approved agreement will be furnished to all parties by the State Aid Engineer. |
| 2-7         | S-202.07          | In the first sentence of the first paragraph, change "S-202" To "S-202-A". In the first sentence of the second paragraph, delete "S-202-A".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



| <u>Page</u> | <u>Subsection</u> | <u>Change</u>                                                                                                                                                                                                                                                                                            |
|-------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3-30        | S-308.15          | In the third pay item, change "per square yard**" to "per square yard". In the fourth pay item, change " <u>S-308-B-1</u> " to " <u>S-308-B-2</u> ".                                                                                                                                                     |
| 4-8         | <u>S-401.02.4</u> | At the end of the third sentence, delete the "." and add "and as a base course."                                                                                                                                                                                                                         |
| 4-8         | S-401.02.4        | In the table at the end of the Subsection, for the 19 mm, change "2 ¼" to "2 ½" in the Minimum and change "3" to "3 ½" in the Maximum; for the 12.5 mm, change "2" to "2 ½" in the Maximum; for the 9.5 mm, change "1 ½" to "2" in the Maximum; and for the 4.75 mm, change "¾" to "1 ¼" in the Maximum. |
| 4-23        | S-401.03.1.4      | In the first paragraph, change "92.0 percent" to "the specified percentage (92.0 or 93.0)".                                                                                                                                                                                                              |
| 4-32        | S-403.03.3        | In the first sentence of the second paragraph, change "acceptance and pavement" to "acceptance and payment".                                                                                                                                                                                             |
| 4-45        | S-409.02.2        | Change "PG 64-22" to "PG 67-22".                                                                                                                                                                                                                                                                         |
| 6-2         | S-601.06          | In the first sentence, change "S-804.03" to "S-804.03.5".                                                                                                                                                                                                                                                |
| 6-7         | S-602.05          | Change the subsection reference for Bending from "S-805.05" to "S-805.03.2".                                                                                                                                                                                                                             |
| 6-9         | S-603.02          | Change the subsection reference for Joint Mortar from "707.02" to "714.11".                                                                                                                                                                                                                              |
| <u>6-15</u> | <u>S-603.09</u>   | After second sentence, add "All lift holes shall be filled and/or sealed to the satisfaction of the Engineer."                                                                                                                                                                                           |
| 6-78        | S-620.06          | Change the first sentence of the second paragraph, from "Legend will be measured by the square foot.", to "Legend will be measured by the linear foot or square foot, as applicable."                                                                                                                    |
| 6-78        | S-620.07          | In the sixth pay item, change "S-620-E-1" to "S-620-E-2".                                                                                                                                                                                                                                                |
| 7-17        | S-702.12          | In TABLE I, under the heading of Test, in the second line change "140°F, poises" to "275°F, C <sub>s</sub> ".                                                                                                                                                                                            |
| 7-20        | S-703.02.1        | In line (1) of the first paragraph, change "set-out" to "set out".                                                                                                                                                                                                                                       |
| 7-25        | S-703.04.2        | In the fifth paragraph, delete "S-703.04.3 and".                                                                                                                                                                                                                                                         |
| 7-52        | S-708.02.1.2      | In the first sentence change "20 percent" to "25%".                                                                                                                                                                                                                                                      |
| 7-104       | S-714.13.1        | Delete the fourth paragraph.                                                                                                                                                                                                                                                                             |
| 7-154       | S-721.02.3.7      | Delete Subsection S-721.02.3.7--Ground Plates in toto.                                                                                                                                                                                                                                                   |
| 8-37        | S-803.03.2.6      | In the first sentence of the second paragraph, change "S-803.03.1.5.1" to "S-803.03.2.5".                                                                                                                                                                                                                |
| 8-45        | S-803.04.1        | Delete the second paragraph and replace with the following:<br><br>Test piles which require extensions or building up will not be measured for additional payment. Splices required for the extensions will not be measured for payment.                                                                 |

| <u>Page</u>  | <u>Subsection</u> | <u>Change</u>                                                                                                                                                                             |
|--------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                   | No measurement for payment will be made for cut-off of a test pile.                                                                                                                       |
| 8-50         | S-803             | Under <b>COMPENSATION</b> , In the seventh pay item, change " <u>S-803-G: Blank</u> " to " <u>S-803-G: Concrete Piling Cut-off, Size</u> - per each "                                     |
| 8-60         | S-804.02.11       | In the last sentence of the first paragraph, change "automatically" to "automatic".                                                                                                       |
| 8-64         | S-804.02.13       | In the second line of paragraph (c), place a period after psi and delete "provided both the QC and QA test results are equal to or exceed the minimum compressive strength requirements." |
| 8-66         | S-804.02.13.1.3   | In the last sentence change, "S-804.02.13.1" to "S-804.02.12".                                                                                                                            |
| 8-67         | S-804.02.13.1.5   | Change the equation for % Reduction to:                                                                                                                                                   |
|              |                   | $\% \text{ Reduction} = \frac{(f'_c - X)}{f'_c} \times 100$                                                                                                                               |
| 8-121        | S-806.04          | In the first sentence of the third paragraph, change "by the unit (one unit consists of one wing on each side and end of the abutment cap)" to "per each".                                |
| 8-121        | S-806.08          | Change " <u>S-806.08--Basis of Payment.</u> " to " <u>S-806.05--Basis of Payment.</u> "                                                                                                   |
| 8-122        | S-806.08          | In the first pay item, change " _ _Interior" to " _ _Interior".                                                                                                                           |
| <u>8-122</u> | <u>S-806.08</u>   | On pay item S-806-H, add "or Steel Posts"                                                                                                                                                 |

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

NOTICE TO BIDDERS NO. 10

DATE: July 1, 2005

SUBJECT: MONTHLY ESTIMATE RETAINAGE

The monthly retainage for this project shall be two and one half (2-1/2) percent (%) subject to the provisions found in Subsection S-109.06.3--Retainage on page 1-84 of the 2004 Edition of the Mississippi Standard Specifications for State Aid Road and Bridge Construction.

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**NOTICE TO BIDDERS NO. 11**

**DATE:**                    **November 19, 2009**

**SUBJECT:**              **CERTIFICATION OF 100 % PAYMENT TO SUBCONTRACTORS**

Bidders are hereby advised that within thirty (30) days of any Subcontractor completing 100% of any subcontracted work, the Prime Contractor shall make full payment to the Subcontractor (including retainage), complete the following certification, attach it to form OCR-484-S or OCR-484-SA, as applicable, and submit it to the County/LSBP Engineer. Retainage on the subcontract will then be released to the Prime Contractor on a subsequent estimate.

**CERTIFICATION OF 100% OF PAYMENT TO SUBCONTRACTOR**

Date: \_\_\_\_\_  
Project No.: \_\_\_\_\_  
County: \_\_\_\_\_  
Prime Contractor: \_\_\_\_\_  
Subcontractor: \_\_\_\_\_

I, \_\_\_\_\_, hereby certify  
(Printed or typed name of Subcontractor)

that I have been paid 100% (including retainage) of the amount of work subcontracted on the above mentioned project in the amount of \_\_\_\_\_ and that I was paid within thirty (30) Days of when I completed said work.

\_\_\_\_\_  
(Signature of Subcontractor)

\_\_\_\_\_  
(Signature of Prime Contractor)

**Falsification of this Certification is subject to prosecution.**

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

NOTICE TO BIDDERS NO. 16

DATE: November 3, 2008

SUBJECT: **Safety Apparel**

Bidders are advised that the Code of Federal Regulations CFR 23 Part 634 final rule was adopted November 24, 2006 with an effective date of November 24, 2008. This rule requires that “ **All workers within the right of way of a Federal-Aid Highway who are exposed either to traffic (vehicles using the highway for the purposes of travel) or to construction equipment within the work area shall wear high-visibility safety apparel**”. High-visibility safety apparel is defined in the CFR as “**personnel protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage, and that meets the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled American National Standard for High-Visibility Safety Apparel and Headwear**”. All workers on County right-of-way shall comply with the Federal Regulation. Workers are defined by the CFR as “**people on foot whose duties place them within the right-of-way of a Federal-Aid Highway, such as highway construction and maintenance forces, survey crews, utility crews, responders to incidents within the highway right-of-way, and law enforcement personnel when directing traffic, investigating crashes, and handling lane closures, obstructed roadways, and disasters within the right-of-way of a Federal-Aid Highway**”.

You can access this final rule at the following link:

<http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/E6-19910.pdf>

**Supplemental Specification  
901-S-102-1  
Bidding Requirements and  
Conditions**

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**DATE:** March 11, 2010

**SUBJECT:** Bid Bond Agent

Delete the first sentence of the second paragraph of S-102.08 on page 1-19, and substitute the following:

If a bid bond is offered as guaranty, the bond must be on a form approved by the State Aid Engineer, made by a Surety, and must be acceptable to the Board and the State Aid Engineer and signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent and the bidder.

**Supplemental Specification  
901-S-103-1  
Award and Execution of Contract**

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**DATE:** March 11, 2010

**SUBJECT:** Contract Bond Agent or Liability Insurance Agent

Delete the last sentence of the paragraph of S-103.05 on page 1-22, and substitute the following:

The bond or bonds shall be negotiated for, procured from, signed or countersigned by, and the premium paid to a Mississippi Agent or Qualified Nonresident Agent of the Surety.

Delete the last sentence of the first paragraph of S-103.06.1 on page 1-22, and substitute the following:

Each policy shall be signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent of the insurance company.

Delete the last sentence of the second paragraph of S-103.06.1 on page 1-23, and substitute the following:

Each policy shall be signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent of the insurance company.

Supplemental Specification  
**901-S-104-1**  
Removal and Disposal of Structures  
and Obstructions

OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DATE: July 1, 2005

**SUBJECT: Changes in Character of Work and Changed Physical Conditions and Removal and Disposal of Structures and Obstructions:**

Section S-104 - SCOPE OF WORK; of the MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2004 EDITION is hereby amended as follows:

**901-S-104.02.1--Changes in Character of the Work and Changed Physical Conditions:** Delete the last sentence of the first paragraph and add the following paragraphs:

Upon written notification, the Engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. The Engineer will notify the Contractor, in writing, of the determination whether or not an adjustment of the contract is warranted.

No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.

In the second paragraph, after the words " cannot be reached," delete "the State Aid Engineer" and insert "the Board, with the approval of the State Engineer,". Then delete the words "which the State Aid Engineer has" and insert "which the Board and the State Aid Engineer have".

**901-S-104.05--Removal and Disposal of Structures and Obstructions:** After the last paragraph on page 1-27, add the following paragraph:

The Contractor shall also furnish the Engineer a certified letter stating that the area of disposal is not in a wetland.

**901-S-104.06--Rights in and Use of Materials Found on the Work:** After the first sentence of the third paragraph insert the following sentence:

The Contractor shall also furnish the Engineer a certified letter stating that the area of disposal is not in a wetland.



Supplemental Specification  
**901-S-107-2**  
Material Pits and Quarries

OFFICE OF STATE AID ROAD CONSTRUCTION

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DATE: July 01, 2005

**SUBJECT: Material Pits:**

Section S-107- LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC; of the MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2004 EDITION is hereby amended as follows:

**901-S-107.23--Material Pits:** Delete the first and second paragraph on page 1-66 and replace with the following paragraphs:

Before a pit (quarry) is opened (area cleared or overburden disturbed), furnish to the County Engineer a letter from the Executive Director of the Department of Archives and History, P. O. Box 571, Jackson, Mississippi 39205 (telephone number 601/576-6850), stating that the pit site is satisfactory from an archaeological and historical standpoint. Additionally, the contractor will furnish the Engineer either a copy of the " Notification of Exempt Operations" or a copy of the (permanent or temporary) Class II Permit approval from the Mississippi Department of Environmental Quality, Office of Geology.

For material pits located in Clarke, Covington, Forrest, George, Greene, Hancock, Harrison, Jackson, Jones, Lamar, Pearl River, Perry, Stone and Wayne Counties, the Contractor will be required to make special considerations regarding gopher tortoises. In addition to the normal required documentation associated with material pits, the Contractor shall, for each site used to obtain or dispose of materials associated with material pits located in these Counties, provide the Engineer with a letter from a qualified biologist certifying that the site was inspected prior to any clearing of vegetation or disposal of project materials and that the site is not inhabited by gopher tortoises, or appropriate avoidance measures have been installed. No individual lacking the proper State or Federal license shall touch or otherwise harass a gopher tortoise.

All costs involved in obtaining letters of clearance shall be born by the Contractor

Supplemental Specification  
**901-S-107-3**  
Permits, Licenses and Taxes

OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DATE: May 10, 2006

**SUBJECT: Permits, Licenses and Taxes:**

Section S-107- LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC; of the MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2004 EDITION is hereby amended as follows:

**901-S-107.02-Permits, Licenses and Taxes.** Delete in toto Subsection 107.02 on page 1-50, and substitute the following:

Except as provided in S-107.09, and S-107.22, the Contractor or Subcontractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work. At any time during the life of this contract, State Aid may audit the Contractor's or Subcontractor's compliance with the requirements of this section.

The Contractor or Subcontractor is advised that the " Mississippi Special Fuel Tax Law", Section 27-55-501, et seq. and the Mississippi Use Tax Law, Section 27-67-1, et seq., Mississippi Code of 1972, Annotated, and their requirements and penalties apply to any contract or subcontract for construction, reconstruction, maintenance or repairs, for contracts or subcontracts entered into with the State of Mississippi, any political subdivision of the State of Mississippi, or any Department, Agency, Institute of the State of Mississippi or any political subdivision thereof.

The Mississippi State Tax Commission will be notified of the name and address of Contractors or any Subcontractors that are awarded State Aid contracts. The Contractor or Subcontractor will be subject one or more audits during the life of this contract to make certain that all applicable fuel taxes are being paid promptly as outlined in Section 27-55-501, et seq., Mississippi Code of 1972, Annotated, and any sales and/or use taxes, as outlined in Section 27-67-1, et seq., Mississippi Code of 1972, Annotated are being paid in compliance with the law.

SPECIAL PROVISION NO. 901-S-618-1  
PROJECT NO. DECD-0018(34)BO  
COUNTY: Forrest

DATE: October 4, 2017

SUBJECT: SUPPLEMENT TO TRAFFIC CONTROL PLAN

Road "A" of the project shall be closed to thru traffic from construction start-up until striping is complete on that portion of 31<sup>st</sup> Avenue just north of the alley (~Sta 21+90) to the EOP at Pearl Street. That portion of the 31<sup>st</sup> Avenue from Hardy Street to just north of the alley shall remain open to traffic throughout the project, with the Contractor performing single lane closures as detailed on Sheet No. 2U of the plans to perform the necessary milling, overlay and striping. Road "B" of the project shall be closed to thru traffic from construction start-up until the final surface is in place.

Traffic may detour around the project utilizing 32<sup>nd</sup> Avenue, Southern Miss Drive and Pearl Street.

The Contractor shall install Road Work Ahead, Road Closed, Road Closed Ahead signs and barricades as detailed on Sheet No. 2U of the plans. The Contractor shall be responsible for erecting and maintaining all the signs and barricades as shown on Sheet No. 2U for the entire course of the project.

Contractor's responsibilities are as required by Subsection S-104.04, S-105.15, S-107.07, and S-107.10; Sheet No. 2U of the plans and Part VI of the MUTCD, latest edition. The requirements of this Special Provision do not alter or in any way change the requirements of the Contract except as specially stated herein.

Doug Wimberly, PE, Project Engineer, is designated as the responsible person to insure the Contractor constructs, installs, and maintains the devices called for on the Traffic Control Plan. An inspection of traffic control signs and devices shall be performed at periods not exceeding one week regardless of construction activities within the project. The contractor will be required to immediately rectify any noted deficiencies.

Supplemental Specification  
**901-S-701-2**  
Portland Cement

OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DATE: May 10, 2006

**SUBJECT: Portland Cement**

Section S-701 - HYDRAULIC CEMENT; of the MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2004 EDITION is hereby amended as follows:

**901-S-701.01--Portland Cement.** Delete the third paragraph and table in Subsection 701.01 on page 7-9, and substitute the following:

When Portland cement concrete or cement for soil stabilization is exposed to moderate or severe soluble sulfates, or to seawater, cement types and replacement of cement by Class F fly ash (FA), ground granulated blast furnace slag (GGBFS), or metakaolin shall be as follows:

**Cementitious Materials for Soluble Sulfate Conditions**

| Sulfate Exposure      | Water-soluble sulfate (SO <sub>4</sub> ) in soil, % by mass | Sulfate (SO <sub>4</sub> ) in water, ppm | Cementitious material required                                                                                                                  |
|-----------------------|-------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Negligible            | 0.00 - 0.10                                                 | 0.0 - 150                                | ---                                                                                                                                             |
| Moderate and Seawater | 0.10 - 0.20                                                 | 150 - 1500                               | Type II*** cement, or Type I cement with one of the following replacements of cement:<br>25% Class F, FA, or<br>50% GGBFS, or<br>10% metakaolin |
| Severe                | 0.20 - 2.00                                                 | 1500 - 10,000                            | Type II* cement with one of the following replacements of cement:<br>25% Class F, FA, or<br>50% GGBFS, or<br>10% metakaolin                     |

\* Type I cement with a maximum 8% tricalcium aluminate may be used in lieu of Type II Cement.

\*\* Class F, FA or GGBFS may be added as a replacement for Portland cement in accordance with the proportions as listed in this table.

Class C fly ash shall not be used as a replacement for Portland cement in any of the sulfate exposure conditions listed above.

Supplemental Specification  
**901-S-708-1**  
Non-Metal Drainage Structures

OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DATE: May 10, 2006

**SUBJECT: Non-Metal Drainage Structures:**

Section S-708 - NON-METAL STRUCTURES AND CATTLEPASSES; of the MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2004 EDITION is hereby amended as follows:

**901-S-708.02.3.2--Marking:** Delete the second sentence of Subsection 708.02.3.2 on page 7-53, and substitute the following:

Machine made Pipe shall be marked in accordance with one of the following methods: 1) the pipe shall be inscribed on the outside of the pipe and stenciled on the inside of the pipe, or 2) the pipe shall be inscribed on the inside of the pipe, only. All other pipe may be stenciled.

**901-S-708.22.2--Exceptions to AASHTO:** Delete the sixth paragraph of Subsection 708.22.2 on page 7-61.

Supplemental Specification  
**901-S-714-1**  
Geotextile Certification

OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DATE: July 1, 2005

**SUBJECT: Geotextile Certification:**

Section S-714 - MISCELLANEOUS MATERIALS; of the MISSISSIPPI STANDARD SPECIFICATION FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2004 EDITION is hereby amended as follows:

**901-S-714.13.10--Acceptance By Certification.** After the second sentence of Subsection S-714.13.10 on page 7-105 insert the following:

Additionally, at least one certified test report, as per S-700.05.2, for each manufacturer's lot shall be furnished to the Engineer by the Contractor at no additional cost to the project.

OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DATE: May 10, 2006

**SUBJECT: Miscellaneous Materials:**

Section S-714-MISCELLANEOUS MATERIALS; of the MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2004 EDITION is hereby amended as follows:

Delete Subsection 714.07 on page 7-92 and substitute the following:

**901-S-714.07--Other Cementitious Materials:**

**901-S-714.07.1--Metakaolin:**

**901-S-714.07.1.1--Metakaolin--General:** Metakaolin shall only be used to bring the cementitious materials in Portland cement concrete and cement for soil stabilization into compliance with the requirements for cementitious materials exposed to soluble sulfate conditions. The approval of each metakaolin source shall be on a case by case basis as determined by the MDOT State Materials Engineer. Source approval will be based on, but not limited to, review of the proposed source's quality control program, production history, certified test reports, certification of shipment from the supplier, and job control sampling and testing requirements.

The Contractor shall provide suitable means for storing and protecting the metakaolin against dampness and contamination Metakaolin which has become partially set, caked, or contains lumps shall not be used.

The MDOT State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing, or other additions made to the metakaolin during production.

Metakaolin from different sources shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer. In addition to these requirements, metakaolin shall meet the following specific requirements.

**901-S-714.07.1.2--Specific Requirements:** Metakaolin shall meet the requirements of AASHTO Designation: M 295 Class N with the following modifications:

1. The sum of  $\text{SiO}_2 + \text{Al}_2\text{O}_3 + \text{Fe}_2\text{O}_3$  Shall be at least 85%. The Material Safety Data Sheet shall indicate the amount of crystalline silica, as measure by National Institute of Occupation Safety and Health (NIOSH) 7500 method, after removal of the mica interference, is less than 1.0%.
2. The loss on ignition shall be less than 3.0%.
3. The available alkalies, as equivalent  $\text{Na}_2\text{O}$ , shall not exceed 1.0%.
4. The amount of material retained on the No. 325 Mesh sieve shall not exceed 1.0%.
5. The strength activity index at seven (7) days shall be at least 85%.

Supplemental Specification  
**901-S-804-1**  
Concrete Bridges And Structures

OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DATE: May 5, 2006

**SUBJECT: Concrete Bridges And Structures:**

Section S-804 - CONCRETE BRIDGES AND STRUCTURES; of the MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2004 EDITION is hereby amended as follows:

**901-S-804.02.1--General.** Add the following materials to the list of materials in Subsection 804.02.01 on page 8-51.

Ground Granulated Blast Furnace Slag (GGBFS) . . . . . S-714.06  
Metakaolin . . . . . 901-S-714.07.01

**901-S-804.02.10--Portland Cement Concrete Mix Design.** Change Note \*\*\*\*\* of Subsection S-804.02.10 on page 8-56 as follows:

\*\*\*\*\* Class DS Concrete for drilled shafts shall have an  $8 \pm 1$ -inch slump. In the event of free fall method of concrete placement is used, the slump shall be  $6 \pm 1$  inch.

Delete the last paragraph of Subsection S-804.02.10 on page 8-57 and substitute the following:

Either Type A, D, F, G or mid-range chemical admixture shall be used in all classes of concrete. Any combination of water reducing admixtures shall be approved by the Engineer before their use.

**901-S-804.05--Basis of Payment.** Add "901" prefix to the pay items listed on page 8-108.



**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
AFFIDAVIT**

(To be Executed in Duplicate)

State of Mississippi

County of \_\_\_\_\_

I, \_\_\_\_\_ (Name of person signing affidavit), individually, and in my capacity as \_\_\_\_\_ (Title) of \_\_\_\_\_ (Name of Firm, Partnership, or Corporation) being duly sworn, on oath, do depose and say as follows:

That \_\_\_\_\_ (Name of Firm, Partnership, or Corporation), Bidder on Project No. \_\_\_\_\_ in \_\_\_\_\_ County, Mississippi has not either directly or indirectly entered into any agreement, participated in any collusion; or otherwise taken any action in restraint of free competitive bidding in connection with this contract; nor have any of its officers, partners, employees, or principal owners.

Further, being duly sworn or under penalty of perjury under the laws of the United States and the State of Mississippi; certifies that, except as noted below, the company or any person associated therewith in the capacity of owner, partner, director, manager, auditor, or any position involving the administration of federal funds:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Item (b) of this subsection; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Initial here "\_\_\_\_\_" if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

The Bidder shall provide immediate written notice to the Board of Supervisors and the State Aid Engineer at any time, prior to or after award, that it is known a certification was erroneous when executed or has become erroneous by reason of changed circumstances.

NOTE: Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

All of the foregoing and attachments (when indicated) are true and correct.

(SEAL)

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Sworn before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

My commission expires \_\_\_\_\_

Notary Public: \_\_\_\_\_

NOTE: **FAILURE TO PROPERLY SIGN AND NOTARIZE THIS AFFIDAVIT WILL DISQUALIFY THE BID.**

**OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
AFFIDAVIT**

(To be Executed in Duplicate)

State of Mississippi

County of \_\_\_\_\_

I, \_\_\_\_\_ (Name of person signing affidavit), individually, and in my capacity as \_\_\_\_\_ (Title) of \_\_\_\_\_ (Name of Firm, Partnership, or Corporation) being duly sworn, on oath, do depose and say as follows:

That \_\_\_\_\_ (Name of Firm, Partnership, or Corporation), Bidder on Project No. \_\_\_\_\_ in \_\_\_\_\_ County, Mississippi has not either directly or indirectly entered into any agreement, participated in any collusion; or otherwise taken any action in restraint of free competitive bidding in connection with this contract; nor have any of its officers, partners, employees, or principal owners.

Further, being duly sworn or under penalty of perjury under the laws of the United States and the State of Mississippi; certifies that, except as noted below, the company or any person associated therewith in the capacity of owner, partner, director, manager, auditor, or any position involving the administration of federal funds:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Item (b) of this subsection; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Initial here " \_\_\_\_\_ " if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

The Bidder shall provide immediate written notice to the Board of Supervisors and the State Aid Engineer at any time, prior to or after award, that it is known a certification was erroneous when executed or has become erroneous by reason of changed circumstances.

NOTE: Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

All of the foregoing and attachments (when indicated) are true and correct.

(SEAL)

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Sworn before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

My commission expires \_\_\_\_\_

Notary Public: \_\_\_\_\_

NOTE: **FAILURE TO PROPERLY SIGN AND NOTARIZE THIS AFFIDAVIT WILL DISQUALIFY THE BID.**

MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
OFFICE OF STATE AID ROAD CONSTRUCTION

CONTRACTOR EEV CERTIFICATION AND AGREEMENT

Project No: \_\_\_\_\_ County: \_\_\_\_\_

By executing this Certification and Agreement, the undersigned verifies its compliance with Senate Bill 2988 from the 2008 Mississippi Legislative Session, "Mississippi Employment Protection Act," as published in Laws, 2008 and codified in the Mississippi Code of 1972, as amended, and any rules or regulations promulgated by Office of State Aid Road Construction, Department of Employment Security, State Tax Commission, Secretary of State, and Department of Human Services in accordance with the Mississippi Administrative Procedures Law (Section 25-43-1 et seq., Mississippi Code of 1972, as amended), stating affirmatively that the individual, firm, or corporation which is contracting with the County and the Office of State Aid Road Construction has registered with and is participating in a federal work authorization program\* operated by the United States Department of Homeland Security to electronically verify information of newly hired employees pursuant to the Immigration Reform and Control Act of 1986, Pub.L. 99-603, 100 Stat 3359, as amended. The undersigned agrees to inform the Office of State Aid Road Construction if the undersigned is no longer registered or participating in the program.

The undersigned agrees that, should it employ or contract with any subconsultant(s) and/or subcontractor(s) in connection with the performance of this Contract, the undersigned will secure from such subconsultant(s) and/or subcontractor(s) verification of compliance with the Mississippi Employment Protection Act. The undersigned further agrees to maintain records of such compliance and provide a copy of each such verification to the Office of State Aid Road Construction, if requested, for the benefit of the County and the Office of State Road Construction or this Contract.

EEV\* Company Identification Number [Required]

The undersigned certifies that the above information is complete, true and correct to the best of my knowledge and belief. The undersigned acknowledges that any violation may be subject to the cancellation of the contract, ineligibility for any state or public contract for up to three (3) years, the loss of any license, permit, certificate or other document granted by any agency, department or government entity for the right to do business in Mississippi for up to one (1) year, or both, any and all additional costs incurred because of the contract cancellation or the loss of any license or permit, and may be subject to additional felony prosecution for knowingly or recklessly accepting employment for compensation from an unauthorized alien as defined by 8 U.S.C §1324a(h)(3), said action punishable by imprisonment for not less than one (1) year nor more than five (5) years, a fine of not less than One Thousand Dollars (\$1,000.00) nor more than Ten Thousand Dollars (\$10,000.00), or both, in addition to such prosecution and penalties as provided by Federal law.

BY: \_\_\_\_\_  
Authorized Officer or Agent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Authorized Officer or Agent

\_\_\_\_\_  
Title of Authorized Officer or Agent of Contractor

SWORN TO AND SUBSCRIBED before me on this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

\* As of the effective date of the Mississippi Employment Protection Act, the applicable federal work authorization program is E-Verify™ operated by the U. S. Citizenship and Immigration Services of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration.

SECTION 902

PROPOSAL SHEET (2-A)

PROJECT NO. DECD-0018(34)BO

CITY OF HATTIESBURG, MISSISSIPPI

For the construction of: RECONSTRUCTION on 0.146 mile(s) of road known as 31 ST AVENUE AND ALLEY in the city of Hattiesburg, Mississippi under Dept. Of Economic & Comm. Dev. Project No. DECD-0018(34)BO.

I (We) agree to complete the entire project within 180 Working Days.

\*\*\*SPECIAL NOTICE TO BIDDERS\*\*\*

BIDS WILL NOT BE CONSIDERED UNLESS BOTH UNIT PRICES AND ITEM TOTALS ARE ENTERED

| Ref. No.      | Pay Item No. | Description                                                    | Approx. Quantity | Unit | Unit Price   |              | Item Total |       |
|---------------|--------------|----------------------------------------------------------------|------------------|------|--------------|--------------|------------|-------|
|               |              |                                                                |                  |      | Dollars      | Cents        | Dollars    | Cents |
| Roadway Items |              |                                                                |                  |      |              |              |            |       |
| 1             | S-200-A      | MOBILIZATION                                                   | Lump Sum         | LS   | XXXXXXXXXXXX | XXXXXXXXXXXX |            |       |
| 2             | S-201-A      | CLEARING AND GRUBBING                                          | Lump Sum         | LS   | XXXXXXXXXXXX | XXXXXXXXXXXX |            |       |
| 3             | S-202-A      | REMOVAL OF OBSTRUCTIONS                                        | Lump Sum         | LS   | XXXXXXXXXXXX | XXXXXXXXXXXX |            |       |
| 4             | S-202-B      | REMOVAL OF INLETS, ALL SIZES                                   | 9.000            | UN   |              |              |            |       |
| 5             | S-202-C      | REMOVAL OF CURBS, ALL TYPES                                    | 405.000          | LF   |              |              |            |       |
| 6             | S-202-D      | REMOVAL OF ASPHALT PAVEMENT, ALL DEPTHS                        | 829.000          | SY   |              |              |            |       |
|               |              |                                                                |                  |      |              |              |            |       |
| 7             | S-202-D      | REMOVAL OF CONCRETE PAVEMENT AND SIDEWALKS, ALL DEPTHS         | 276.000          | SY   |              |              |            |       |
|               |              |                                                                |                  |      |              |              |            |       |
| 8             | S-202-E      | REMOVAL OF PIPE (ALL SIZES)                                    | 494.000          | LF   |              |              |            |       |
| 9             | S-203-A      | UNCLASSIFIED EXCAVATION (FM)                                   | 43.000           | CY   |              |              |            |       |
| 10            | S-203-E1     | BORROW EXCAVATION (F.M.E.) (CONTRACTOR FURNISHED) (CLASS B7-6) | 4.000            | CY   |              |              |            |       |
| 11            | S-206-A      | STRUCTURE EXCAVATION                                           | 974.000          | CY   |              |              |            |       |
| 12            | S-304-C      | CRUSHED STONE SIZE 610 (FM)                                    | 236.000          | CY   |              |              |            |       |
| 13            | S-403-A      | HOT MIX ASPHALT, MT, 9.5-MM MIXTURE                            | 343.000          | TON  |              |              |            |       |
| 14            | S-403-C      | HOT MIX ASPHALT, MT. 25-MM MIXTURE, TRENCH WIDENING            | 271.000          | TON  |              |              |            |       |
| 15            | S-406-A      | COLD MILLING OF BITUMINOUS PAVEMENT, ALL DEPTHS                | 676.000          | SY   |              |              |            |       |
| 16            | S-407-A      | ASPHALT FOR TACK COAT, EA-1                                    | 791.000          | GAL  |              |              |            |       |
| 17            | S-408-A      | ASPHALT FOR PRIME COAT EA-1                                    | 245.000          | GAL  |              |              |            |       |

SECTION 902  
PROPOSAL SHEET (2-B)

PROJECT NO. DECD-0018(34)BO  
CITY OF HATTIESBURG, MISSISSIPPI

| Ref.<br>No. | Pay<br>Item No. | Description                                                             | Approx.<br>Quantity | Unit | Unit Price |            | Item Total |       |
|-------------|-----------------|-------------------------------------------------------------------------|---------------------|------|------------|------------|------------|-------|
|             |                 |                                                                         |                     |      | Dollars    | Cents      | Dollars    | Cents |
| 18          | S-601-B         | CLASS "B" STRUCTURAL CONCRETE,<br>MINOR STRUCTURES                      | 52.000              | CY   |            |            |            |       |
| 19          | S-602-A         | REINFORCING STEEL                                                       | 7,298.000           | LB   |            |            |            |       |
| 20          | S-603-C-A       | 15" REINFORCED CONCRETE PIPE,<br>CLASS III                              | 24.000              | LF   |            |            |            |       |
| 21          | S-603-C-D       | 22" X 13" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 60.000              | LF   |            |            |            |       |
| 22          | S-603-C-D       | 29" X 18" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 17.000              | LF   |            |            |            |       |
| 23          | S-603-C-D       | 44" X 27" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 103.000             | LF   |            |            |            |       |
| 24          | S-603-C-D       | 58" X 36" REINFORCED CONCRETE<br>ARCH PIPE, CLASS III                   | 459.000             | LF   |            |            |            |       |
| 25          | S-603-S-B       | 15" BRANCH CONNECTION INTO 58"X36"<br>RCAP                              | 1.000               | EA   |            |            |            |       |
| 26          | S-603-S-B       | 22"X13" BRANCH CONNECTION INTO 58"x<br>36" RCAP                         | 1.000               | EA   |            |            |            |       |
| 27          | S-604-A         | CASTINGS                                                                | 455.000             | LB   |            |            |            |       |
| 28          | S-604-B         | GRATINGS                                                                | 1,515.000           | LB   |            |            |            |       |
| 29          | S-609-B         | CONCRETE CURB, TYPE HEADER                                              | 153.000             | LF   |            |            |            |       |
| 30          | S-609-D         | COMBINATION CONCRETE<br>CURB AND GUTTER, TYPE I MODIFIED                | 1,858.000           | LF   |            |            |            |       |
| 31          | S-613-E         | ADJUSTMENT OF MANHOLES                                                  | 4.000               | UN   |            |            |            |       |
| 32          | S-616-A         | CONCRETE ISLAND PAVEMENT                                                | 13.000              | SY   |            |            |            |       |
| 33          | S-618-A         | MAINTENANCE OF TRAFFIC                                                  | Lump Sum            | LS   | XXXXXXXXXX | XXXXXXXXXX |            |       |
| 34          | S-618-B         | ADDITIONAL CONSTRUCTION SIGNS                                           | 0.000               | SF   | 2,500      | 00         | 0          | 00    |
| 35          | S-621-B         | 4" WIDE THERMOPLASTIC TRAFFIC<br>STRIPE (CONTINUOUS WHITE) (90 MIL)     | 0.011               | MI   |            |            |            |       |
| 36          | S-621-E-2       | 4" WIDE THERMOPLASTIC TRAFFIC<br>STRIPE (CONTINUOUS YELLOW)<br>(90 MIL) | 0.052               | MI   |            |            |            |       |
| 37          | S-621-H-2       | THERMOPLASTIC LEGEND<br>(WHITE) (120 MIL)                               | 664.000             | SF   |            |            |            |       |

SECTION 902

PROJECT NO. DECD-0018(34)BO

PROPOSAL SHEET (2-C)

CITY OF HATTIESBURG, MISSISSIPPI

| Ref. No.              | Pay Item No. | Description                                               | Approx. Quantity | Unit | Unit Price                     |       | Item Total |       |
|-----------------------|--------------|-----------------------------------------------------------|------------------|------|--------------------------------|-------|------------|-------|
|                       |              |                                                           |                  |      | Dollars                        | Cents | Dollars    | Cents |
| 38                    | S-630-A      | REFLECTORIZED TRAFFIC WARNING SIGN (ENCAPSULATED LENS)    | 4.000            | EA   |                                |       |            |       |
| 39                    | S-630-B      | REFLECTORIZED TRAFFIC REGULATORY SIGN (ENCAPSULATED LENS) | 2.000            | EA   |                                |       |            |       |
|                       |              |                                                           |                  |      | Subtotal Roadway Items         |       |            |       |
| Erosion Control Items |              |                                                           |                  |      |                                |       |            |       |
| 40                    | S-233-A      | TEMPORARY SILT FENCE (TYPE V) (AOS 0.21-0.43)             | 500.000          | LF   |                                |       |            |       |
|                       |              |                                                           |                  |      | Subtotal Erosion Control Items |       |            |       |
| Landscaping Items     |              |                                                           |                  |      |                                |       |            |       |
| 41                    | 211-C        | TOPSOIL FOR PLANT HOLES, CONTRACTOR FURNISHED             | 190.000          | CY   |                                |       |            |       |
| 42                    | 212-B        | STANDARD GROUND PREPARATION                               | 725.000          | SY   |                                |       |            |       |
| 43                    | 216-B        | SOLID SODDING, TIFWAY 419 HYBRID BERMUDA                  | 725.000          | SY   |                                |       |            |       |
| 44                    | 219-A        | WATERING                                                  | 70.000           | KGL  |                                |       |            |       |
| 45                    | 230-A        | SHRUB PLANTING, DWARF YUPON HOLLY                         | 4.000            | EA   |                                |       |            |       |
| 46                    | 230-A        | SHRUB PLANTING, PARSON JUNIPER                            | 27.000           | EA   |                                |       |            |       |
| 47                    | 230-B        | SHRUB PLANTING, SUPER BLUE LIRIOPE                        | 1,053.000        | EA   |                                |       |            |       |
| 48                    | 230-B        | TREE PLANTING, KV PURPLE PLUM                             | 14.000           | EA   |                                |       |            |       |
| 49                    | 230-B        | TREE PLANTING, LIVE OAK                                   | 8.000            | EA   |                                |       |            |       |
| 50                    | 230-B        | TREE PLANTING, SIOUX CREPE MYRTLE                         | 20.000           | EA   |                                |       |            |       |
| 51                    | 230-D        | BED PREPARATION                                           | 2,400.000        | SF   |                                |       |            |       |
| 52                    | 232-A        | FERTILIZER FOR WOODY PLANT MATERIAL TABLET, 10 GRAM       | 1.000            | K    |                                |       |            |       |
| 53                    | 232-A        | FERTILIZER FOR WOODY PLANT MATERIAL TABLET, 21 GRAM       | 2.000            | K    |                                |       |            |       |
| 54                    | 233-A        | TREE BARK MULCH                                           | 18.000           | CY   |                                |       |            |       |
| 55                    | 233-C        | PINE STRAW MULCH, BALE                                    | 75.000           | BA   |                                |       |            |       |

SECTION 902  
PROPOSAL SHEET (2-D)

PROJECT NO. DECD-0018(34)BO  
CITY OF HATTIESBURG, MISSISSIPPI

| Ref.<br>No.                | Pay<br>Item No. | Description                                                      | Approx.<br>Quantity | Unit | Unit Price |       | Item Total |       |
|----------------------------|-----------------|------------------------------------------------------------------|---------------------|------|------------|-------|------------|-------|
|                            |                 |                                                                  |                     |      | Dollars    | Cents | Dollars    | Cents |
| 56                         | 282-A           | REMOVE AND RELOCATE POP-UP<br>SPRINKLER HEAD                     | 30.000              | EA   |            |       |            |       |
| 57                         | S-608-A         | CONCRETE SIDEWALK<br>WITHOUT REINFORCEMENT                       | 216.000             | SY   |            |       |            |       |
| Subtotal Landscaping Items |                 |                                                                  |                     |      |            |       |            |       |
| Lighting Items             |                 |                                                                  |                     |      |            |       |            |       |
| 58                         | 682-A           | UNDERGROUND BRANCH CIRCUIT, AWG10,<br>3 CONDUCTOR                | 345.000             | LF   |            |       |            |       |
| 59                         | 682-A           | UNDERGROUND BRANCH CIRCUIT, AWG10,<br>3 CONDUCTOR (JACK OR BORE) | 160.000             | LF   |            |       |            |       |
| 60                         | 683-B           | LIGHTING ASSEMBLY, LOW MAST,<br>22-6-2-250 PER PLANS             | 4.000               | EA   |            |       |            |       |
| 61                         | 684-A           | POLE FOUNDATION, 24" DIAMETER                                    | 3.760               | CY   |            |       |            |       |
| Subtotal Lighting Items    |                 |                                                                  |                     |      |            |       |            |       |
| Total Bid                  |                 |                                                                  |                     |      |            |       |            |       |

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 903**

**CONTRACT** (Rev. 03-11-2010)

CONTRACT FOR \_\_\_\_\_

LOCATED IN THE COUNTY OF \_\_\_\_\_

STATE OF MISSISSIPPI

COUNTY OF \_\_\_\_\_

This contract entered into by and between the Board of Supervisors of \_\_\_\_\_  
\_\_\_\_\_ County, Mississippi, on the one hand, and the  
undersigned contractor. on the other, witnesseth:

That in consideration of the payment by the Board of Supervisors of the prices set out in the proposal hereto attached, to the undersigned contractor, such payment to be made in the manner and at the time or times specified in the specifications and the special provisions, if any, the undersigned contractor hereby agrees to accept the prices stated in the proposal in full compensation for the furnishing of all materials and equipment and the executing of all the work contemplated in this contract.

It is understood and agreed that the advertising according to law, the notice to contractors, the instructions to bidders. the proposal for the contract, the specifications. the revisions of the specifications, the special provisions, and also the plans for the work herein contemplated, said plans showing more particularly the details of the work to be done. shall be held to be, and are hereby made a part of this contract by specific reference thereto and with like effect as if each and all of said instruments had been set out fully herein in words and figures.

It is further agreed that for the same consideration the undersigned contractor shall be responsible for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, and unforeseen obstructions or difficulties which may be encountered in the prosecution of the same and for all risks of every description connected with the work for faithfully completing the whole work in good and workmanlike manner according to the approved Plans, Specifications, Special Provisions and requirements of the Board of Supervisors and the State Aid Engineer.

It is further agreed that the work shall be done under the direct supervision and to the complete satisfaction of the County Engineer, or his authorized representatives, subject to inspection at all times and approval by the State Aid Engineer, and when Federal Funds are involved, by the Federal Highway Administration, or their agents as the case may be, in accordance with those Acts of the Legislature of the State of Mississippi approved by the Governor and such rules and regulations issued pursuant thereto by the State Aid Engineer of the Mississippi Department of Transportation Authorized Federal Agencies.



The Contractor agrees that all labor as outlined in the Special Provisions will be secured from list furnished by

It is agreed and understood that each and every provision of law and clause required by law to be inserted in this, contract shall be deemed to be inserted herein and this contract shall be read and enforced as though it were included herein and, if through mere mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party hereto, the contract shall forthwith be physically amended to make such insertion.

The Contractor agrees that he has read each and every clause of this Contract, and fully understands the meaning of same and that he will comply with all the terms, covenants and agreements therein set forth.

Witness our signatures this the \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_

(1) \_\_\_\_\_ APPROVED \_\_\_\_\_ 20 \_\_\_\_  
Contractor(s)

By \_\_\_\_\_ (3) \_\_\_\_\_  
State Aid Engineer

TITLE \_\_\_\_\_  
Signed and Sealed in the presence of:  
(names and addresses of witnesses) APPROVED \_\_\_\_\_ 20 \_\_\_\_

(1) \_\_\_\_\_ (4) TRANSPORTATION COMMISSION OF THE  
STATE OF MISSISSIPPI (Approval of the  
Commission not Required when no Federal Funds are  
involved.)

(2) BOARD OF SUPERVISORS  
\_\_\_\_\_ County

By \_\_\_\_\_ By \_\_\_\_\_  
President Executive Director

Award authorized by the Board of Supervisors of \_\_\_\_\_

County in session on the \_\_\_\_\_ Day of \_\_\_\_\_ 20 \_\_\_\_

Minute Book No. \_\_\_\_\_, Page no. \_\_\_\_\_.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## SECTION 904

### CONTRACT BOND (Rev. 03-11-2010)

CONTRACT BOND FOR \_\_\_\_\_

LOCATED IN THE COUNTY OF \_\_\_\_\_

STATE OF MISSISSIPPI

COUNTY OF \_\_\_\_\_

Know all men by these presents: that we, \_\_\_\_\_  
Principal, a \_\_\_\_\_ residing at \_\_\_\_\_  
in the State of \_\_\_\_\_ and \_\_\_\_\_  
residing at \_\_\_\_\_ in the State of \_\_\_\_\_  
authorized to do business in the State of Mississippi, under the laws thereof, as surety, are held and  
firmly bound unto the Board of Supervisors of \_\_\_\_\_ County,  
State of Mississippi, in the Penal sum of \_\_\_\_\_  
(\$ \_\_\_\_\_ Dollars, lawful money of the United States of America. to be paid  
to it for which payment well and truly to be made, we bind ourselves, our heirs, administrators,  
successors, or assigns jointly and severally by these presents.

Signed and sealed this the \_\_\_\_\_ day of \_\_\_\_\_ A. D., 20 \_\_\_\_\_.

The conditions of this bond are such, that whereas the said \_\_\_\_\_

principal, has (have) entered into a contract with the Board of Supervisors of \_\_\_\_\_  
County of the State of Mississippi, bearing the date of \_\_\_\_\_ day of \_\_\_\_\_  
\_\_\_\_\_ A. D., 20 \_\_\_\_\_ hereto annexed, for the construction of certain highways in the  
said county as mentioned in said contract in accordance with the plans, specifications and special  
provisions therefor, on file in the office of the Chancery Clerk of the county and state herein named.

Now, therefore, if the above bounden \_\_\_\_\_  
in all things shall stand to and abide by and well and truly observe, do, keep and perform all and  
singular the terms, covenants, conditions, guarantees and agreements in said contract, contained on  
his (their) part to be observed, done, kept and performed and each of them, at the time and in the  
manner and form and furnish all of the material and equipment specified in said contract in strict  
accordance with the terms of said contract which said plans, specifications and special provisions  
are included in and form a part. of said contract and shall maintain, the said work contemplated until

its final completion and acceptance as specified in the currently approved specifications, and save harmless said Board of Supervisors from any loss or damage arising out of or occasioned by the negligence, wrongful or criminal act, overcharge, fraud, or any other loss or damage whatsoever, on the part of said principal(s), his (their) agents, servants, or employees in the performance of said work or in any manner connected therewith, an shall be liable and responsible in a civil action instituted by the Board of Supervisors at the instance of the State Aid Engineer or any officer of the said county authorized in such cases, for double any amount in money or property, the Board of Supervisors may lose or be overcharged or otherwise defrauded of, by reason of any wrongful or criminal act, if any, of the Contractor(s), his (their) agents, or employees, and shall promptly pay the said agents, servants and employees and all persons furnishing labor, material, equipment or supplies therefor, including premiums incurred, for Surety Bonds, Liability Insurance, and Workmen's Compensation Insurance; with the additional obligation that such Contractor shall promptly make payment of all taxes, licenses, assessments, contributions, damages, penalties and interest thereon, when and as the same may be due this State, or any county, municipality, board, department Commission or political Subdivision; in the course of the performance of said work, and in accordance with Sections 31-5-51 et seq. of the Mississippi Code of 1972, and other State statutes applicable thereto, and shall carry out to the letter and to the satisfaction of both the Board of Supervisors of the aforesaid county and the State Aid Engineer all, each and every one of the stipulations, obligations, conditions, covenants and agreements and terms of said contract in accordance with all terms thereof and all of the expense and cost and Attorney's fees that may be incurred in the enforcement of the performance of said contract, or in the enforcement of the conditions and obligations of this bond, then this obligation shall be null and void, otherwise to be and remain in full force and virtue.

Witness our signatures this the \_\_\_\_\_ day of \_\_\_\_\_ A. D., 20 \_\_\_\_\_

\_\_\_\_\_  
(CONTRACTORS) Principal

\_\_\_\_\_  
SURETY

By: \_\_\_\_\_

By: \_\_\_\_\_

(Signature) ATTORNEY IN FACT.

TITLE \_\_\_\_\_

(Contractor's Seal)

\_\_\_\_\_  
Name and address of MS agent or qualified non-resident agent

(Surety Seal)

STATE OF MISSISSIPPI  
OFFICE OF STATE AID ROAD CONSTRUCTION  
MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
PLAN AND PROFILE OF PROPOSED  
CITY STREET

STATE AID PROJECT NO. DECD-0018(34)BO  
31st AVENUE AND ALLEY  
CITY OF HATTIESBURG

LENGTH DATA

EXCEPTIONS

NONE

EQUATIONS

NONE

TOTAL

|                           |           |
|---------------------------|-----------|
| LENGTH OF ROADWAY         | 0.146 MI. |
| LENGTH OF BRIDGES         | 0.000 MI. |
| LENGTH OF PROJECT (NET)   | 0.146 MI. |
| LENGTH OF EXCEPTIONS      | 0.000 MI. |
| LENGTH OF PROJECT (GROSS) | 0.146 MI. |

ROAD "A" - 31st AVENUE

|                           |            |           |
|---------------------------|------------|-----------|
| LENGTH OF ROADWAY         | 621.59 FT. | 0.118 MI. |
| LENGTH OF BRIDGES         | 0.000 FT.  | 0.000 MI. |
| LENGTH OF PROJECT (NET)   | 612.59 FT. | 0.118 MI. |
| LENGTH OF EXCEPTIONS      | 0.000 FT.  | 0.000 MI. |
| LENGTH OF PROJECT (GROSS) | 621.59 FT. | 0.118 MI. |

ROAD "B" - ALLEY

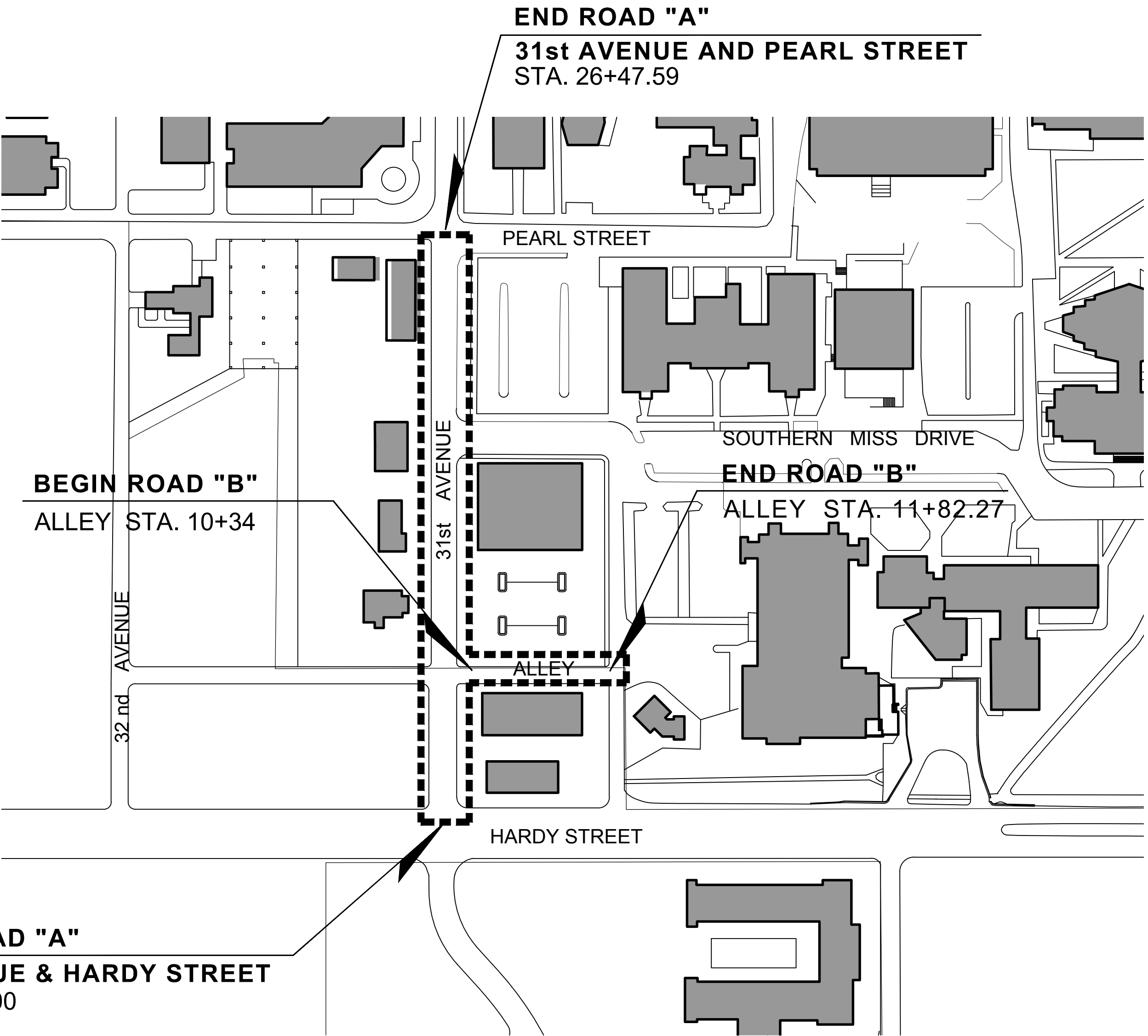
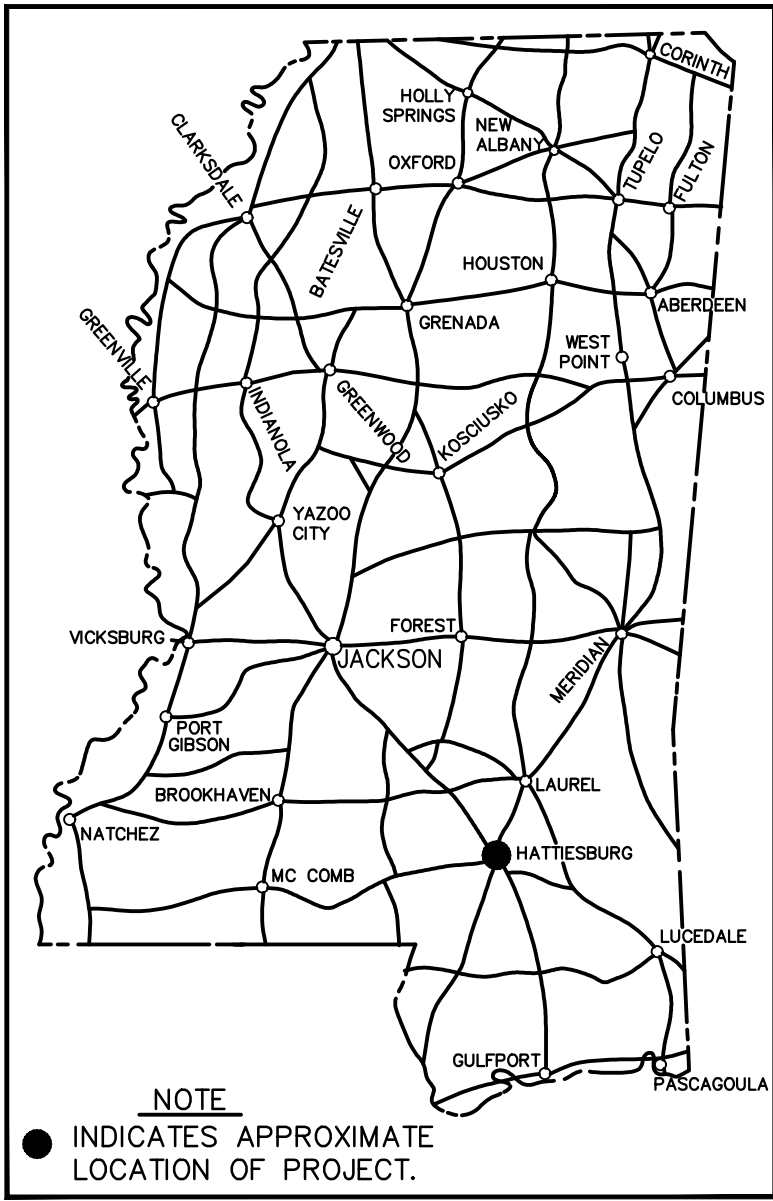
|                           |            |           |
|---------------------------|------------|-----------|
| LENGTH OF ROADWAY         | 148.27 FT. | 0.028 MI. |
| LENGTH OF BRIDGES         | 0.000 FT.  | 0.000 MI. |
| LENGTH OF PROJECT (NET)   | 148.27 FT. | 0.028 MI. |
| LENGTH OF EXCEPTIONS      | 0.000 FT.  | 0.000 MI. |
| LENGTH OF PROJECT (GROSS) | 148.27 FT. | 0.028 MI. |

SCALES

|         |   |                    |                        |
|---------|---|--------------------|------------------------|
| PLAN    | - | HORIZ.             | } SEE SHEETS FOR SCALE |
| PROFILE | - | VERT.              |                        |
| LAYOUT  | - | 1 INCH = 1,000 FT. |                        |

INDEX

FOR INDEX SEE SHEET NO. 2



|                                                                                               |            |
|-----------------------------------------------------------------------------------------------|------------|
| PREPARED BY                                                                                   | 06/04/2018 |
| ENGINEER                                                                                      | DATE       |
| OFFICE OF STATE AID ROAD CONSTRUCTION<br>MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>APPROVED |            |
| STATE AID ENGINEER                                                                            | DATE       |

STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION CURRENTLY APPROVED BY THE OFFICE OF STATE AID ROAD CONSTRUCTION OF THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION ARE MADE A PART HEREOF FULLY AND COMPLETELY AS IF ATTACHED HERETO, EXCEPT WHERE SUPERSEDED BY THE SPECIAL PROVISIONS, OR AMENDED BY REVISIONS.



| SUMMARY OF QUANTITIES    |                                                                   |                |       |      |
|--------------------------|-------------------------------------------------------------------|----------------|-------|------|
|                          |                                                                   |                |       |      |
| PARTICIPATING ITEMS:     |                                                                   |                |       |      |
| PAY ITEM NO.             | PAY ITEM                                                          | TOTAL QUANTITY |       | UNIT |
|                          |                                                                   | PLAN           | FINAL |      |
| ROADWAY ITEMS            |                                                                   |                |       |      |
| S-200-A                  | MOBILIZATION                                                      | LS             |       | LS   |
| S-201-A                  | CLEARING AND GRUBBING                                             | LS             |       | LS   |
| S-202-A                  | REMOVAL OF OBSTRUCTIONS                                           | LS             |       | LS   |
| S-202-B                  | REMOVAL OF INLETS, ALL SIZES                                      | 9              |       | UNIT |
| S-202-C                  | REMOVAL OF CURBS, ALL TYPES                                       | 405            |       | LF   |
| S-202-D                  | REMOVAL OF ASPHALT PAVEMENT, ALL DEPTHS                           | 829            |       | SY   |
| S-202-D                  | REMOVAL OF CONCRETE PAVEMENT AND SIDEWALKS, ALL DEPTHS            | 276            |       | SY   |
| S-202-E                  | REMOVAL OF PIPE, ALL SIZES                                        | 494            |       | LF   |
| S-203-A                  | UNCLASSIFIED EXCAVATION (FM)                                      | 43             |       | CY   |
| S-203-E1                 | BORROW EXCAVATION (F.M.E) (CONTRACTOR FURNISHED) (CLASS B7-6)     | 4              |       | CY   |
| S-206-A                  | STRUCTURE EXCAVATION                                              | 974            |       | CY   |
| S-304-C                  | CRUSHED STONE SIZE 610, FM                                        | 236            |       | CY   |
| S-403-A                  | HOT MIX ASPHALT, MT, 9.5-MM MIXTURE                               | 343            |       | TON  |
| S-403-C                  | HOT MIX ASPHALT, MT, 25-MM MIXTURE, TRENCH WIDENING               | 271            |       | TON  |
| S-406-A                  | COLD MILLING OF BITUMINOUS PAVEMENT, ALL DEPTHS                   | 676            |       | SY   |
| S-407-A                  | ASPHALT FOR TACK COAT, EA-1                                       | 791            |       | GAL  |
| S-408-A                  | ASPHALT FOR PRIME COAT, EA-1                                      | 245            |       | GAL  |
| S-601-B                  | CLASS "B" STRUCTURAL CONCRETE, MINOR STRUCTURES                   | 52             |       | CY   |
| S-602-A                  | REINFORCING STEEL                                                 | 7298           |       | LBS  |
| S-603-C-A                | 15" REINFORCED CONCRETE PIPE, CLASS III                           | 24             |       | LF   |
| S-603-C-D                | 22"x13" CONCRETE ARCH PIPE, CLASS A III                           | 60             |       | LF   |
| S-603-C-D                | 29"x18" CONCRETE ARCH PIPE, CLASS A III                           | 17             |       | LF   |
| S-603-C-D                | 44"x27" CONCRETE ARCH PIPE, CLASS A III                           | 103            |       | LF   |
| S-603-C-D                | 58"x36" CONCRETE ARCH PIPE, CLASS A III                           | 459            |       | LF   |
| S-603-S-B                | 22"X13" BRANCH CONNECTION INTO 58"X36" RCAP                       | 1              |       | EACH |
| S-603-S-B                | 15" BRANCH CONNECTION INTO 58"X36" RCAP                           | 1              |       | EACH |
| S-604-A                  | CASTINGS                                                          | 455            |       | LBS  |
| S-604-B                  | GRATINGS                                                          | 1515           |       | LBS  |
| S-609-B                  | CONCRETE CURB, TYPE HEADER                                        | 153            |       | LF   |
| S-609-D                  | COMBINATION CONCRETE CURB AND GUTTER, TYPE 1 MODIFIED             | 1858           |       | LF   |
| S-613-E                  | ADJUSTMENT OF MANHOLES                                            | 4              |       | UNIT |
| S-616-A                  | CONCRETE ISLAND PAVEMENT                                          | 13             |       | SY   |
| S-618-A                  | MAINTENANCE OF TRAFFIC                                            | LS             |       | LS   |
| S-618-B                  | ADDITIONAL CONSTRUCTION SIGNS                                     | 0              |       | SF   |
| S-621-B                  | 4" WIDE THERMOPLASTIC TRAFFIC STRIPE (CONTINUOUS WHITE) ( 90 MIL) | 0.011          |       | MI   |
| S-621-E-2                | 4" WIDE THERMOPLASTIC TRAFFIC STRIPE (CONTINUOUS YELLOW) (90 MIL) | 0.052          |       | MI   |
| S-621-H-2                | THERMOPLASTIC LEGEND, WHITE (120 MIL)                             | 664            |       | SF   |
| S-630-A                  | REFLECTORIZED TRAFFIC WARNING SIGN (ENCAPSULATED LENS)            | 4              |       | EACH |
| S-630-B                  | REFLECTORIZED TRAFFIC REGULATORY SIGN (ENCAPSULATED LENS)         | 2              |       | EACH |
|                          |                                                                   |                |       |      |
| EROSION CONTROL ITEMS    |                                                                   |                |       |      |
| S-233-A                  | TEMPORARY SILT FENCE (TYPE V)(AOS 0.21-0.43)                      | 500            |       | LF   |
|                          |                                                                   |                |       |      |
| NON-PARTICIPATING ITEMS: |                                                                   |                |       |      |
| PAY ITEM NO.             | PAY ITEM                                                          | TOTAL QUANTITY |       | UNIT |
|                          |                                                                   | PLAN           | FINAL |      |
| LANDSCAPING ITEMS        |                                                                   |                |       |      |
| 211-C                    | TOPSOIL FOR PLANT HOLES, CONTRACTOR FURNISHED                     | 190            |       | CY   |
| 212-B                    | STANDARD GROUND PREPARATION                                       | 725            |       | SY   |
| 216-B                    | SOLID SODDING, TIFWAY 419 HYBRID BERMUDA                          | 725            |       | SY   |
| 219-A                    | WATERING                                                          | 70             |       | KGAL |
| 230-A                    | SHRUB PLANTING, DWARF YAUPON HOLLY                                | 4              |       | EA   |
| 230-A                    | SHRUB PLANTING, PARSON JUNIPER                                    | 1053           |       | EA   |
| 230-A                    | SHRUB PLANTING, SUPER BLUE LIRIOPE                                | 27             |       | EA   |
| 230-B                    | TREE PLANTING, KV PURPLE PLUM                                     | 14             |       | EA   |
| 230-B                    | TREE PLANTING, LIVE OAK                                           | 8              |       | EA   |
| 230-B                    | TREE PLANTING, SIOUX CREPE MYRTLE                                 | 20             |       | EA   |
| 230-D                    | BED PREPARATION                                                   | 2400           |       | SF   |
| 232-A                    | FERTILIZER FOR WOODY PLANT MATERIAL, TABLET, 10 GRAM              | 1              |       | K    |
| 232-A                    | FERTILIZER FOR WOODY PLANT MATERIAL, TABLET, 21 GRAM              | 2              |       | K    |
| 233-A                    | TREE BARK MULCH                                                   | 18             |       | CY   |
| 233-C                    | PINE STRAW MULCH, BALE                                            | 75             |       | BALE |
| 282-A                    | REMOVE AND RELOCATE POP-UP SPRINKLER HEAD                         | 30             |       | EA   |
| S-608-A                  | CONCRETE SIDEWALK, WITHOUT REINFORCEMENT                          | 216            |       | SY   |

| NON-PARTICIPATING ITEMS: |                                                               |                |       |      |
|--------------------------|---------------------------------------------------------------|----------------|-------|------|
| PAY ITEM NO.             | PAY ITEM                                                      | TOTAL QUANTITY |       | UNIT |
|                          |                                                               | PLAN           | FINAL |      |
| LIGHTING ITEMS           |                                                               |                |       |      |
| 682-A                    | UNDERGROUND BRANCH CIRCUIT, AWG10, 3 CONDUCTOR                | 345            |       | LF   |
| 682-A                    | UNDERGROUND BRANCH CIRCUIT, AWG10, 3 CONDUCTOR (JACK OR BORE) | 160            |       | LF   |
| 683-B                    | LIGHTING ASSEMBLY, LOW MAST, 22-6-2-250 PER PLANS             | 4              |       | EA   |
| 684-A                    | POLE FOUNDATIONS, 24" DIAMETER                                | 3.76           |       | CY   |

① PER MS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2017 EDITION



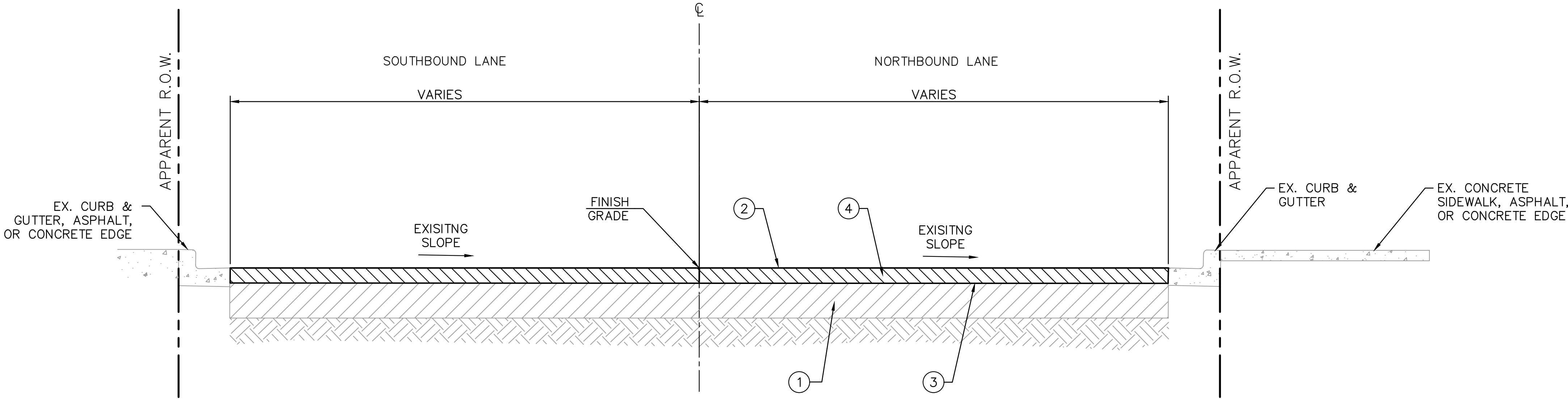
| INDEX     |                                                              |
|-----------|--------------------------------------------------------------|
| SHEET NO. | TITLE                                                        |
|           |                                                              |
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| 2-A       | TYPICAL SECTION WITHOUT MEDIAN SHEET                         |
| 2-B       | TYPICAL SECTION WITH MEDIAN SHEET                            |
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| 2-I       | CURB & GUTTER DESIGN ELEVATION SHEET                         |
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| 2-L       | 13'x13' JUNCTION BOX DRAINAGE DETAIL SHEET                   |
| 2-M       | 2'x6' BOX CULVERT DRAINAGE DETAIL SHEET                      |
| 2-N       | LANDSCAPING SHEET                                            |
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| 2-P       | ELECTRICAL DETAIL-1                                          |
| 2-Q       | ELECTRICAL DETAIL-2                                          |
| 2-R       | ELECTRICAL DETAIL-3                                          |
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| 2-T       | STRIPING DETAIL AND TRAFFIC SIGN SHEET                       |
| 2-U       | TRAFFIC CONTROL PLAN SHEET                                   |
| 6300      | PIPE CULVERT INSTALLATION SHEET                              |
| 6301      | CONCRETE PIPE COLLAR SHEET                                   |
| 6304      | JUNCTION BOX TYPE II FOR TRAFFIC LOAD SHEET                  |
| 6305      | BRANCH CONNECTIONS                                           |
| 6322      | STORM SEWER STRUCTURE TYPE SS-2                              |
| SDTCP-10  | HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS |
| SA-PSM-1  | PAVEMENT STRIPING AND MARKING                                |
| SA-TSP-1  | TRAFFIC SIGN PLACEMENT SHEET                                 |
| SD-SD-1   | DRIVEWAYS, CURB & GUTTER & SIDEWALKS                         |
| 3         | 31st AVENUE PLAN AND PROFILE SHEET                           |
| 3-A       | 31st AVENUE DRAINAGE PLAN & PROFILE SHEET                    |
| 4         | ALLEY DRAINAGE PLAN AND PROFILE SHEET                        |
|           |                                                              |



RATES OF APPLICATION USED FOR ESTIMATING QUANTITIES

| ITEM                             | RATE                         |
|----------------------------------|------------------------------|
| HOT MIX ASPHALT                  | 110 LBS./SQ. YD./1 IN. DEPTH |
| ASPHALT PRIMER COAT (EA - 1)     | 0.39 GAL./SQ. YD.            |
| COMMERCIAL FERTILIZER (13-13-13) | 1000 LBS/ACRE                |
| AMMONIUM NITRATE                 | 200 LBS/ACRE                 |
| VEGETATIVE MATERIALS FOR MULCH   | 2 TON/ACRE                   |

NOTE:  
THE AMMONIUM NITRATE IS TO BE APPLIED AFTER GRASS  
GROWTH IS ESTABLISHED



PROPOSED TYPICAL SECTION WITHOUT MEDIAN

NOT TO SCALE  
31ST AVENUE  
BOP STA. 20+26 TO STA. 21+86  
STA. 23+82 TO STA. 24+38  
STA. 26+33 TO EOP STA. 26+47.59

FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION

(2017) ADT = 1060 CURRENT  
(2027) ADT = 1272 n YEAR  
(2037) ADT = 1378 DESIGN  
DHV = 440  
D = 50% OF DHV  
T (TOTAL) = 1% OF ADT  
18K (FLEX) = 675/1000  
CBR = 5

REQUIRED STRUCTURE NUMBER

| 2037     | 2027     |
|----------|----------|
| ADL 4    | ADL 4    |
| CBR 5    | CBR 5    |
| SSV 3.72 | SSV 3.72 |
| PT 2.5   | PT 2.5   |
| SN 2.24  | SN 1.98  |

- 1 EX. ASPHALT PAVEMENT - 12" THICKNESS
- 2 2" HOT MIX ASPHALT, ST, 9.5mm, REQ'D
- 3 TACK COAT REQ'D.
- 4 2" COLD MILL EX. ASPHALT SURFACE, REQ'D.

GENERAL NOTES

EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE APPLIED ON  
DISTURBED AREAS INDICATED ( ~~XXX~~ ) OR AS REQUIRED BY THE  
STORM WATER POLLUTION PREVENTION PLAN.

CLEARING AND GRUBBING OF CONSTRUCTION EASEMENTS SHALL BE  
CONSIDERED AS NORMAL RIGHT-OF-WAY AND PAID FOR BY LUMP  
SUM.

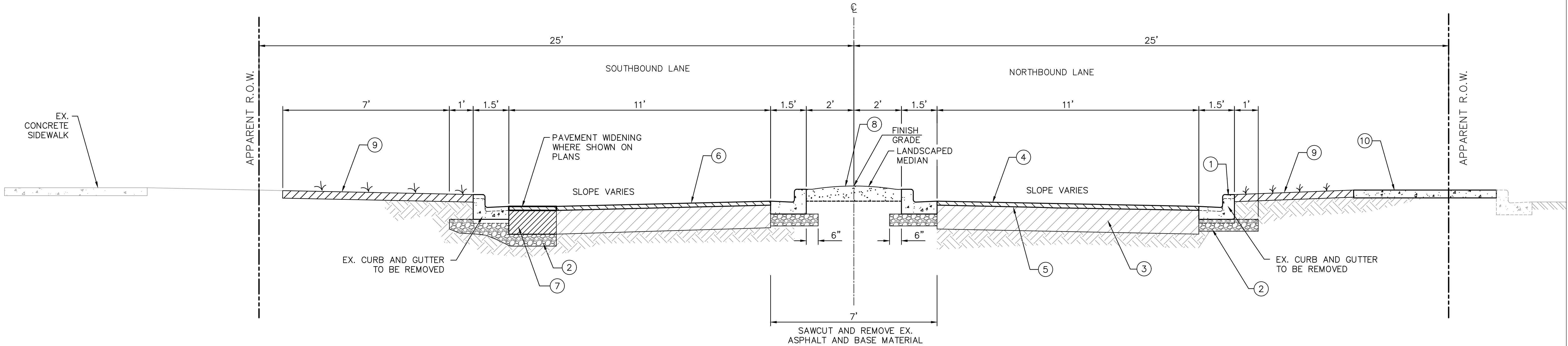
BEFORE FINAL ACCEPTANCES, THE ENTIRE RIGHT-OF-WAY SHALL BE  
MOWED BY THE CONTRACTOR AT NO COST TO THE PROJECT.

SCHEDULE OF STRUCTURE THICKNESS

| STATION TO STATION | ESTIMATED<br>SUBGRADE CBR | SOIL SUPPORT<br>VALUE | AVERAGE DAILY<br>LANE LOADING | STRUCTURE<br>NUMBER REQ'D | SUB BASE |    | EX. ASPHALT |      | 9.5MM ASPHALT |      | TOTAL |      |
|--------------------|---------------------------|-----------------------|-------------------------------|---------------------------|----------|----|-------------|------|---------------|------|-------|------|
|                    |                           |                       |                               |                           | IN.      | SN | IN.         | SN   | IN.           | SN   | IN.   | SN   |
| 20+26 TO 21+86     | 5                         | 3.72                  | 4                             | 1.98                      | -        | -  | 12          | 5.28 | 2             | 0.88 | 14    | 6.16 |
| 23+82 TO 24+38     | 5                         | 3.72                  | 4                             | 1.98                      | -        | -  | 12          | 5.28 | 2             | 0.88 | 14    | 6.16 |
| 26+33 TO 26+48     | 5                         | 3.72                  | 4                             | 1.98                      | -        | -  | 12          | 5.28 | 2             | 0.88 | 14    | 6.16 |

TYPICAL SECTION WITHOUT MEDIAN SHEET





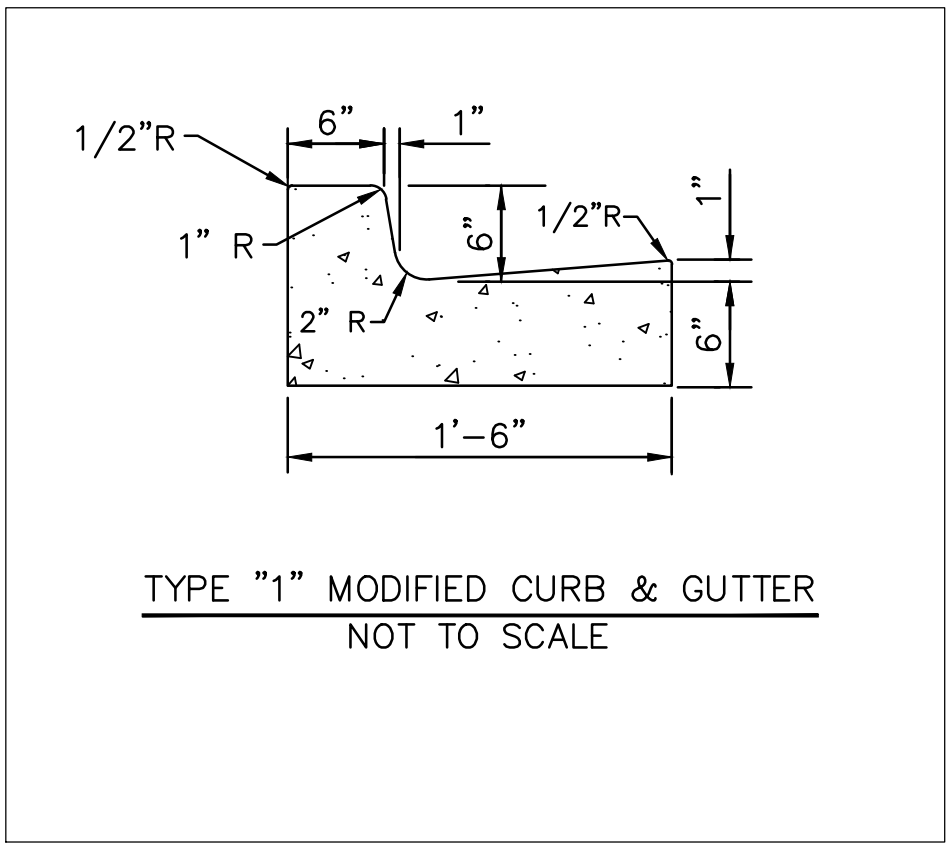
PROPOSED TYPICAL SECTION W/ MEDIAN

NOT TO SCALE  
31ST AVENUE - LOOKING NORTH  
STA. 21+86 TO STA. 23+82  
STA. 24+38 TO STA. 26+33

FLEXIBLE PAVEMENT DESIGN

| DATA FOR PAVEMENT DETERMINATION |
|---------------------------------|
| (2017) ADT = 1060 CURRENT       |
| (2027) ADT = 1272 n YEAR        |
| (2037) ADT = 1378 DESIGN        |
| DHV = 440                       |
| D = 50% OF DHV                  |
| T (TOTAL) = 1% OF ADT           |
| 18K (FLEX) = 675/1000           |
| CBR = 5                         |

| REQUIRED STRUCTURE NUMBER |      |      |      |
|---------------------------|------|------|------|
| 2037                      |      | 2027 |      |
| ADL                       | 4    | ADL  | 4    |
| CBR                       | 5    | CBR  | 5    |
| SSV                       | 3.72 | SSV  | 3.72 |
| PT                        | 2.5  | PT   | 2.5  |
| SN                        | 2.24 | SN   | 1.98 |



- 1 TYPE 1 MODIFIED CONCRETE CURB AND GUTTER REQ'D.
- 2 6" CRUSHED STONE, 610, REQ'D.
- 3 EX. ASPHALT PAVEMENT 12"-18" THICK
- 4 COLD MILL EX. ASPHALT AS INDICATED ON PLANS TO PROVIDE FOR MINIMUM 2" OVERLAY, REQ'D.
- 5 TACK COAT, REQ'D.
- 6 2" HOT MIX ASPHALT, ST. 9.5mm, REQ'D.
- 7 12" HOT MIX ASPHALT, ST. 25mm, TRENCH WIDENING PLACED IN (4) 3" THICK COMPACTED LIFTS, REQ'D.
- 8 6" MIN. THICK TOPSOIL REQ'D.
- 9 SOLID SOD
- 10 4" THICK CONCRETE SIDEWALK WITHOUT REINFORCEMENT SEE PLAN SHEETS FOR WIDTH. TO BE SCORED 1" DEEP LATERALLY ON 8' CENTERS.

| SCHEDULE OF STRUCTURE THICKNESS |                        |                    |                            |                        |          |     |             |      |               |      |              |      |       |      |
|---------------------------------|------------------------|--------------------|----------------------------|------------------------|----------|-----|-------------|------|---------------|------|--------------|------|-------|------|
| STATION TO STATION              | ESTIMATED SUBGRADE CBR | SOIL SUPPORT VALUE | AVERAGE DAILY LANE LOADING | STRUCTURE NUMBER REQ'D | SUB BASE |     | EX. ASPHALT |      | 9.5MM ASPHALT |      | 25MM ASPHALT |      | TOTAL |      |
|                                 |                        |                    |                            |                        | IN.      | SN  | IN.         | SN   | IN.           | SN   | IN.          | SN   | IN.   | SN   |
| 21+86 TO 23+82                  | 5                      | 3.72               | 4                          | 1.98                   | —        | —   | 6           | 2.64 | 2             | 0.88 | —            | —    | 8     | 3.52 |
| 24+38 TO 26+33                  | 5                      | 3.72               | 4                          | 1.98                   | —        | —   | 12          | 5.28 | 2             | 0.88 | —            | —    | 14    | 6.16 |
| 21+86 TO 23+82<br>WIDENING      | 5                      | 3.72               | 4                          | 1.98                   | 6        | .84 | —           | —    | 2             | 0.88 | 12           | 5.28 | 20    | 7.00 |
| 24+38 TO 26+33<br>WIDENING      | 5                      | 3.72               | 4                          | 1.98                   | 6        | .84 | —           | —    | 2             | 0.88 | 12           | 5.28 | 20    | 7.00 |

GENERAL NOTES

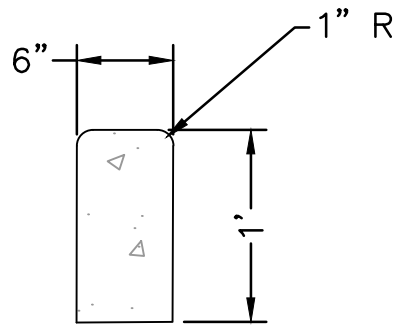
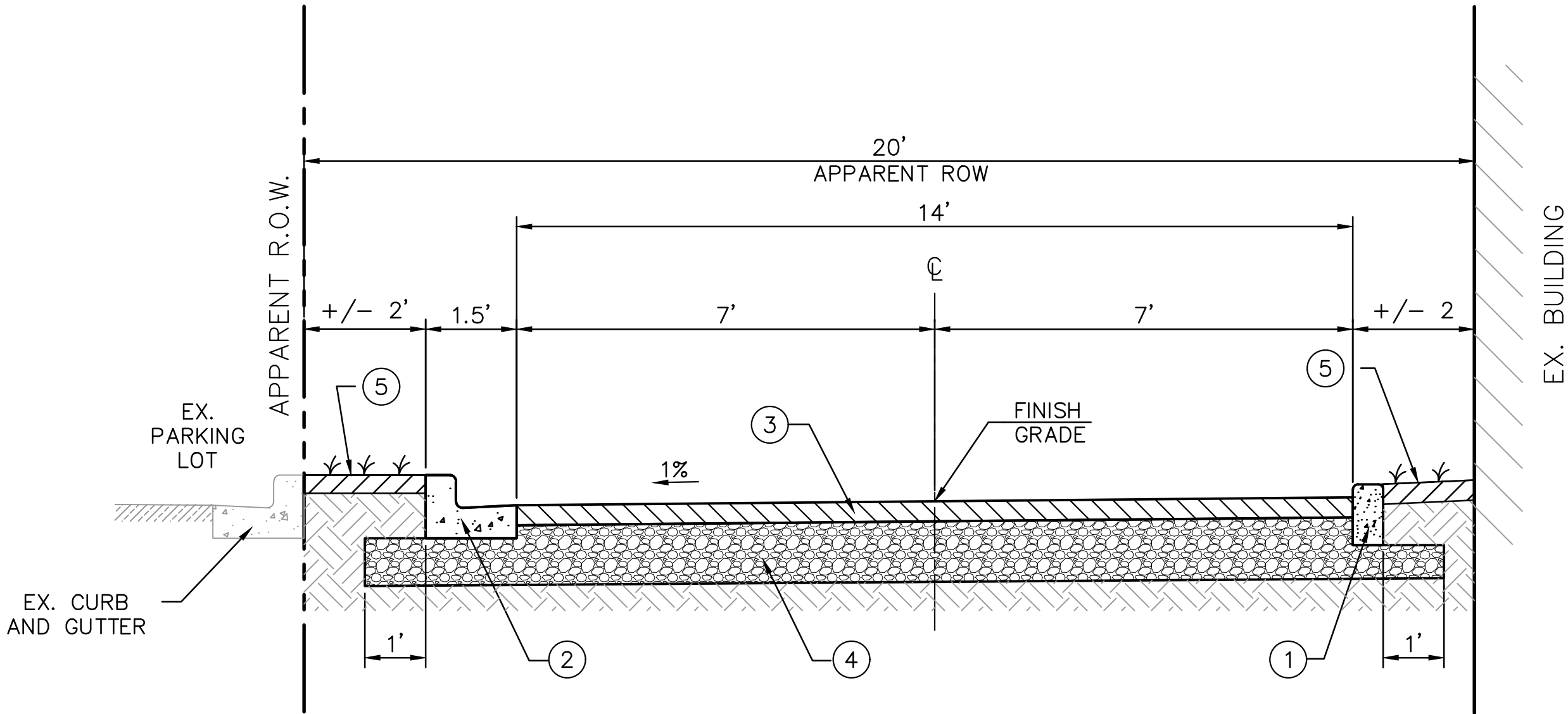
EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE APPLIED ON DISTURBED AREAS INDICATED ( *XXX* ) OR AS REQUIRED BY THE STORM WATER POLLUTION PREVENTION PLAN.

CLEARING AND GRUBBING OF CONSTRUCTION EASEMENTS SHALL BE CONSIDERED AS NORMAL RIGHT-OF-WAY AND PAID FOR BY LUMP SUM.

BEFORE FINAL ACCEPTANCES, THE ENTIRE RIGHT-OF-WAY SHALL BE MOWED BY THE CONTRACTOR AT NO COST TO THE PROJECT.



- ① CONCRETE HEADER CURB REQ'D. SEE DETAIL THIS SHEET.
- ② TYPE 1 MODIFIED CONCRETE CURB AND GUTTER, REQ'D. (SEE SH. NO. 2B FOR DETAIL).
- ③ 4" HOT MIX ASPHALT, ST, 9.5mm PLACED IN (2) 2" LIFTS, REQ'D.
- ④ 8" OF CRUSHED STONE, 610, REQ'D.
- ⑤ SOLID SOD



DETAIL OF HEADER CURB  
NOT TO SCALE

PROPOSED TYPICAL SECTION

NOT TO SCALE  
ALLEY - LOOKING EAST  
STA. 10+34 TO STA. 11+82.27

FLEXIBLE PAVEMENT DESIGN

| DATA FOR PAVEMENT DETERMINATION |
|---------------------------------|
| (2017) ADT = 1060 CURRENT       |
| (2027) ADT = 1272 n YEAR        |
| (2037) ADT = 1378 DESIGN        |
| DHV = 440                       |
| D = 50% OF DHV                  |
| T (TOTAL) = 1% OF ADT           |
| 18K (FLEX) = 675/1000           |
| CBR = 5                         |

| REQUIRED STRUCTURE NUMBER |      |      |      |
|---------------------------|------|------|------|
| 2037                      |      | 2027 |      |
| ADL                       | 4    | ADL  | 4    |
| CBR                       | 5    | CBR  | 5    |
| SSV                       | 3.72 | SSV  | 3.72 |
| PT                        | 2.5  | PT   | 2.5  |
| SN                        | 2.24 | SN   | 1.98 |

GENERAL NOTES

EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE APPLIED ON DISTURBED AREAS INDICATED (VVV) OR AS REQUIRED BY THE STORM WATER POLLUTION PREVENTION PLAN.

CLEARING AND GRUBBING OF CONSTRUCTION EASEMENTS SHALL BE CONSIDERED AS NORMAL RIGHT-OF-WAY AND PAID FOR BY LUMP SUM.

BEFORE FINAL ACCEPTANCES, THE ENTIRE RIGHT-OF-WAY SHALL BE MOWED BY THE CONTRACTOR AT NO COST TO THE PROJECT.

SCHEDULE OF STRUCTURE THICKNESS

| STATION TO STATION | ESTIMATED SUBGRADE CBR | SOIL SUPPORT VALUE | AVERAGE DAILY LANE LOADING | STRUCTURE NUMBER REQ'D | SUB BASE |      | 9.5MM ASPHALT |      | TOTAL |      |
|--------------------|------------------------|--------------------|----------------------------|------------------------|----------|------|---------------|------|-------|------|
|                    |                        |                    |                            |                        | IN.      | SN   | IN.           | SN   | IN.   | SN   |
| 10+34 TO 11+82.27  | 5                      | 3.72               | 4                          | 1.98                   | 8        | 1.12 | 4             | 1.76 | 12    | 2.88 |



| PIPE CULVERT SCHEDULE |                            |                                    |      |      |      |      |                                         |         |         |         |                                 |       |        |                                   |
|-----------------------|----------------------------|------------------------------------|------|------|------|------|-----------------------------------------|---------|---------|---------|---------------------------------|-------|--------|-----------------------------------|
| SHEET NO.             | LOCATION                   | REINFORCED CONCRETE PIPE CLASS III |      |      |      |      | REINFORCED CONCRETE ARCH PIPE CLASS III |         |         |         | REINFORCED CONCRETE BOX CULVERT |       |        | REMARKS                           |
|                       |                            | 15"                                | 18"  | 24"  | 36"  | 42"  | 22"x13"                                 | 29"x18" | 44"x27" | 58"x36" | 2'x6'                           | CONC. | REINF. |                                   |
|                       | ALLEY                      |                                    |      |      |      |      |                                         |         |         |         |                                 |       |        |                                   |
| 4                     | STA 9+88 – STA 11+24 LT.   |                                    |      |      |      |      |                                         |         | 137     |         |                                 |       |        | J2 TO J3                          |
| 4                     | STA 11+28 – STA 11+64 LT.  |                                    |      |      |      |      |                                         |         |         | 36      | 16.38                           | 3257  |        | J2 TO J1 – SEE DETAIL ON SHEET 2M |
|                       |                            |                                    |      |      |      |      |                                         |         |         |         |                                 |       |        |                                   |
|                       | 31 ST AVE.                 |                                    |      |      |      |      |                                         |         |         |         |                                 |       |        |                                   |
| 3–A                   | STA 21+66 – STA 21+86 LT.  | 20                                 |      |      |      |      |                                         |         |         |         |                                 |       |        | EXIST. INLET TO J3                |
| 3–A                   | STA 21+92 – STA 25+14 LT.  |                                    |      |      |      |      |                                         |         | 322     |         |                                 |       |        | J3 TO S3                          |
| 3–A                   | STA 23+69 LT.              |                                    |      |      |      |      | 12                                      |         |         |         |                                 |       |        | BC1 TO S1                         |
| 3–A                   | STA 23+69 LT.              |                                    |      |      |      |      | 16                                      |         |         |         |                                 |       |        | S1 TO S2                          |
| 3–A                   | STA 23+73 LT.              | 4                                  |      |      |      |      |                                         |         |         |         | 0.26                            |       |        | 15" PIPE COLLAR TO BC2            |
| 3–A                   | STA 25+17 LT.              |                                    |      |      |      |      | 32                                      |         |         |         |                                 |       |        | S3 TO S4                          |
| 3–A                   | STA 25+19 TO STA 26+22 LT. |                                    |      |      |      |      |                                         |         | 103     |         |                                 |       |        | S3 TO S5                          |
| 3–A                   | STA 26+26 TO STA 26+44 LT. |                                    |      |      |      |      |                                         | 17      |         |         |                                 |       |        | S5 TO J4                          |
|                       |                            |                                    |      |      |      |      |                                         |         |         |         |                                 |       |        |                                   |
|                       | UNITS                      | L.F.                               | L.F. | L.F. | L.F. | L.F. | L.F.                                    | L.F.    | L.F.    | L.F.    | CU.YD.                          | LB.   |        |                                   |
|                       | TOTAL                      | 24                                 |      |      |      |      | 60                                      | 17      | 103     | 459     | 36                              | 16.64 | 3257   |                                   |

| JUNCTION BOX SCHEDULE |              |              |                              |                              |                              |                              |                       |                       |                      |                                                   |                           |          |         |         |         |          |         |         |          |                    |                    |         |                                |
|-----------------------|--------------|--------------|------------------------------|------------------------------|------------------------------|------------------------------|-----------------------|-----------------------|----------------------|---------------------------------------------------|---------------------------|----------|---------|---------|---------|----------|---------|---------|----------|--------------------|--------------------|---------|--------------------------------|
| SHT. NO.              | LOCATION     | JCT. BOX NO. | SIDE 1<br>PIPE SIZE/<br>SKEW | SIDE 2<br>PIPE SIZE/<br>SKEW | SIDE 3<br>PIPE SIZE/<br>SKEW | SIDE 4<br>PIPE SIZE/<br>SKEW | SIDE<br>W1-3<br>(IN.) | SIDE<br>W2-4<br>(IN.) | HEIGHT<br>H<br>(IN.) | CLASS "B" CONC.<br>MINOR STRUCTURES<br>(CU. YDS.) | REINF.<br>STEEL<br>(LBS.) | BAR LIST |         |         |         |          |         |         |          | CASTINGS<br>(LBS.) | GRATINGS<br>(LBS.) | REMARKS |                                |
|                       |              |              |                              |                              |                              |                              |                       |                       |                      |                                                   |                           | A1       | A2      | A3      | A4      | B        | C       | D       | E        |                    |                    |         | F                              |
|                       | ALLEY        |              |                              |                              |                              |                              |                       |                       |                      |                                                   |                           |          |         |         |         |          |         |         |          |                    |                    |         |                                |
| 4                     | 11+70.34 LT. | J1           | 2'X4' BOX/36                 | 2'X6'/0                      | 30"/25 & 24"/0               | 10"/6                        | 156                   | 156                   | 42                   | 10.94                                             | 2287                      | _____    | _____   | _____   | _____   | _____    | _____   | _____   | _____    | _____              | 60                 | 1515    | SEE DESIGN DETAILS ON SHEET 2L |
| 4                     | 11+26.44 LT. | J2           | 2'x6'/0                      | -----                        | 58x36/0                      | -----                        | 113                   | 60                    | 55                   | 4.50                                              | 231                       | 2 @ 60"  | -----   | 2 @ 60" | -----   | 2 @ 107" | 2 @ 54" | 4 @ 49" | 28 @ 56" | 16 @ 109"          |                    |         |                                |
|                       |              |              |                              |                              |                              |                              |                       |                       |                      |                                                   |                           |          |         |         |         |          |         |         |          |                    |                    |         |                                |
|                       | 31 ST AVE.   |              |                              |                              |                              |                              |                       |                       |                      |                                                   |                           |          |         |         |         |          |         |         |          |                    |                    |         |                                |
| 3-A                   | 21+89 LT.    | J3           | 58X36/0                      | 15/0                         | -----                        | 58X36/0                      | 93                    | 93                    | 58                   | 5.47                                              | 270                       | 2 @ 51"  | 2 @ 51" | -----   | 2 @ 51" | 2 @ 87"  | 2 @ 87" | 4 @ 52" | 22 @ 89" | 22 @ 89"           |                    |         |                                |
| 3-A                   | 26+45.59 LT. | J4           | 29X18/0                      | 18/0                         | 22X13/0                      | -----                        | 60                    | 60                    | 31                   | 1.92                                              | 133                       | 2 @ 54"  | 2 @ 35" | 2 @ 35" | -----   | 2 @ 54"  | 2 @ 54" | 4 @ 25" | 16 @ 56" | 16 @ 56"           |                    |         |                                |
|                       |              |              |                              |                              |                              |                              |                       |                       |                      |                                                   |                           |          |         |         |         |          |         |         |          |                    |                    |         |                                |
| TOTALS                |              |              |                              |                              |                              |                              |                       |                       |                      | 22.83                                             | 2921                      |          |         |         |         |          |         |         |          |                    |                    |         |                                |

| SS-2 STORM WATER INLET SCHEDULE |     |           |            |           |           |            |            |      |      |                             |       |       |                   |                  |          |              |
|---------------------------------|-----|-----------|------------|-----------|-----------|------------|------------|------|------|-----------------------------|-------|-------|-------------------|------------------|----------|--------------|
| SHEET NO.                       | NO. | STATION   | ELEVATIONS |           |           |            | INLET SIZE |      |      | NO. & SIZE OF PIPE OPENINGS |       |       | CONCRETE CU. YDS. | RENF. STEEL LBS. | CASTINGS | ST. STD. NO. |
|                                 |     |           | TOP CURB   | INVERT IN | INVERT IN | INVERT OUT | "L"        | "W"  | "H"  | IN                          | IN    | OUT   |                   |                  |          |              |
|                                 |     |           |            |           |           |            |            |      |      |                             |       |       |                   |                  |          |              |
| 3-A                             | S1  | 23+69.49L | 208.10     | 204.20    | -----     | 204.00     | 5.00       | 2.50 | 4.60 | 22X13                       | ----- | 22X13 | 2.29              | 215              | 79       | 6322         |
| 3-A                             | S2  | 23+69.49R | 207.30     | -----     | -----     | 204.30     | 5.00       | 2.50 | 3.50 | -----                       | ----- | 22X13 | 1.94              | 190              | 79       | 6322         |
| 3-A                             | S3  | 25+16L    | 206.90     | 203.23    | 203.23    | 202.81     | 5.00       | 8.00 | 4.59 | 22X13                       | 44X27 | 58X36 | 3.74              | 282              | 79       | 6322         |
| 3-A                             | S4  | 25+16R    | 207.10     | -----     | -----     | 203.70     | 5.00       | 2.50 | 3.90 | -----                       | ----- | 22X13 | 2.07              | 201              | 79       | 6322         |
| 3-A                             | S5  | 26+25L    | 207.26     | 204.05    | -----     | 203.72     | 5.00       | 5.00 | 4.04 | 29X18                       | ----- | 44X27 | 2.73              | 232              | 79       | 6322         |
|                                 |     |           |            |           |           |            |            |      |      |                             |       |       |                   |                  |          |              |
| TOTALS                          |     |           |            |           |           |            |            |      |      |                             |       |       | 12.77             | 1120             | 395      |              |
| UNITS                           |     |           |            |           |           |            |            |      |      |                             |       |       | CU. YDS.          | LBS              | LBS      |              |



| REMOVAL OF ASPHALT PAVEMENT |                |              |                 |
|-----------------------------|----------------|--------------|-----------------|
| SHT. NO.                    | STATION        | AREA SQ. YD. | REMARKS         |
| 3                           | 21+05 TO 23+82 | 293          | ROAD AND MEDIAN |
| 3                           | 22+06 TO 22+67 | 4            | EDGE RT.        |
| 3                           | 24+37 TO 26+32 | 171          | CENTER MEDIAN   |
| 3                           | 24+72 TO 25+09 | 6            | EDGE LT.        |
| 3                           | 25+20 TO 26+29 | 33           | EDGE LT.        |
| 4                           | 10+15 TO 11+82 | 322          | ALLEY PAVEMENT  |
| TOTAL                       |                | 829 SQ. YD.  |                 |

| ASPHALT MILLING – 2” DEEP |                |              |                                  |
|---------------------------|----------------|--------------|----------------------------------|
| SHT. NO.                  | STATION        | AREA SQ. YD. | REMARKS                          |
| 3                         | 20+26 TO 21+66 | 536          | ENTIRE ASPHALT SURFACE           |
| 3                         | 23+92 TO 24+29 | 41           | SO. MISS DRIVE TIE RT., 10’ WIDE |
| 3                         | 24+63 TO 25+51 | 52           | 31ST AVE. LEFT EDGE, 6’ WDE      |
| 3                         | 26+38 TO 26+48 | 47           | PEARL STREET TIE, 10’ WIDE       |
| TOTAL                     |                | 676 SQ. YD.  |                                  |

| REMOVAL OF CONCRETE PAVEMENT AND SIDEWALK |                |              |                    |
|-------------------------------------------|----------------|--------------|--------------------|
| SHT. NO.                                  | STATION        | AREA SQ. YD. | REMARKS            |
| 3                                         | 21+86 TO 21+98 | 8            | SIDEWALK LT.       |
| 3                                         | 23+67 TO 24+57 | 101          | DRIVEWAY LT.       |
| 3                                         | 23+80 TO 23+90 | 6            | SIDEWALK RT.       |
| 3                                         | 24+28 TO 24+36 | 9            | PAVEMENT RT.       |
| 3                                         | 24+31 TO 26+45 | 130          | SIDEWALK RT.       |
| 3                                         | 25+09 TO 25+21 | 6            | PAVEMENT LT.       |
| 3                                         | 26+40 TO 26+48 | 8            | PAVEMENT RT.       |
| 4                                         | 11+19 TO 11+38 | 3            | PAVEMENT RT. ALLEY |
| 4                                         | 11+72 TO 11+80 | 5            | SIDEWALK LT. ALLEY |
| TOTAL                                     |                | 276 SQ. YD.  |                    |

| REMOVAL OF CURB AND GUTTER |                |                 |           |
|----------------------------|----------------|-----------------|-----------|
| SHT. NO.                   | STATION        | LENGTH LIN. FT. | REMARKS   |
| 3                          | 20+25 to 20+44 | 19              | RT.       |
| 3                          | 22+77 TO 23+91 | 132             | RT.       |
| 3                          | 24+30          | 12              | RT.       |
| 3                          | 24+35 TO 26+36 | 200             | RT.       |
| 3                          | 26+17 TO 26+31 | 14              | LT.       |
| 3                          | 26+45          | 15              | RT.       |
| 4                          | 11+72 TO 11+80 | 13              | LT. ALLEY |
|                            |                |                 |           |
| TOTAL                      |                | 405 LIN. FT.    |           |

| INLET REMOVAL |           |                |         |
|---------------|-----------|----------------|---------|
| SHT. NO.      | STATION   | SIZE L X W X H | REMARKS |
| 3             | 22+79 LT. | 4 X 4 X 3      |         |
| 3             | 23+73 LT. | 6 X 5 X 3      |         |
| 3             | 23+85 RT. | 7 X 4 X 4      |         |
| 3             | 24+67 LT. | 3 X 3 X 3      |         |
| 3             | 25+15 LT. | 6 X 4 X 4      |         |
| 3             | 25+16 LT. | 5 X 5 X 4      |         |
| 3             | 25+18 RT. | 7 X 4 X 5      |         |
| 3             | 26+45 LT. | 5 X 4 X 4      |         |
| 4             | 11+71 LT. | 13 X 11 X 3    | ALLEY   |
| TOTAL         |           | 9 EACH         |         |

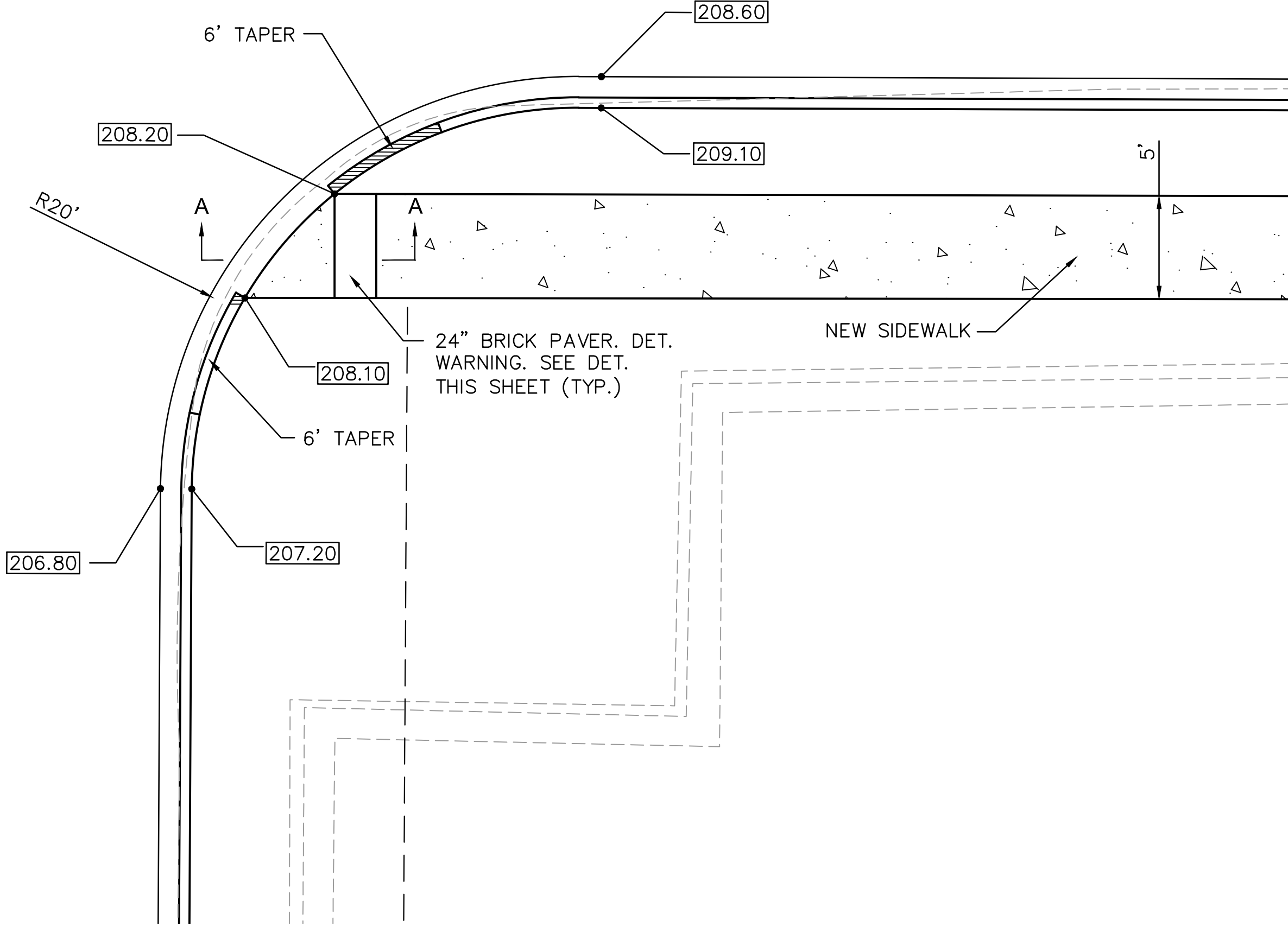
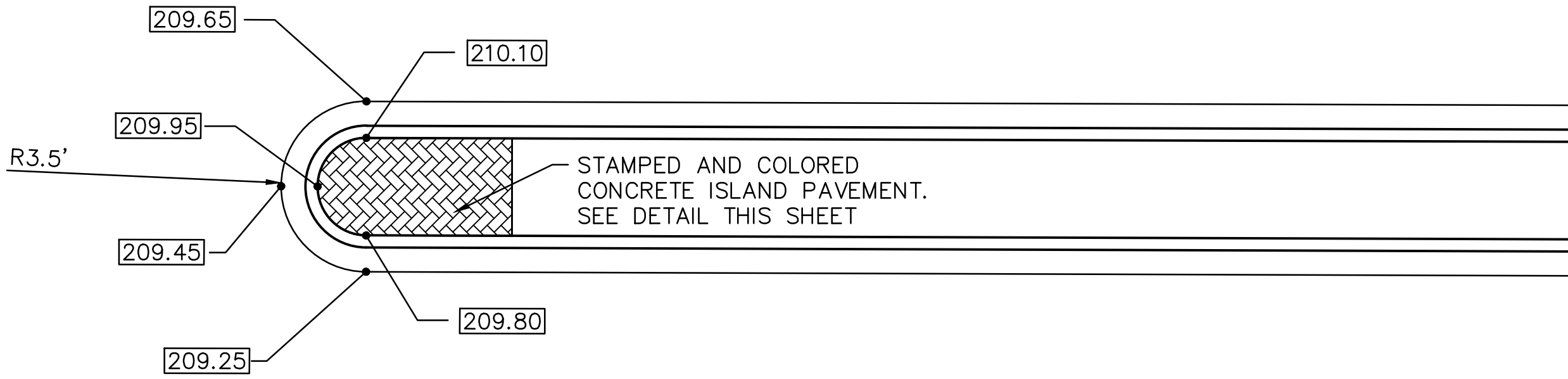
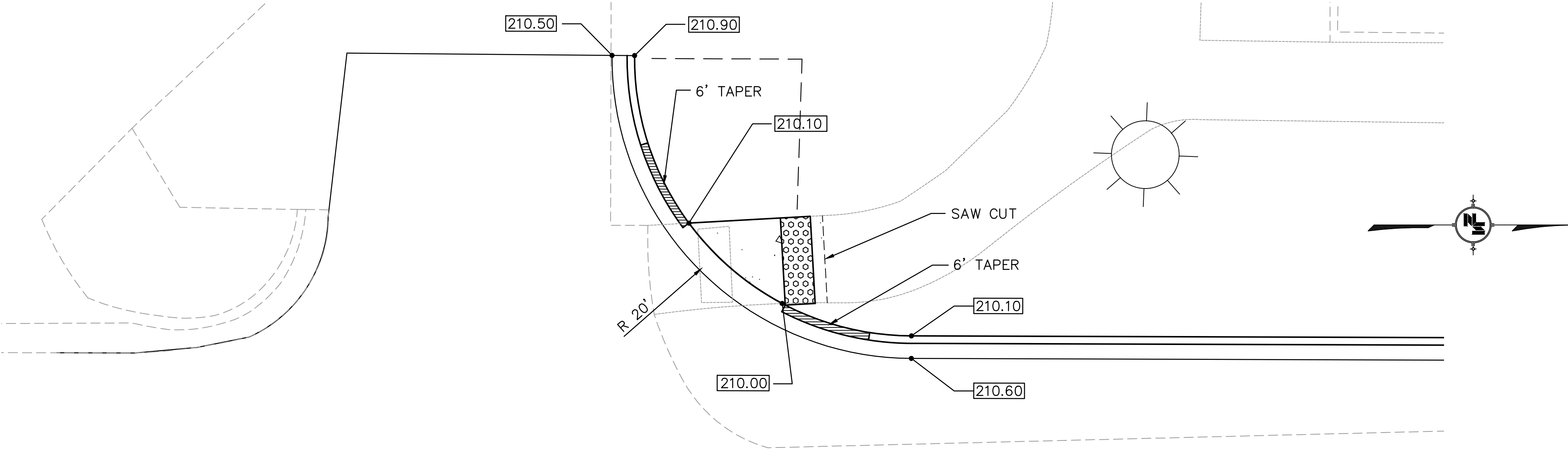
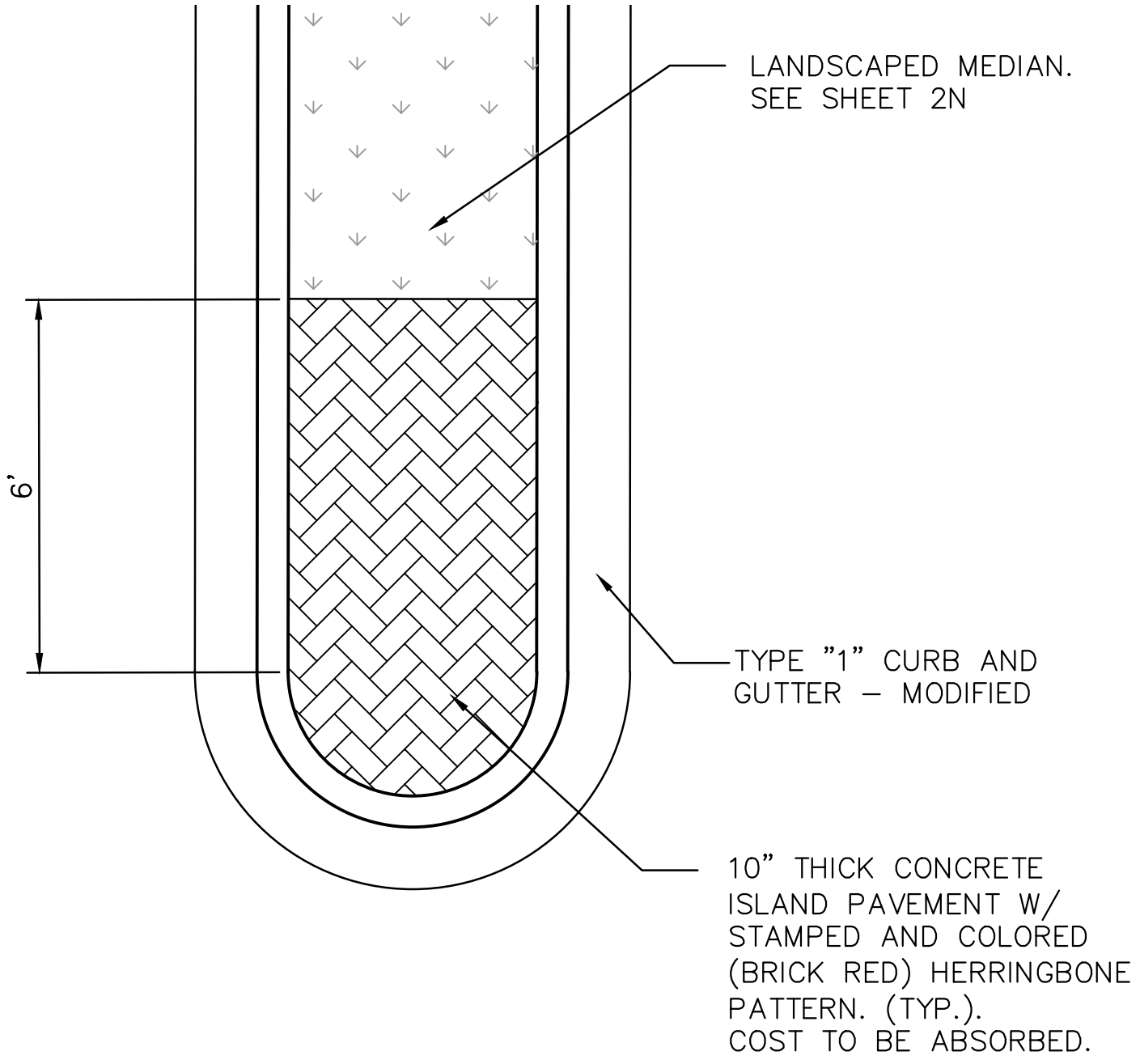
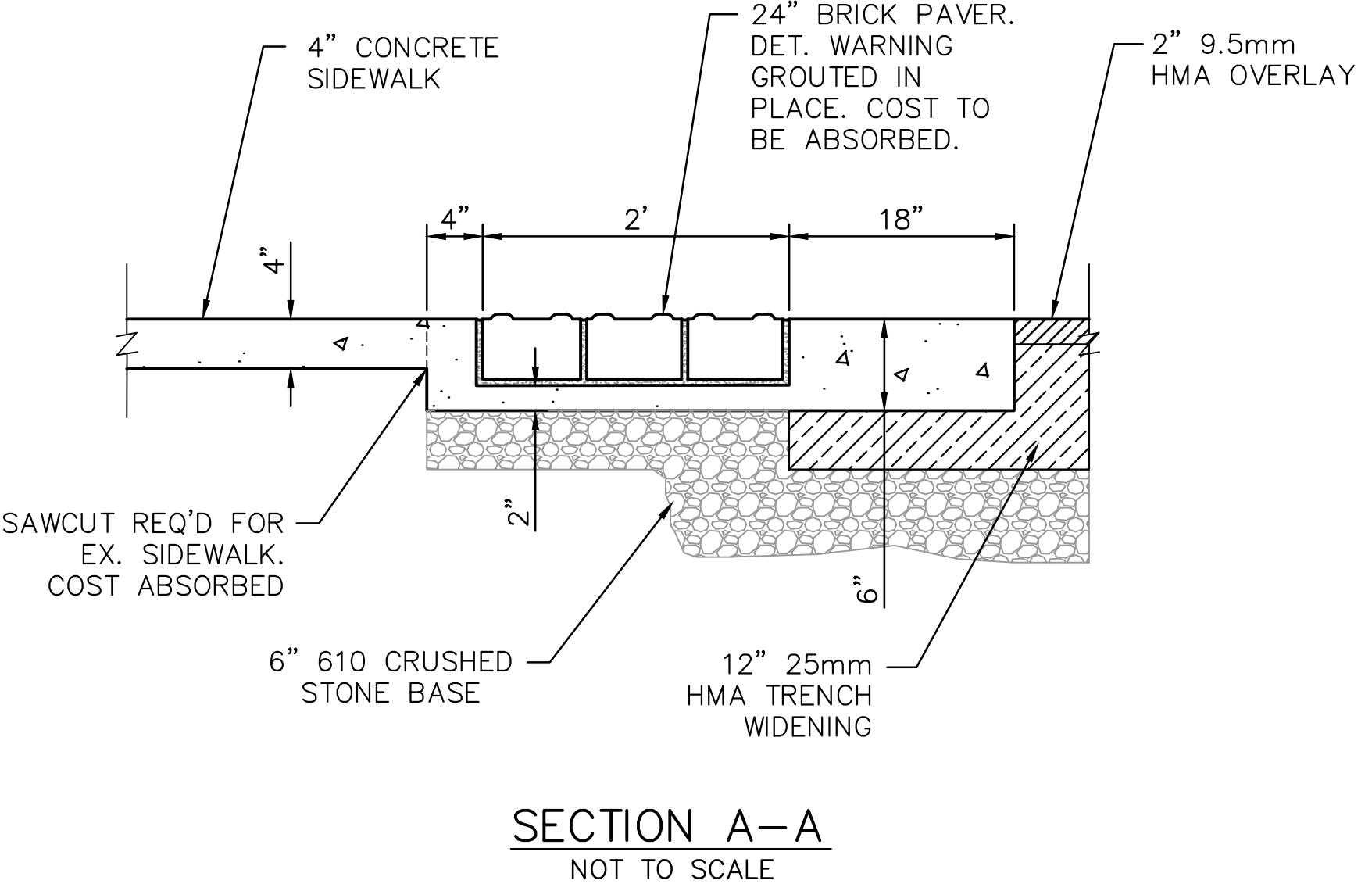
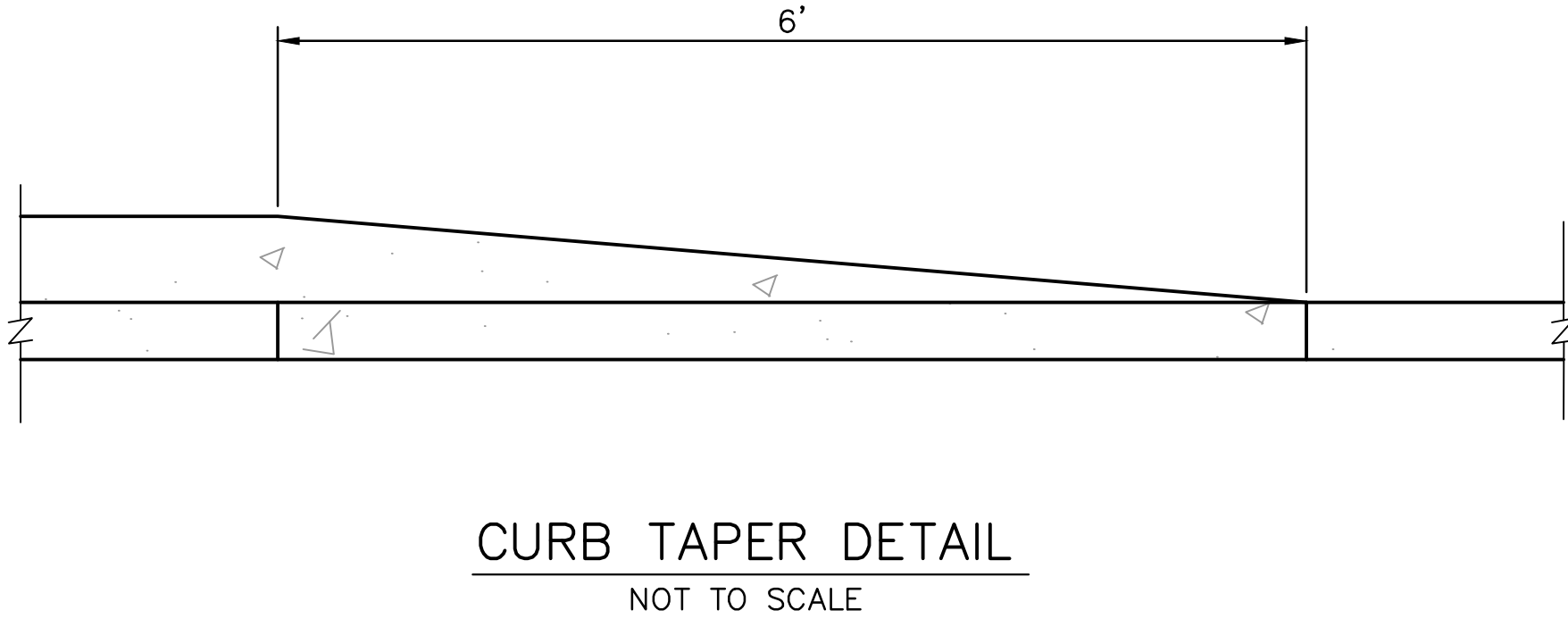
| PIPE REMOVAL |                |             |              |           |
|--------------|----------------|-------------|--------------|-----------|
| SHT. NO.     | STATION        | SIZE & TYPE | LIN. FT.     | REMARKS   |
| 3            | 21+66 TO 22+77 | 10” RCP     | 110          | LT.       |
| 3            | 22+80 TO 23+73 | 15” RCP     | 93           | LT.       |
| 3            | 23+75 TO 23+86 | 15” RCP     | 46           | LT. & RT. |
| 3            | 24+69 TO 25+15 | 12” RCP     | 45           | LT.       |
| 3            | 25+20 TO 26+44 | 18” RCP     | 123          | LT.       |
| 3            | 25+14          | 24” RCP     | 47           | X-DRAIN   |
| 3            | 25+18          | 18” RCP     | 30           | X-DRAIN   |
| TOTAL        |                |             | 494 LIN. FT. |           |

| ASPHALT AND CRUSHED STONE |                    |                                 |              | PAVEMENT STRUCTURE |         |               |      |                |      |
|---------------------------|--------------------|---------------------------------|--------------|--------------------|---------|---------------|------|----------------|------|
| SHT. NO.                  | STATION            | TYPE                            | AREA SQ. FT. | SIZE 610 STONE     |         | 25 MM ASPHALT |      | 9.5 MM ASPHALT |      |
|                           |                    |                                 |              | INCHES             | CU. YD. | INCHES        | TONS | INCHES         | TONS |
| 3                         | 20+26 TO 26+48     | 2” OVERLAY                      | 20345        | –                  | –       | –             | –    | 2              | 249  |
| 3                         | 21+85 TO 26+48     | STONE UNDER CURB                | 3855         | 6                  | 71      | –             | –    | –              | –    |
| 3                         | 21+66 TO 24+72 LT. | WIDENING/TRENCH                 | 3045         | 6                  | 56      | 12            | 223  | –              | –    |
| 3                         | 23+70 RT.          | PIPE TRENCH                     | 94           | 6                  | 2       | 12            | 7    | –              | –    |
| 3                         | 23+74 TO 23+92 RT. | WDENING TURN OUT                | 87           | 6                  | 2       | 12            | 6    | –              | –    |
| 3                         | 24+25 TO 26+00 RT. | EXTRA DEPTH                     | 214          | –                  | –       | –             | –    | 2              | 24   |
| 3                         | 24+28 TO 24+44 RT. | WIDENING TURN OUT               | 92           | 6                  | 2       | 12            | 7    | –              | –    |
| 3                         | 24+75 TO 26+00 LT. | EXTRA DEPTH                     | 153          | –                  | –       | –             | –    | 1              | 8    |
| 3                         | 25+09 TO 25+45 LT. | WIDENING/TRENCH                 | 121          | 6                  | 2       | 12            | 9    | –              | –    |
| 3                         | 25+17 RT.          | PIPE TRENCH                     | 92           | 6                  | 2       | 12            | 7    | –              | –    |
| 3                         | 26+26 TO 26+48 LT. | WIDENING/TRENCH                 | 109          | 6                  | 1       | 12            | 5    | –              | –    |
| 3                         | 26+25 TO 26+48 RT. | WDENING TURN OUT                | 149          | 6                  | 2       | 12            | 7    | –              | –    |
| 4                         | 10+16 TO 11+81     | ALLEY PAVEMENT                  | 2541         | –                  | –       | –             | –    | 4              | 62   |
| 4                         | 10+16 TO 11+81     | ALLEY STONE                     | 3855         | 8                  | 96      | –             | –    | –              | –    |
|                           |                    | SIZE 610 CRUSHED STONE – TOTAL  |              | 236 CU. YD         |         |               |      |                |      |
|                           |                    | 25 MM ASPHALT PAVEMENT – TOTAL  |              | 271 TONS           |         |               |      |                |      |
|                           |                    | 9.5 MM ASPHALT PAVEMENT – TOTAL |              | 343 TONS           |         |               |      |                |      |

| SIDE WALK |                      |              |             |
|-----------|----------------------|--------------|-------------|
| SHT. NO.  | STATION              | AREA SQ. YD. | REMARKS     |
| 3         | 21+89.58 TO 22+84.28 | 51           | RT.         |
| 3         | 21+90 TO 21+98       | 4            | LT.         |
| 3         | 23+81 TO 23+88       | 3            | RT.         |
| 3         | 24+31.85 TO 26+39.73 | 153          | RT.         |
| 4         | 11+72 TO 11+81       | 5            | LT., ALLEY. |
| TOTAL     |                      | 216 SQ. YD.  |             |

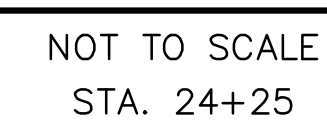
| CURB AND GUTTER       |                |            |                 |                   |
|-----------------------|----------------|------------|-----------------|-------------------|
| SHT. NO.              | STATION        | TYPE.      | LENGTH LIN. FT. | REMARKS           |
| 3                     | 20+25 TO 20+44 | TYPE 1 MOD | 20              | RT.               |
| 3                     | 21+85 TO 23+93 | TYPE 1 MOD | 223             | LT.               |
| 3                     | 21+87 TO 23+82 | TYPE 1 MOD | 395             | LANDSCAPED MEDIAN |
| 3                     | 21+85 TO 23+92 | TYPE 1 MOD | 228             | RT.               |
| 3                     | 24+28 TO 26+46 | TYPE 1 MOD | 243             | RT.               |
| 3                     | 24+38 TO 26+32 | TYPE 1 MOD | 394             | LANDSCAPED MEDIAN |
| 3                     | 24+32 TO 26+31 | TYPE 1 MOD | 202             | LT.               |
| 4                     | 10+34 TO 11+82 | TYPE 1 MOD | 153             | ALLEY LT.         |
| 4                     | 10+34 TO 11+82 | HEADER     | 153             | ALLEY RT.         |
| TOTAL TYPE 1 MODIFIED |                |            | 1858            |                   |
| TOTAL HEADER CURB     |                |            | 153             |                   |



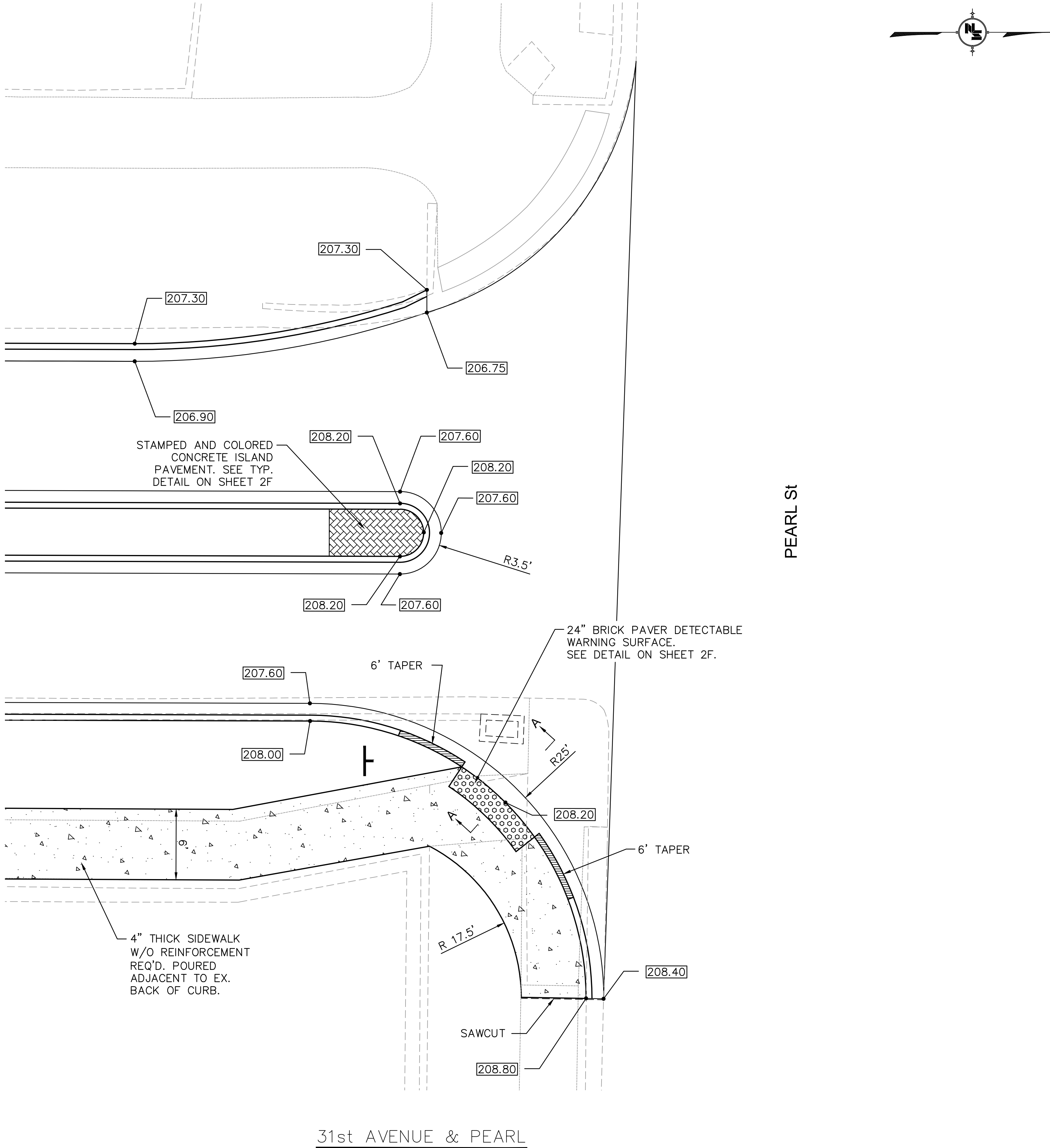


31st AVENUE & ALLEY  
NOT TO SCALE  
STA. 21+75

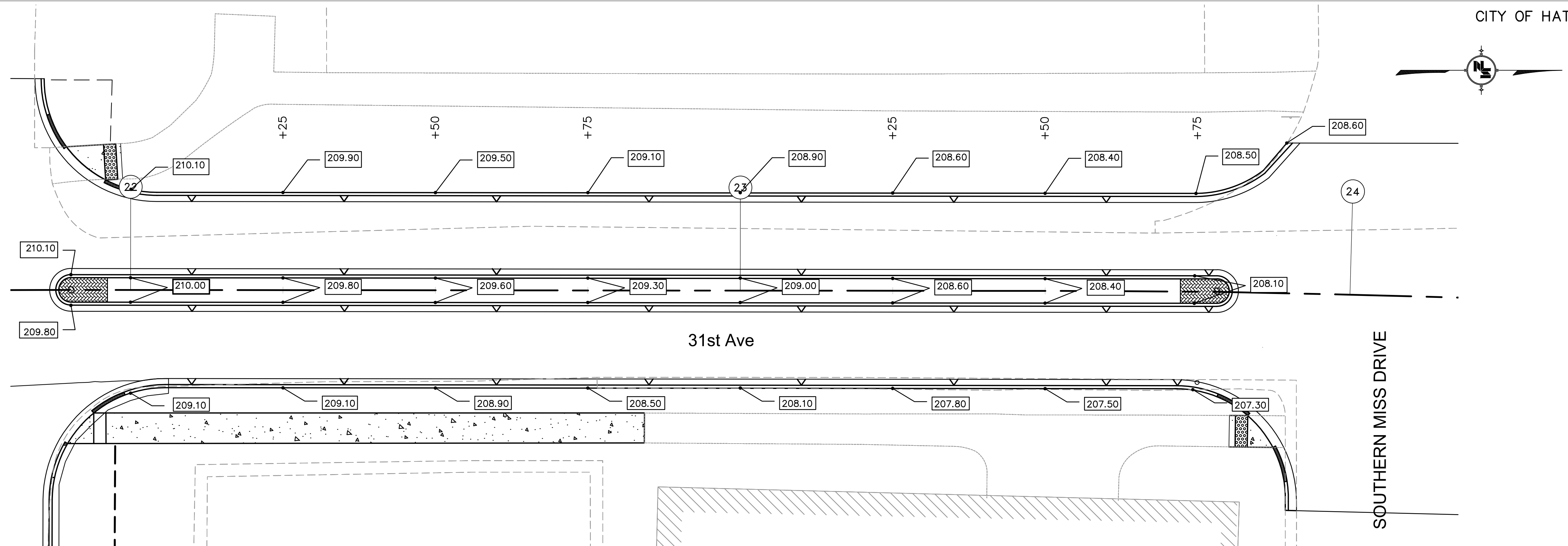




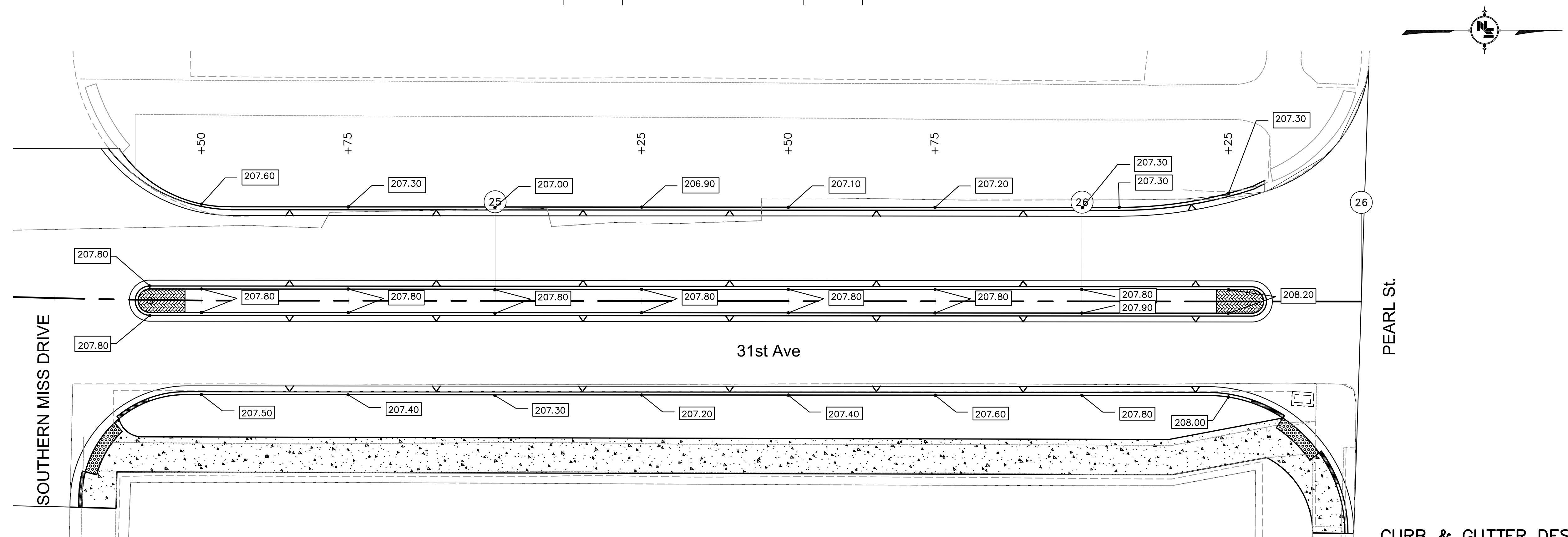






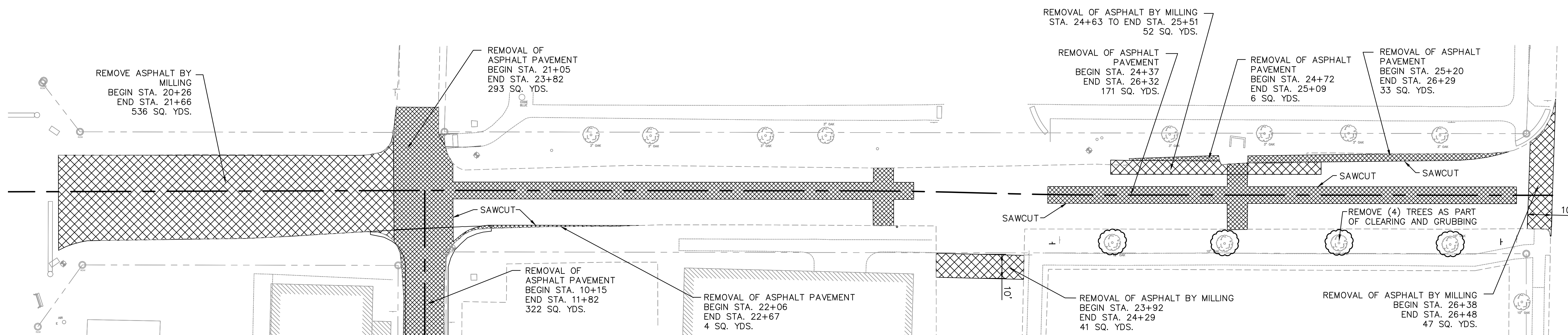


^ : INDICATES DIRECTION OF DRAIN INTO OR OUT OF GUTTER

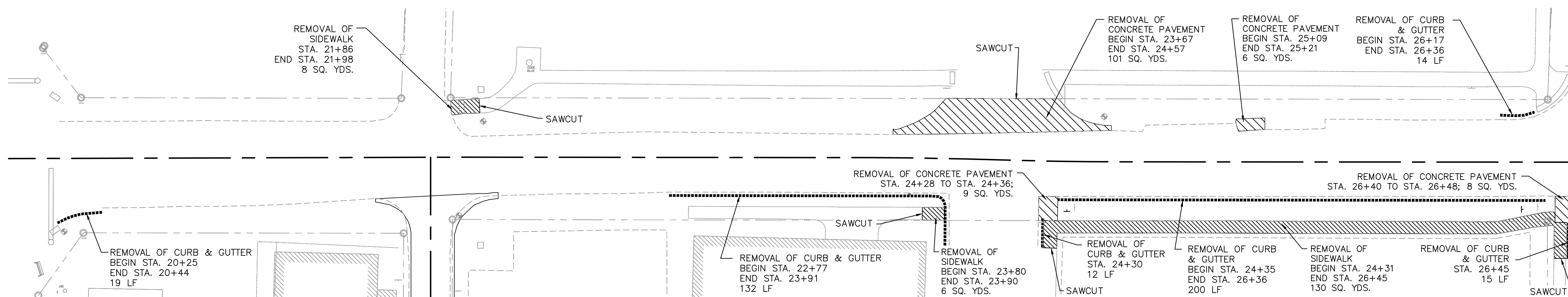


CURB &amp; GUTTER DESIGN ELEVATION





### DEMOLITION-ASPHALT

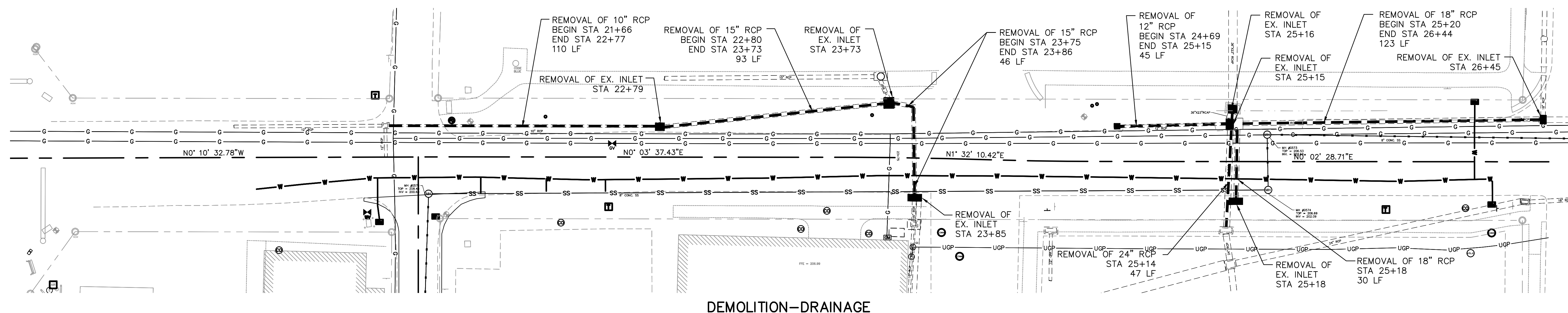


### DEMOLITION-CONCRETE, CURB & GUTTER

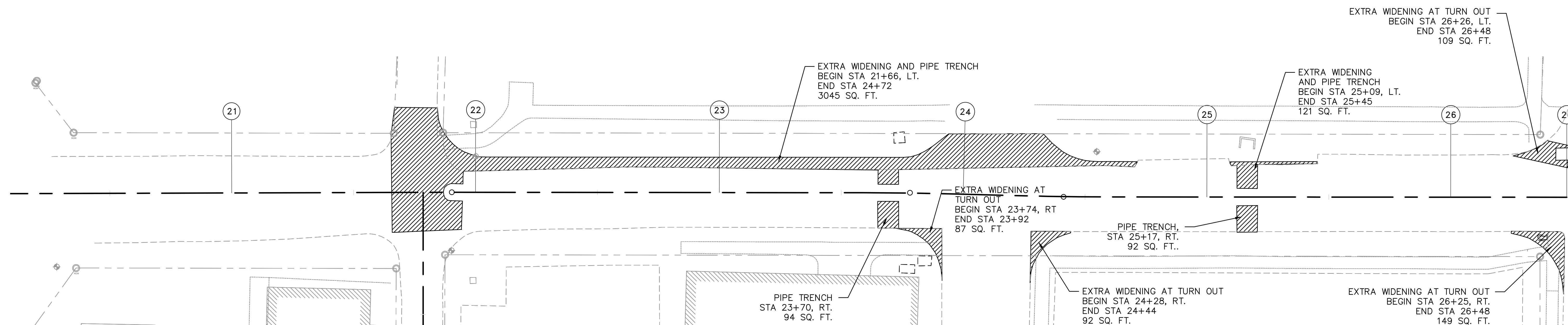
#### LEGEND

|  |                                       |  |                          |
|--|---------------------------------------|--|--------------------------|
|  | COLD MILLING                          |  | REMOVAL OF TREES         |
|  | REMOVAL OF ASPHALT PAVEMENT           |  | REMOVAL OF CURB & GUTTER |
|  | REMOVAL OF CONCRETE PAVEMENT/SIDEWALK |  | GAS                      |
|  | EXTRA WIDENING REQ'D.                 |  | WATER                    |
|  |                                       |  | SEWER                    |





DEMOLITION-DRAINAGE

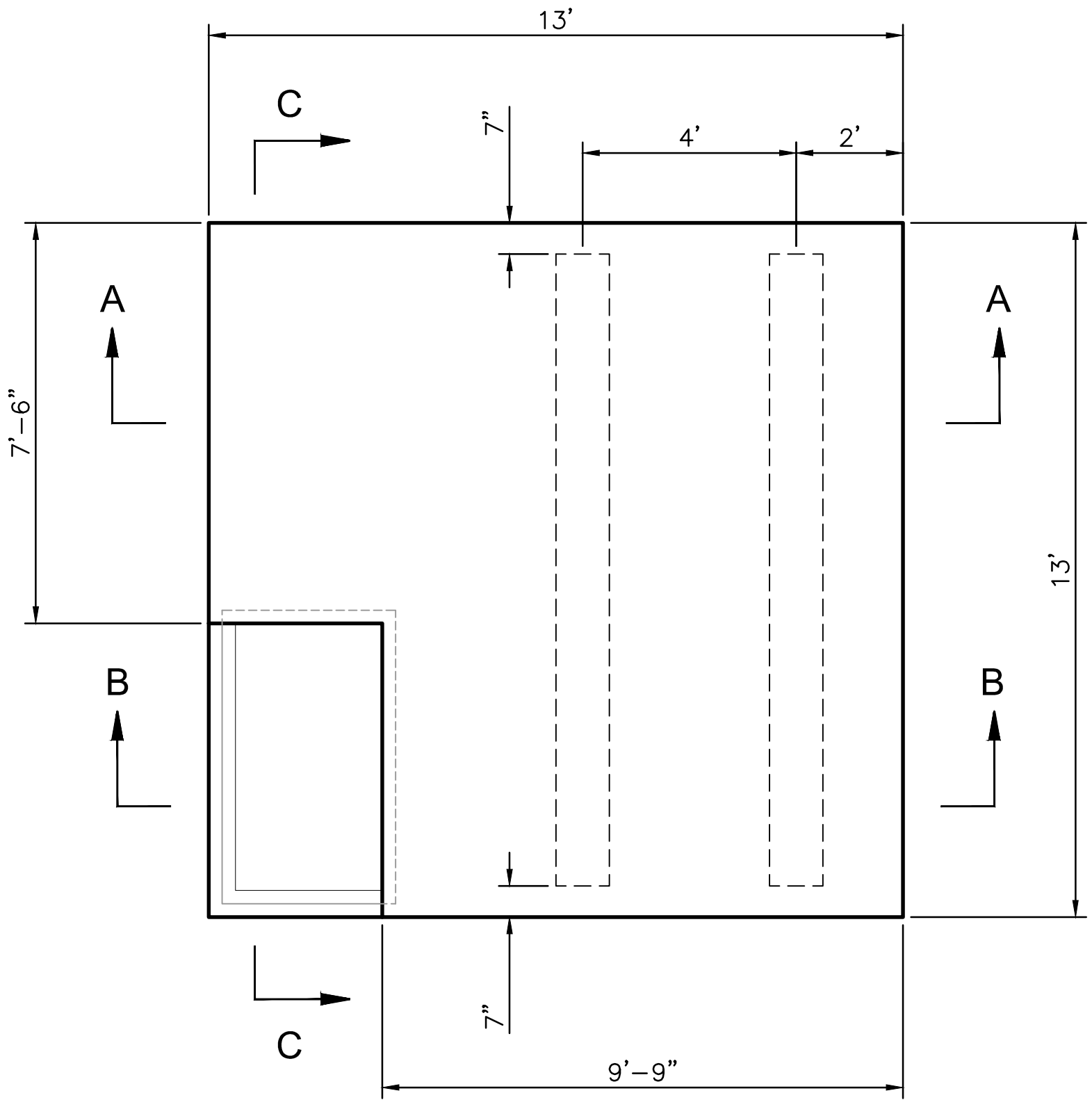


EXTRA WIDENING

LEGEND

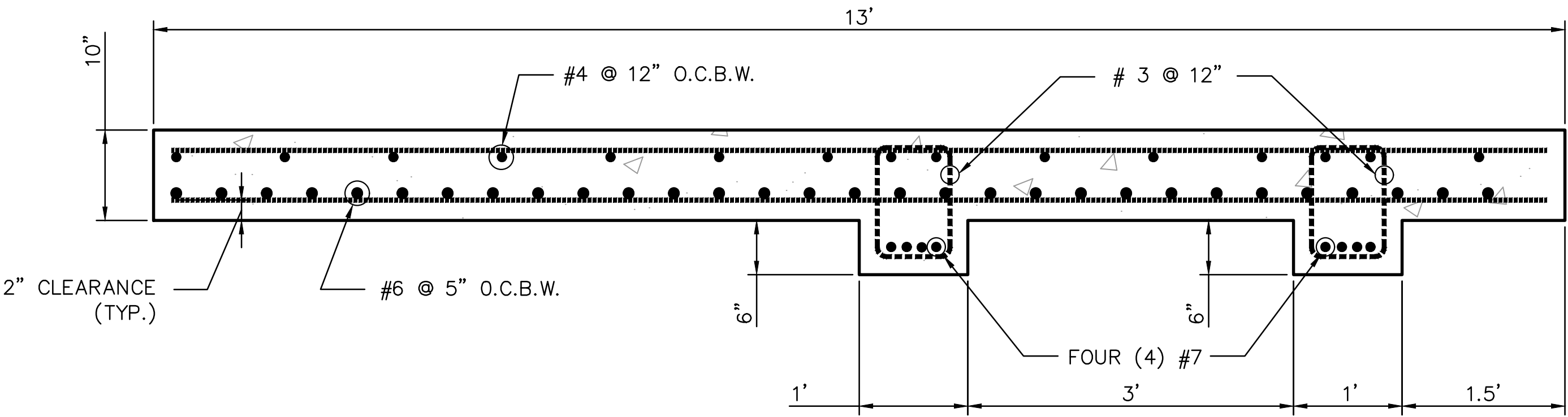
|  |                                       |  |                          |
|--|---------------------------------------|--|--------------------------|
|  | COLD MILLING                          |  | REMOVAL OF TREES         |
|  | REMOVAL OF ASPHALT PAVEMENT           |  | REMOVAL OF CURB & GUTTER |
|  | REMOVAL OF CONCRETE PAVEMENT/SIDEWALK |  | GAS                      |
|  | EXTRA WIDENING REQ'D.                 |  | WATER                    |
|  |                                       |  | SEWER                    |



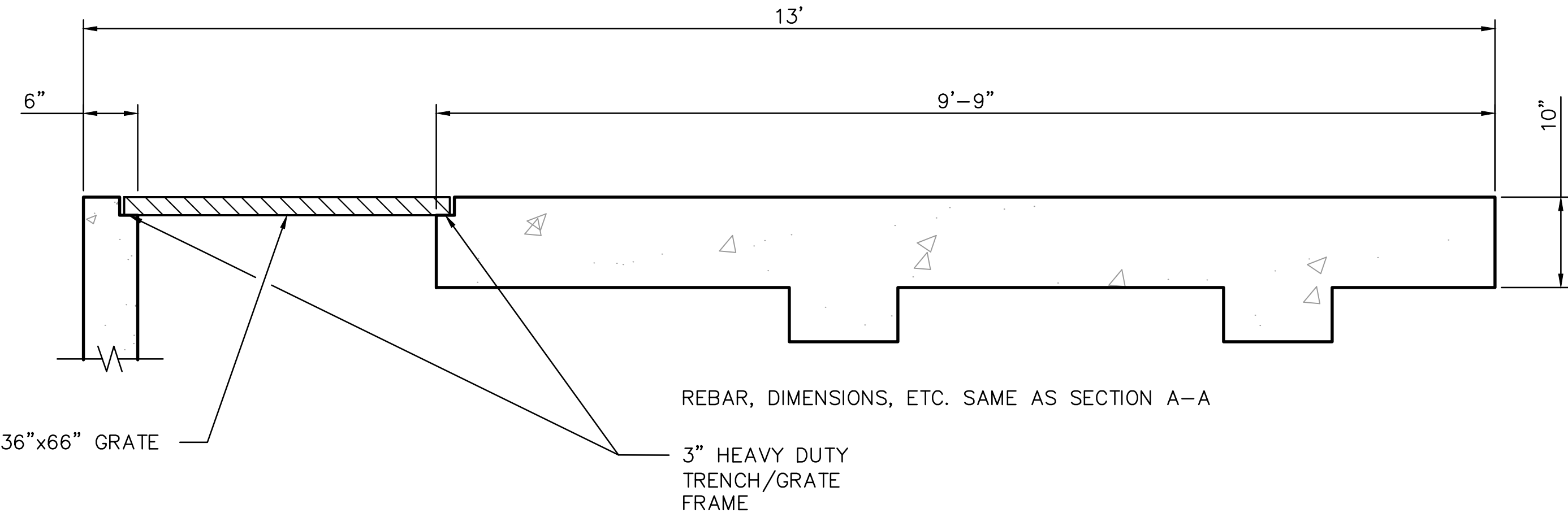


13'x13' JUNCTION BOX - PLAN VIEW  
1" = 2.5'

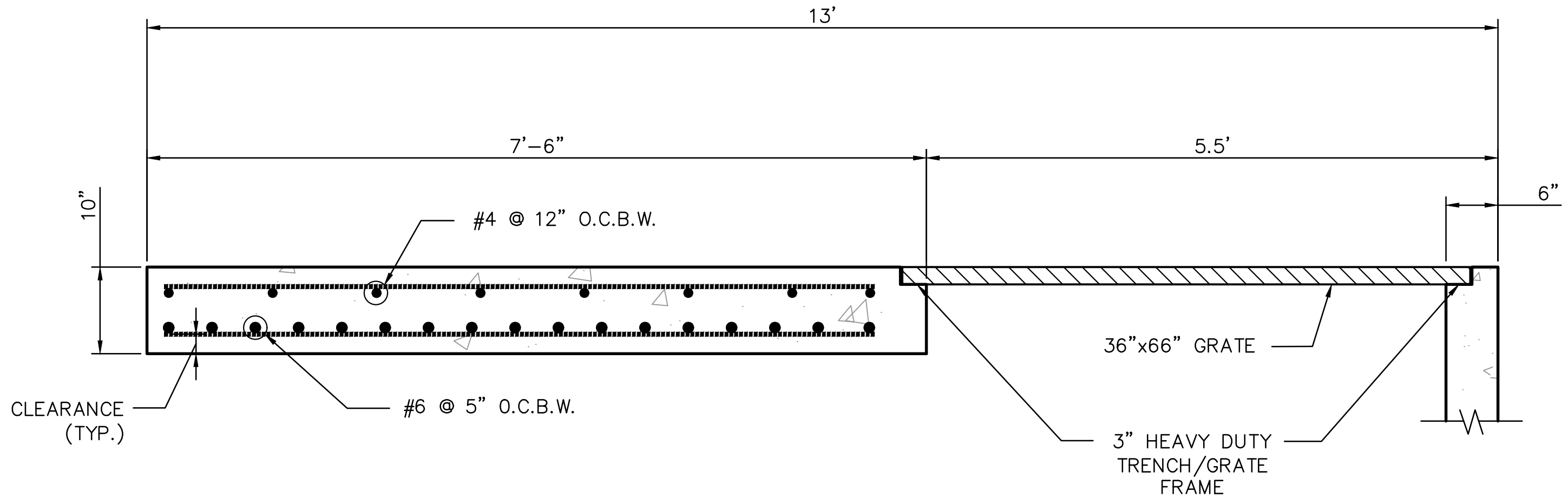
NOTE:  
JUNCTION BOX DESIGNED UNDER  
LRFD CRITERIA USING HL-93  
AND LANE LOADINGS



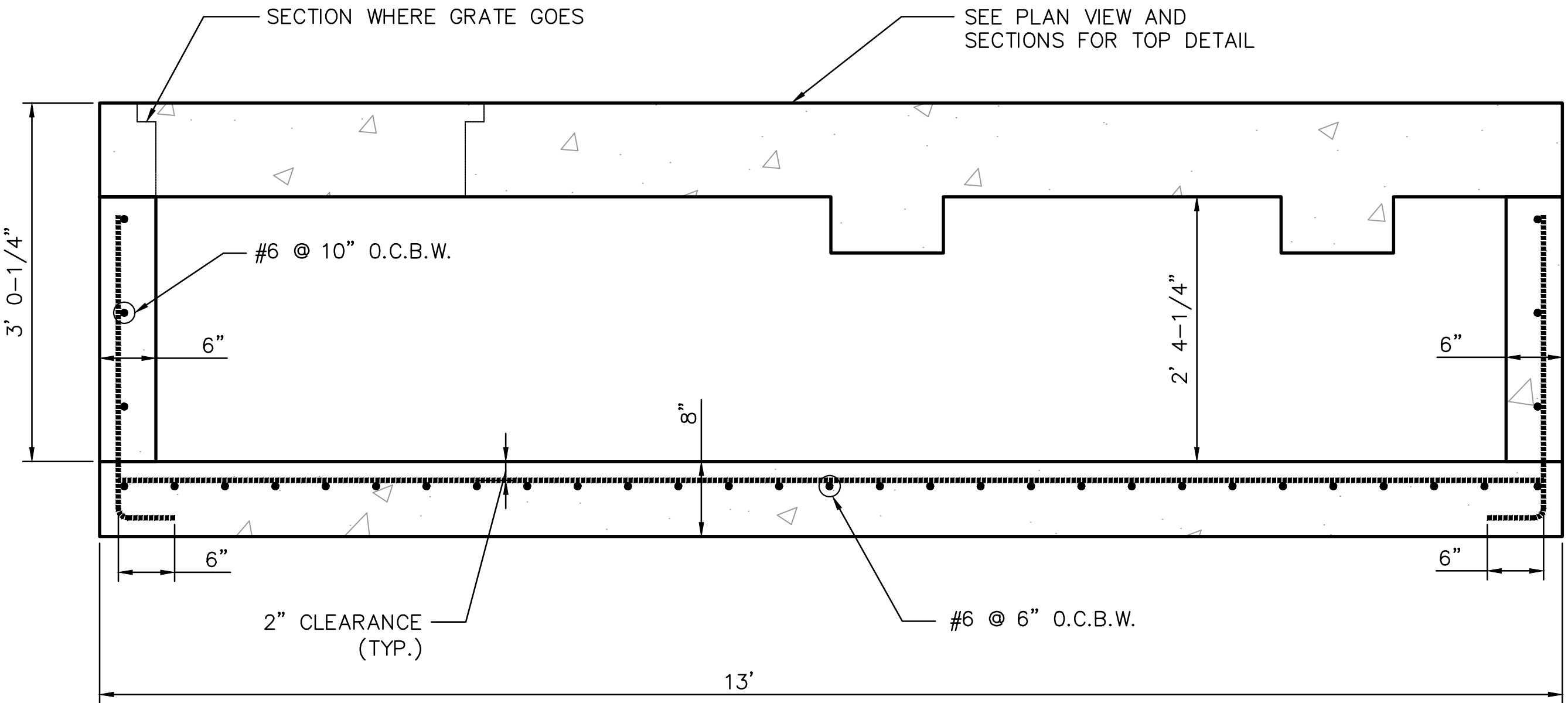
SECTION A-A  
1" = 1.0'



SECTION B-B  
1" = 1.0'

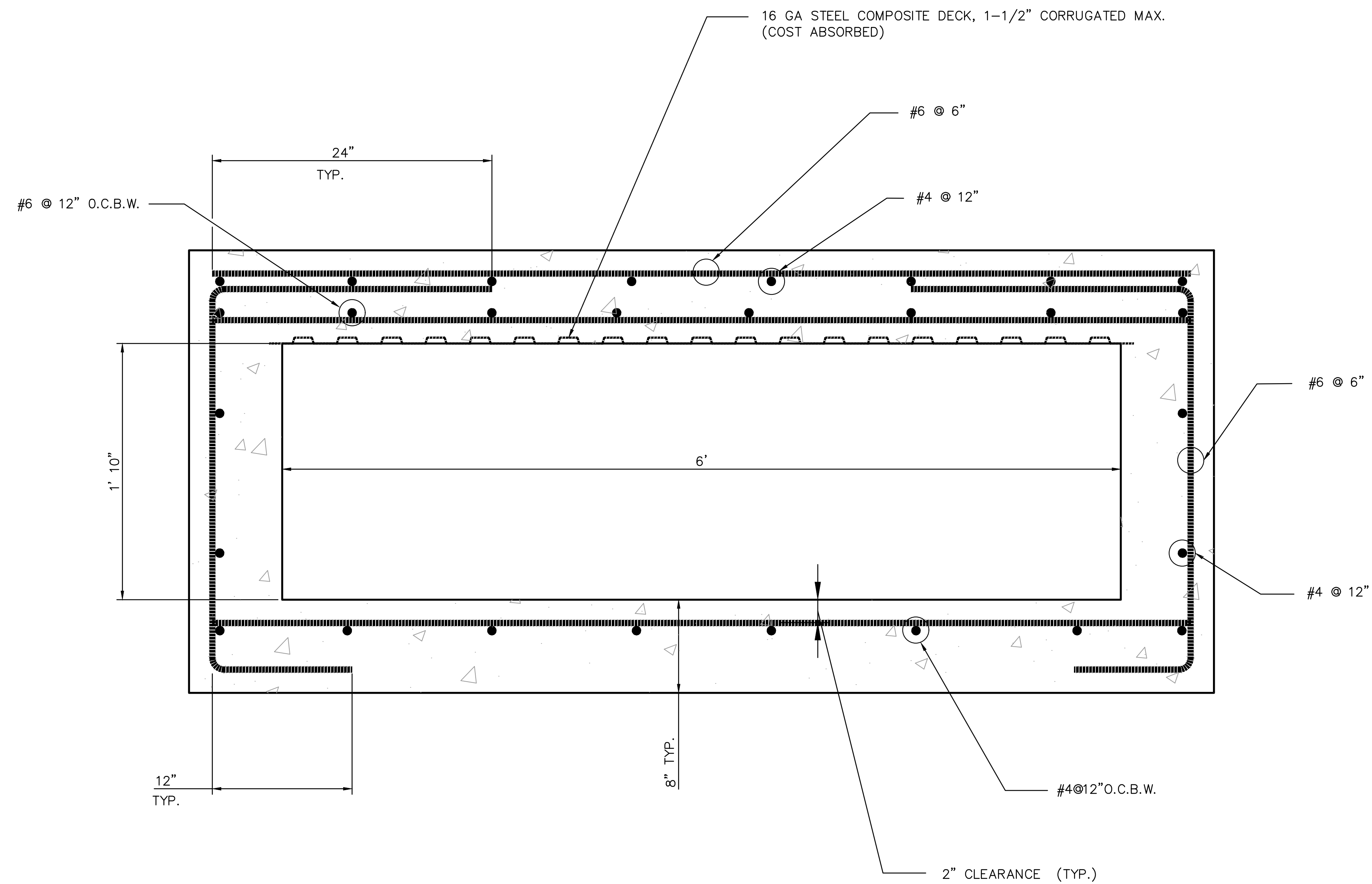


SECTION C-C  
1" = 1.0'

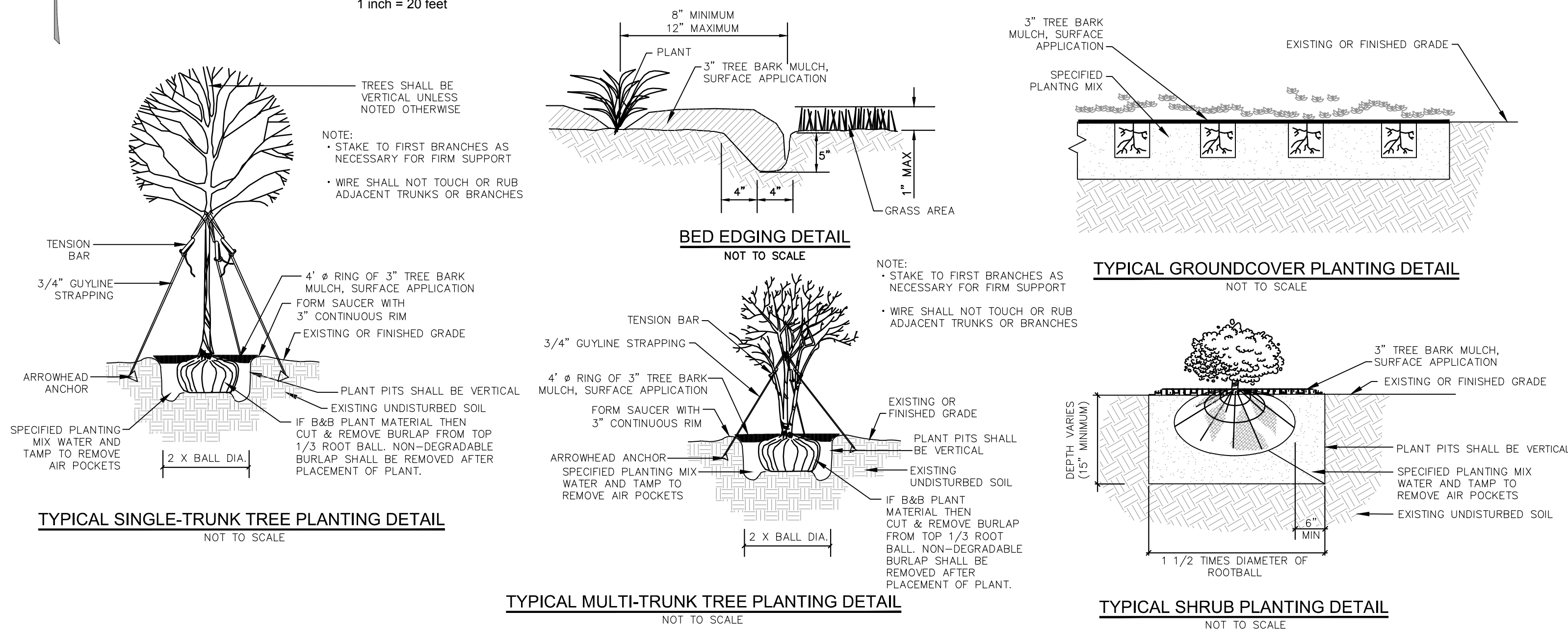
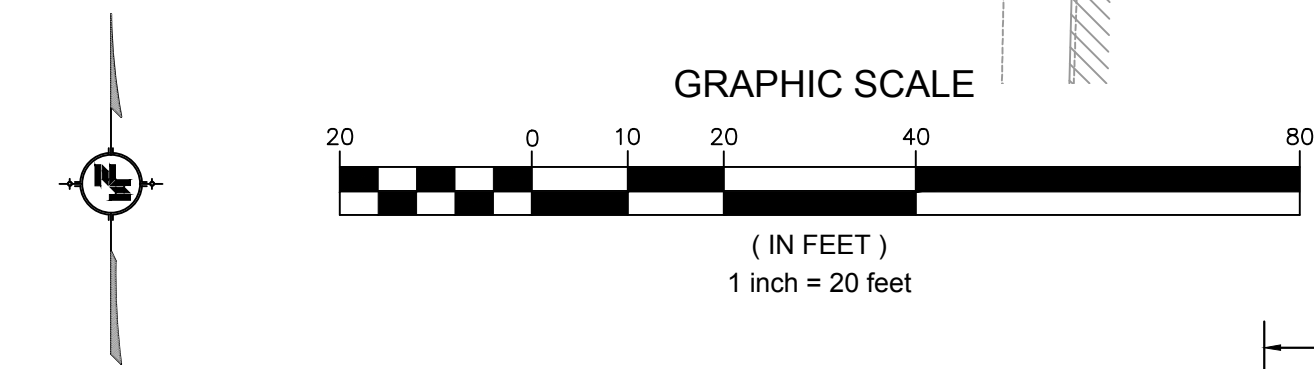
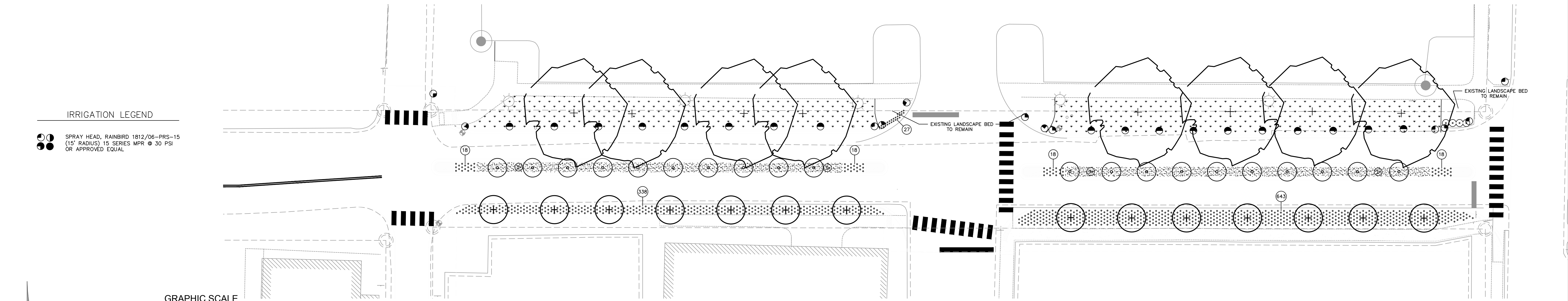
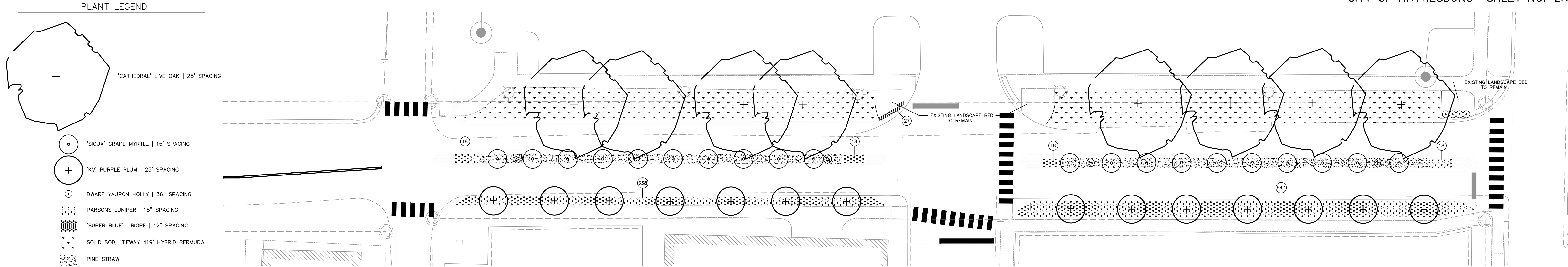


13'x13' JUNCTION BOX - ELEVATION VIEW  
1" = 1.0'







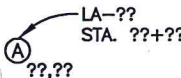


- IRRIGATION GENERAL NOTES
- ALL IRRIGATION COMPONENTS ARE TO SCALE BUT SUBJECT TO FIELD MODIFICATION AS NEEDED. FIELD MODIFICATIONS OR RECOMMENDED CHANGES DUE TO AN IRRIGATION CONTRACTORS PRIOR EXPERIENCE WILL NOT RESULT IN ADDITIONAL PAYMENT.
  - ALL SPRINKLERS TO BE INSTALLED ON 1" SCH 80 SWING JOINTS RECOMMENDATIONS.
  - MAINLINE DEPTH TO BE NO LESS THAN 18"
  - LATERAL DEPTH TO BE NO LESS THAN 16"
  - LOCATE VALVES OUT OF HIGH TRAFFIC AREAS
  - WIRE SPLICE CONNECTIONS TO BE WATERPROOF
  - WHERE IRRIGATION MAIN AND LATERAL LINES ARE UNDER SIDEWALKS OR PAVEMENT, RUNS SHALL BE INSTALLED IN PRESET SLEEVES.
  - INSTALL ALL COMPONENTS AS PER LOCAL, STATE AND FEDERAL CODES
  - REFER TO MANUFACTURER'S CATALOG FOR PERFORMANCE SPECIFICATIONS
  - COORDINATE ALL IRRIGATION INSTALLATION WITH OTHER RELATED ITEMS OF WORK.
  - ALL IRRIGATION PIPING SHALL BE PVC SCH 40 (MIN).
  - ALL IRRIGATION LINES SHALL BE FLUSHED PRIOR TO IRRIGATION HEAD INSTALLATION.
  - NO ROCKS OR OTHER EXTRANEOUS MATERIAL SHALL BE USED IN BACKFILL OPERATIONS.
  - ALL NEW IRRIGATION SHALL COORDINATE WITH THE UNIVERSITY'S CENTRAL CONTROL SYSTEM AND HAVE PROPER SYNCHRONIZATION TO MONITOR SYSTEM EFFICIENCY AND AUTOMATION
  - HEAD ADJUSTMENTS OR CHANGES IN NOZZLES AREA AN ABSORBED COST
  - THE FOLLOWING ITEMS ARE ALSO REQUIRED:
    - A. MASTER VALVE (2" RAINBIRD 200-PGA OR APPROVED EQUAL)
    - B. 2" BACKFLOW PREVENTER IN DARK GREEN FIBERGLASS ENCLOSURE
    - C. FLOW SENSOR (WEATHERMATIC SLFJ-1220 OR APPROVED EQUAL)
  - REMOVE/SALVAGE EXISTING IRRIGATION HEADS PRIOR TO EXCAVATION/GRADING. ADJUST PIPING AND REINSTALL SALVAGED IRRIGATION HEADS WITH NEW FITTINGS AND SWING/FLEX PIPE. COST TO REPLACE IRRIGATION HEADS DAMAGED DURING CONSTRUCTION COVERED BY CONTRACTOR.

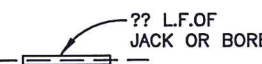
| LANDSCAPE QUANTITIES                                 |      |           |                                     |                 |                  |                      |                                                                                                                                                                                                                                                |  |  |
|------------------------------------------------------|------|-----------|-------------------------------------|-----------------|------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| LANDSCAPE ITEMS                                      | QTY  | SIZE/UNIT | SEASONAL APPLICATIONS-DATES & RATES |                 |                  |                      | REQUIREMENTS                                                                                                                                                                                                                                   |  |  |
|                                                      |      |           | SPRING & SUMMER                     |                 | FALL & WINTER    |                      |                                                                                                                                                                                                                                                |  |  |
|                                                      |      |           | RATES                               | DATES           | RATES            | DATES                |                                                                                                                                                                                                                                                |  |  |
| STANDARD GROUND PREPARATION                          | 725  | SQ. YD.   | PER SQ. YD.                         | BY REQUEST ONLY | SQ. YD.          | PER SQ. YD.          | APPLIED TO AREAS SHOWN IN PLANS TO RECEIVE SOD; INCLUDES DEBRIS REMOVAL AND FINISHED GRADING (COST ABSORBED IN SOD)                                                                                                                            |  |  |
| SOLID SOD, 'TIFWAY 419' HYBRID BERMUDA               | 725  | SQ. YD.   | PER SQ. YD.                         | BY REQUEST ONLY | SQ. YD.          | PER SQ. YD.          | CERTIFICATE REQUIRED                                                                                                                                                                                                                           |  |  |
| SOIL TEST                                            | 1    |           | PER CU. YD.                         | NOT APPLICABLE  | PER CU. YD.      | NOT APPLICABLE       | REQUIRED TO BE SUBMITTED IN ADVANCE OF ALL LANDSCAPE CONSTRUCTION ITEMS; COST ABSORBED IN BED PREP PAY ITEM                                                                                                                                    |  |  |
| TOPSOIL, CONTRACTOR FURNISHED                        | 190  | CU. YD.   | PER CU. YD.                         | NOT APPLICABLE  | PER CU. YD.      | NOT APPLICABLE       | 36" DEPTH IN MEDIUM (187 CY); 3" DEPTH IN LANDSCAPE BEDS ON EAST SIDE OF 31ST AVENUE (30 CY)                                                                                                                                                   |  |  |
| BED PREPARATION                                      | 2400 | SQ. FT.   | PER SQ. FT.                         | NOT APPLICABLE  | PER SQ. FT.      | NOT APPLICABLE       | APPLIED TO AREAS SHOWN IN PLANS TO RECEIVE SHRUB, GROUNDCOVER AND TREE PLANTING; REMOVE EXISTING GRASS AND POOR MATERIAL; ADD TREE BARK MULCH TYPE 3 AND ROTO-TILL INTO EXISTING SOIL TO A MINIMUM DEPTH OF 2"; MEDIAN STRAW AREA NOT INCLUDED |  |  |
| PINE STRAW MULCH, BALE                               | 75   | BALE      | PER BALE                            | NOT APPLICABLE  | PER BALE         | NOT APPLICABLE       | 1 BALE PER 50 SF OF BED PREP AREA (50) & MEDIAN STRAW AREA (25); COST ABSORBED IN BED PREP PAY ITEM                                                                                                                                            |  |  |
| TREE BARK MULCH, TYPE III                            | 18   | CU. YD.   | PER CU. YD.                         | NOT APPLICABLE  | PER CU. YD.      | NOT APPLICABLE       | 2" DEPTH PLACED AND ROTO-TILLED INTO BED PREP AREAS TO A DEPTH OF 2" (15 CY); 0.1 CY INCORPORATED INTO BACKFILL OF TREES PLANTED IN MEDIAN STRAW AREA OR SOD AREA (3 CY); COST ABSORBED IN BED PREP PAY ITEM OR TREE PLANTING PAY ITEMS        |  |  |
| TREE PLANTING, 'SIOUX' CRAPE MYRTLE                  | 20   | 30 GALLON | EACH                                | BY REQUEST ONLY | EACH             | OCTOBER 1 - APRIL 30 | FULL & HEALTHY PLANT; MULTI-TRUNK / TREE FORM; 8" H / 4" S / 4" CT                                                                                                                                                                             |  |  |
| TREE PLANTING, 'KV' PURPLE PLUM                      | 14   | 30 GALLON | EACH                                | BY REQUEST ONLY | EACH             | OCTOBER 1 - APRIL 30 | FULL & HEALTHY PLANT; 10" H / 4" S / 2" CAL                                                                                                                                                                                                    |  |  |
| TREE PLANTING, 'CATHEDRAL' LIVE OAK                  | 8    | 30 GALLON | EACH                                | BY REQUEST ONLY | EACH             | OCTOBER 1 - APRIL 30 | FULL & HEALTHY PLANT; 10" H / 4" S / 2" CAL                                                                                                                                                                                                    |  |  |
| SHRUB PLANTING, DWARF YAUPOH HOLLY                   | 4    | 3 GALLON  | EACH                                | BY REQUEST ONLY | EACH             | OCTOBER 1 - APRIL 30 | FULL & HEALTHY PLANT; 3" SPACING                                                                                                                                                                                                               |  |  |
| GROUNDCOVER PLANTING, 'SUPER BLUE' LIRIOPE           | 27   | 4" CONT   | EACH                                | BY REQUEST ONLY | EACH             | OCTOBER 1 - APRIL 30 | FULL & HEALTHY PLANT; 12" SPACING                                                                                                                                                                                                              |  |  |
| GROUNDCOVER PLANTING, 'PARSONS' JUNIPER              | 1053 | 1 GALLON  | EACH                                | BY REQUEST ONLY | EACH             | OCTOBER 1 - APRIL 30 | FULL & HEALTHY PLANT; 18" SPACING                                                                                                                                                                                                              |  |  |
| FERTILIZER FOR WOODY PLANT MATERIAL, TABLET, 21 GRAM | 1277 | EACH      | SEE REQUIREMENTS                    | BY REQUEST ONLY | SEE REQUIREMENTS | OCTOBER 1 - APRIL 30 | 5 PER 30 GALLON (220); 1 PER 3/1 GALLON (1057)                                                                                                                                                                                                 |  |  |
| FERTILIZER FOR WOODY PLANT MATERIAL, TABLET, 10 GRAM | 27   | EACH      | SEE REQUIREMENTS                    | BY REQUEST ONLY | SEE REQUIREMENTS | OCTOBER 1 - APRIL 30 | 1 PER 4" CONT                                                                                                                                                                                                                                  |  |  |
| MOISTURE ABSORBANT CRYSTALS                          | 750  | OUNCES    | SEE REQUIREMENTS                    | BY REQUEST ONLY | SEE REQUIREMENTS | OCTOBER 1 - APRIL 30 | FOR TREE, SHRUB & GROUNDCOVER PLANTING IN NON-IRRIGATED AREAS; 6 OZ PER 30 GAL (216); 0.5 OZ PER 1 GAL (527); COST ABSORBED IN INDIVIDUAL TREE AND SHRUB PAY ITEMS                                                                             |  |  |
| SELECTIVE, PRE-EMERGENCE HERBICIDE                   | 18   | LB        | SEE REQUIREMENTS                    | BY REQUEST ONLY | SEE REQUIREMENTS | OCTOBER 1 - APRIL 30 | 2 GRAM PER SQUARE FEET OF BED PREPARATION AREA & MEDIAN STRAW AREA; COST ABSORBED IN BED PREP PAY ITEM                                                                                                                                         |  |  |
| WATERING                                             | 70   | LB        | SEE REQUIREMENTS                    | BY REQUEST ONLY | SEE REQUIREMENTS | OCTOBER 1 - APRIL 30 | TREE BAGS (20) AND GROUNDCOVER AREA (50) (1" EQUIV FOR UP TO 36 WEEKS)                                                                                                                                                                         |  |  |
| SLOW RELEASE WATERING BAGS                           | 34   | 15 GAL    | SEE REQUIREMENTS                    | BY REQUEST ONLY | SEE REQUIREMENTS | OCTOBER 1 - APRIL 30 | REQUIRED FOR ALL TREES IN UN-IRRIGATED AREAS; FILL BI-WEEKLY DURING ESTABLISHMENT PERIOD OF GROWING SEASON                                                                                                                                     |  |  |



LEGEND

- 

LOW MAST LIGHTING ASSEMBLY, DESIGNATION AND CIRCUIT NUMBER  
22FT. POLE, 2 - 250 WATT METAL HALIDE LUMINAIRES,  
TYPE V DISTRIBUTION (TYPE 22-6-2-250)
- 

UNDERGROUND SECONDARY BRANCH CIRCUIT
- 

JACK OR BORE
- 

EXISTING SECONDARY POWER CONTROLLER
- 

EXISTING PAD MOUNTED TRANSFORMER
- 

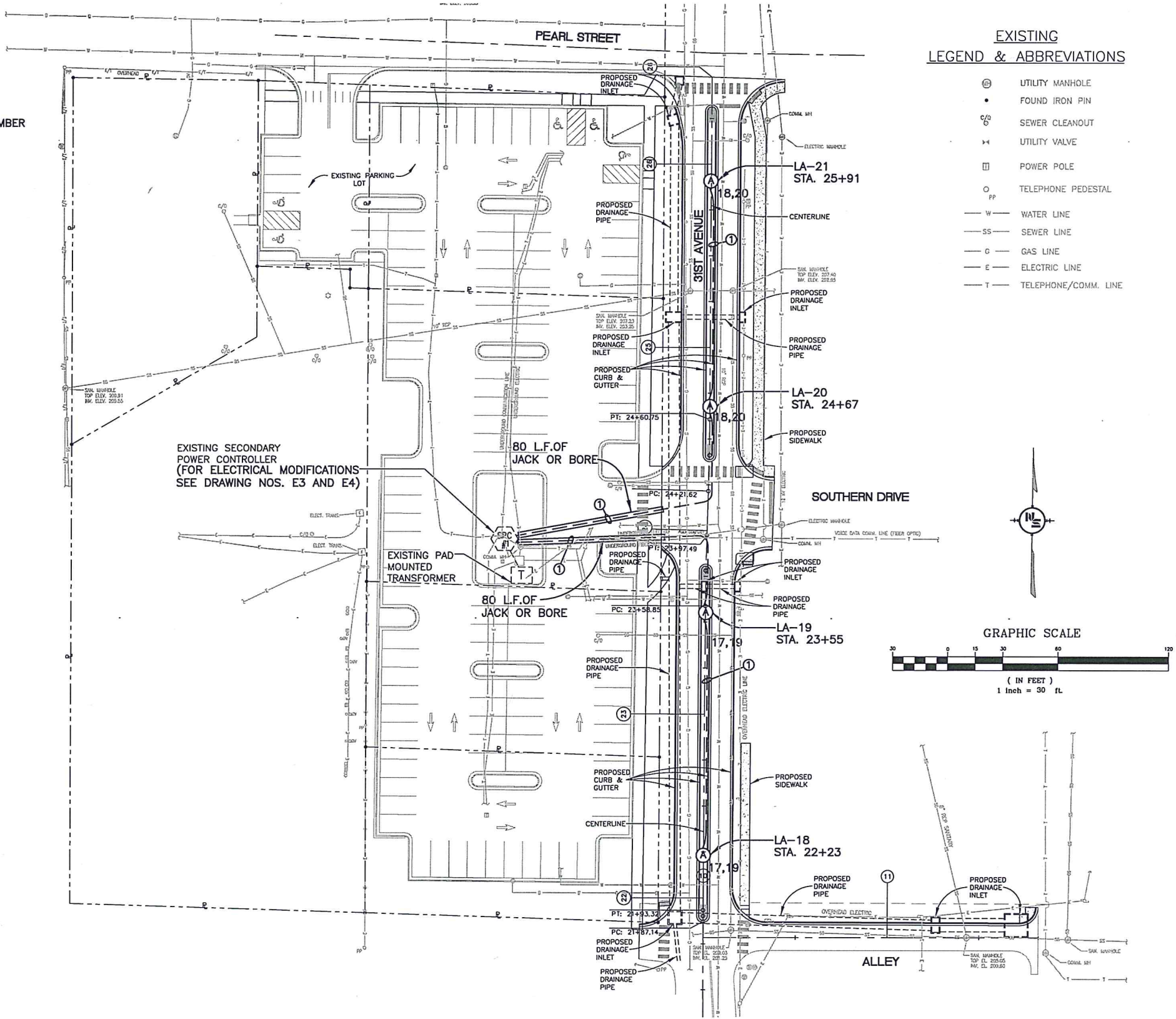
STATION NUMBER AND CENTERLINE

NOTE:  
CONTRACTOR SHALL COORDINATE  
WITH UNIVERSITY FOR CONNECTION  
TO EXISTING SECONDARY POWER  
CONTROLLER

| FEEDER SCHEDULE |                      |
|-----------------|----------------------|
| ①               | 1" C W/2#10,1#10 GRD |

| NO.   | STATION | OFFSET | REMARKS          |
|-------|---------|--------|------------------|
| LA-18 | 22+23   | 0 FT.  | 31ST AVENUE C.L. |
| LA-19 | 23+55   | 0 FT.  | 31ST AVENUE C.L. |
| LA-20 | 24+67   | 0 FT.  | 31ST AVENUE C.L. |
| LA-21 | 25+91   | 0 FT.  | 31ST AVENUE C.L. |

NOTE:  
THE LOCATION OF EXISTING UNDERGROUND  
UTILITIES ARE SHOWN IN AN APPROXIMATE  
MANNER ONLY. THE CONTRACTOR SHALL  
DETERMINE ALL EXISTING UTILITIES BEFORE  
COMMENCING WORK.

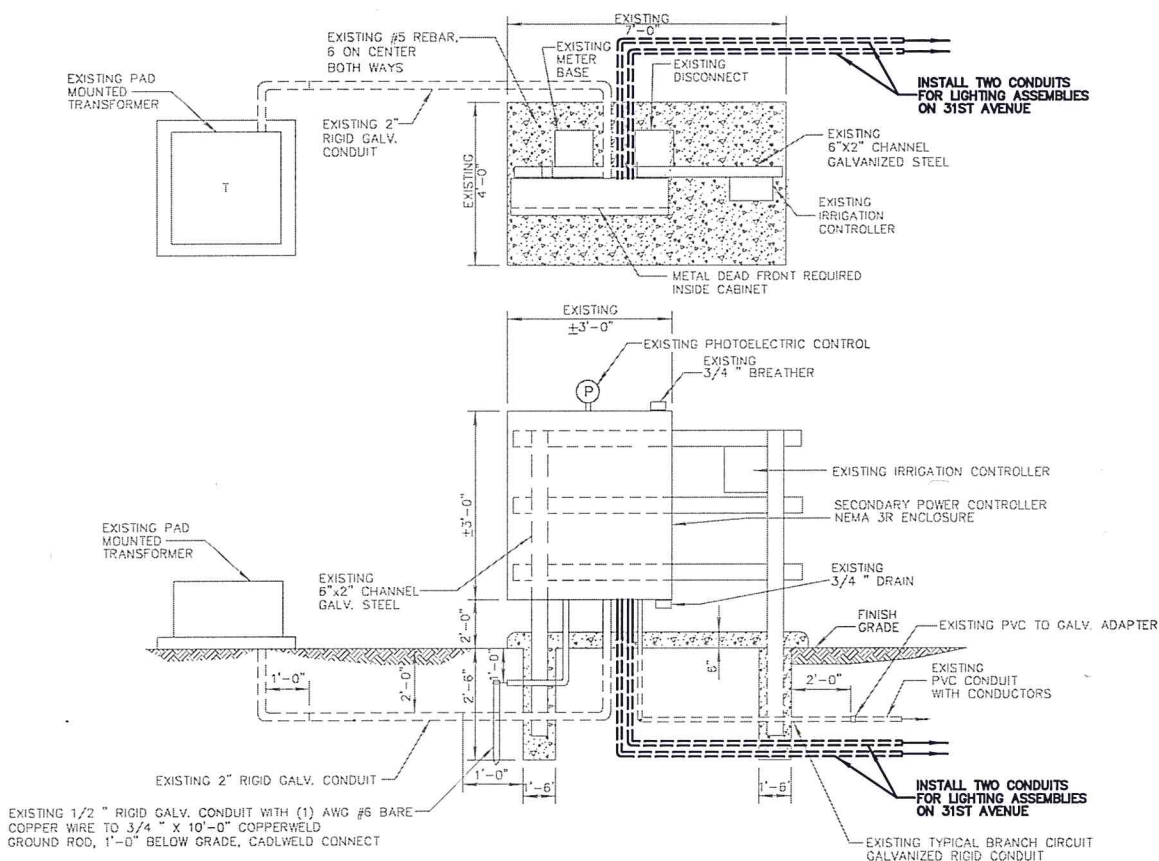


EXISTING  
LEGEND & ABBREVIATIONS

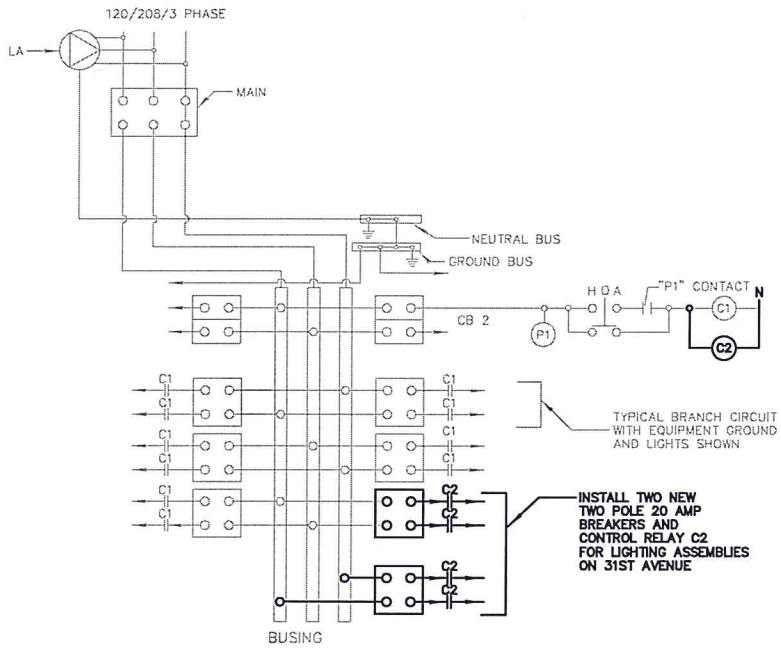
- UTILITY MANHOLE
- FOUND IRON PIN
- SEWER CLEANOUT
- UTILITY VALVE
- POWER POLE
- TELEPHONE PEDESTAL
- WATER LINE
- SEWER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE/COMM. LINE







EXISTING SECONDARY POWER CONTROLLER MODIFICATIONS DETAIL  
N.T.S.

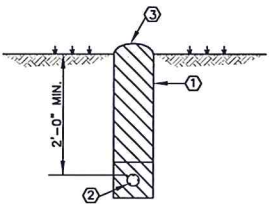


EXISTING SCHEMATIC OF LIGHTING CONTROLLER MODIFICATIONS DETAIL  
N.T.S.

MAIN CIRCUIT BREAKER, REFER TO SECONDARY POWER CONTROLLER SCHEDULE FOR AMPERE RATING, 600V, 2 POLE  
H.O.A. - HAND-OFF-AUTO, SELECTOR SWITCH  
C1 - CONTACTOR  
CB - BRANCH CIRCUIT BREAKER (NO. AS REQ'D ON SCHEDULE)  
LA - LIGHTNING ARRESTER  
DR - DUPLEX RECEPTACLE  
P1 - PHOTOELECTRIC CONTROL

NOTE

ALL COMPONENTS LOCATED INSIDE NEMA 3R EXCEPT THOSE NOTED WITH (\*)  
LABEL BREAKERS AS TO CIRCUIT NUMBER  
USE PHENOLIC ENGRAVED LABELS



CABLE TRENCHING DETAIL  
N.T.S.

- ① FRIABLE MATERIAL AS APPROVED BY THE ENGINEER COMPACTED 6" LIFTS.
- ② TYPE THWN CABLE IN PVC CONDUIT.
- ③ FILL EXCESS 3" ABOVE GRADE FOR SETTLING OR AS DIRECTED BY ENGINEER.

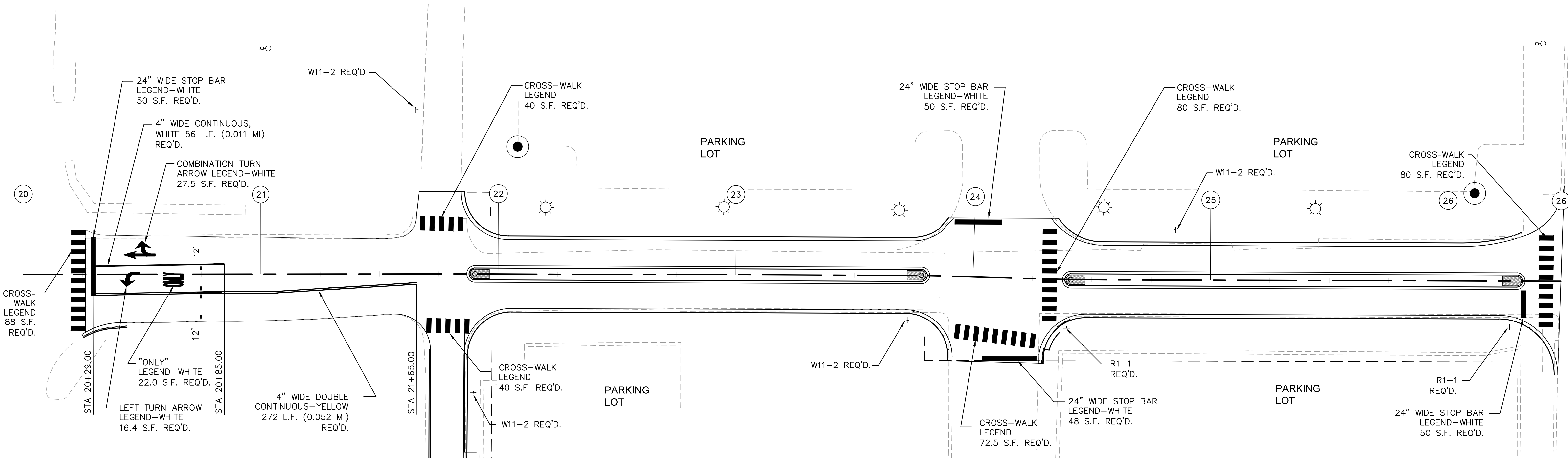
| EXISTING SPC PANEL SCHEDULE                     |              |                 |                              |             |               |      |                                                                                                                                                      |             |                        |                 |              |                   |
|-------------------------------------------------|--------------|-----------------|------------------------------|-------------|---------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------|-----------------|--------------|-------------------|
| CIRCUIT<br>NUMBER                               | WIRE<br>SIZE | BREAKER<br>SIZE | DESCRIPTION<br>OF LOAD       | LOAD<br>KVA | KVA PER PHASE |      |                                                                                                                                                      | LOAD<br>KVA | DESCRIPTION<br>OF LOAD | BREAKER<br>SIZE | WIRE<br>SIZE | CIRCUIT<br>NUMBER |
|                                                 |              |                 |                              |             | A             | B    | C                                                                                                                                                    |             |                        |                 |              |                   |
| 1                                               | #12          | 20A/1P          | IRRIGATION CONTROLLER        | 0.50        | 1.00          |      |                                                                                                                                                      | 0.50        | LIGHTING CONTROLLER    | 20A/1P          | #12          | 2                 |
| 3                                               | #10          | 20A/1P          | EMERGENCY SPEAKER PHONE      | 1.00        |               | 1.24 |                                                                                                                                                      | 0.24        | LA-2,LA-3,LA-6,LA-9    | 20A/2P          | #10          | 4                 |
| 5                                               | #10          | 20A/2P          | LA-1,LA-4,LA-7               | 0.18        |               |      | 0.42                                                                                                                                                 | 0.24        |                        | -               | #10          | 6                 |
| 7                                               | #10          | -               |                              | 0.18        | 0.36          |      |                                                                                                                                                      | 0.18        | LA-10,LA-15,LA-16      | 20A/2P          | #10          | 8                 |
| 9                                               | #10          | 20A/2P          | LA-5,LA-8                    | 0.63        |               | 0.81 |                                                                                                                                                      | 0.18        |                        | -               | #10          | 10                |
| 11                                              | #10          | -               |                              | 0.63        |               |      | 1.26                                                                                                                                                 | 0.63        | LA-11,LA-13            | 20A/2P          | #10          | 12                |
| 13                                              | #10          | 20A/2P          | LA-12,LA-14,LA-17            | 0.18        | 0.81          |      |                                                                                                                                                      | 0.63        |                        | -               | #10          | 14                |
| 15                                              | #10          | -               |                              | 0.18        |               | 0.36 |                                                                                                                                                      | 0.18        | RECEPTACLE             | 20A/1P          | #12          | 16                |
| * 17                                            | #10          | 20A/2P          | LA-18,LA-19                  | 0.63        |               |      | 1.26                                                                                                                                                 | 0.63        | LA-20,LA-21            | 20A/2P          | #10          | 18                |
| * 19                                            | #10          | -               |                              | 0.63        | 1.26          |      |                                                                                                                                                      | 0.63        |                        | -               | #10          | 20                |
| 21                                              |              |                 |                              |             |               |      |                                                                                                                                                      |             |                        |                 |              | 22                |
| 23                                              |              |                 |                              |             |               |      |                                                                                                                                                      |             |                        |                 |              | 24                |
| 25                                              |              |                 |                              |             |               |      |                                                                                                                                                      |             |                        |                 |              | 26                |
| 27                                              |              |                 |                              |             |               |      |                                                                                                                                                      |             |                        |                 |              | 28                |
| 29                                              |              |                 |                              |             |               |      |                                                                                                                                                      |             |                        |                 |              | 30                |
| EXISTING POWER PANEL<br>LOCATED IN EXISTING SPC |              |                 | TOTAL<br>KVA                 | 3.43        | 2.41          | 2.94 | SERVICE CHARACTERISTICS:<br>120/208V - 3 PHASE - 4 WIRE - 60 Hz.<br>100 AMP. MAIN BREAKER WITH 100 AMP. BUS<br>PROVIDE GROUND BUS<br>NEMA 3R CABINET |             |                        |                 |              |                   |
|                                                 |              |                 | GRAND CONNECTED<br>TOTAL KVA | 8.78        |               |      |                                                                                                                                                      |             |                        |                 |              |                   |

\* MODIFICATION OF EXISTING SPC PANEL

NOTE: MODIFICATION OF EXISTING SPC PANEL  
IS AN ABSORBED COST.

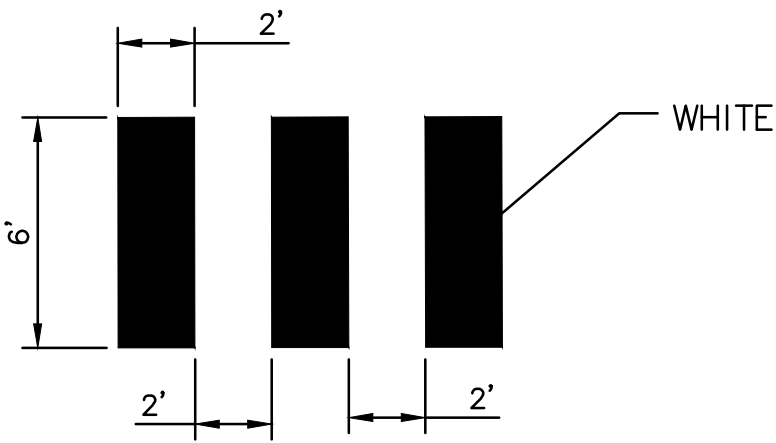
### ESTIMATED QUANTITIES - LIGHTING





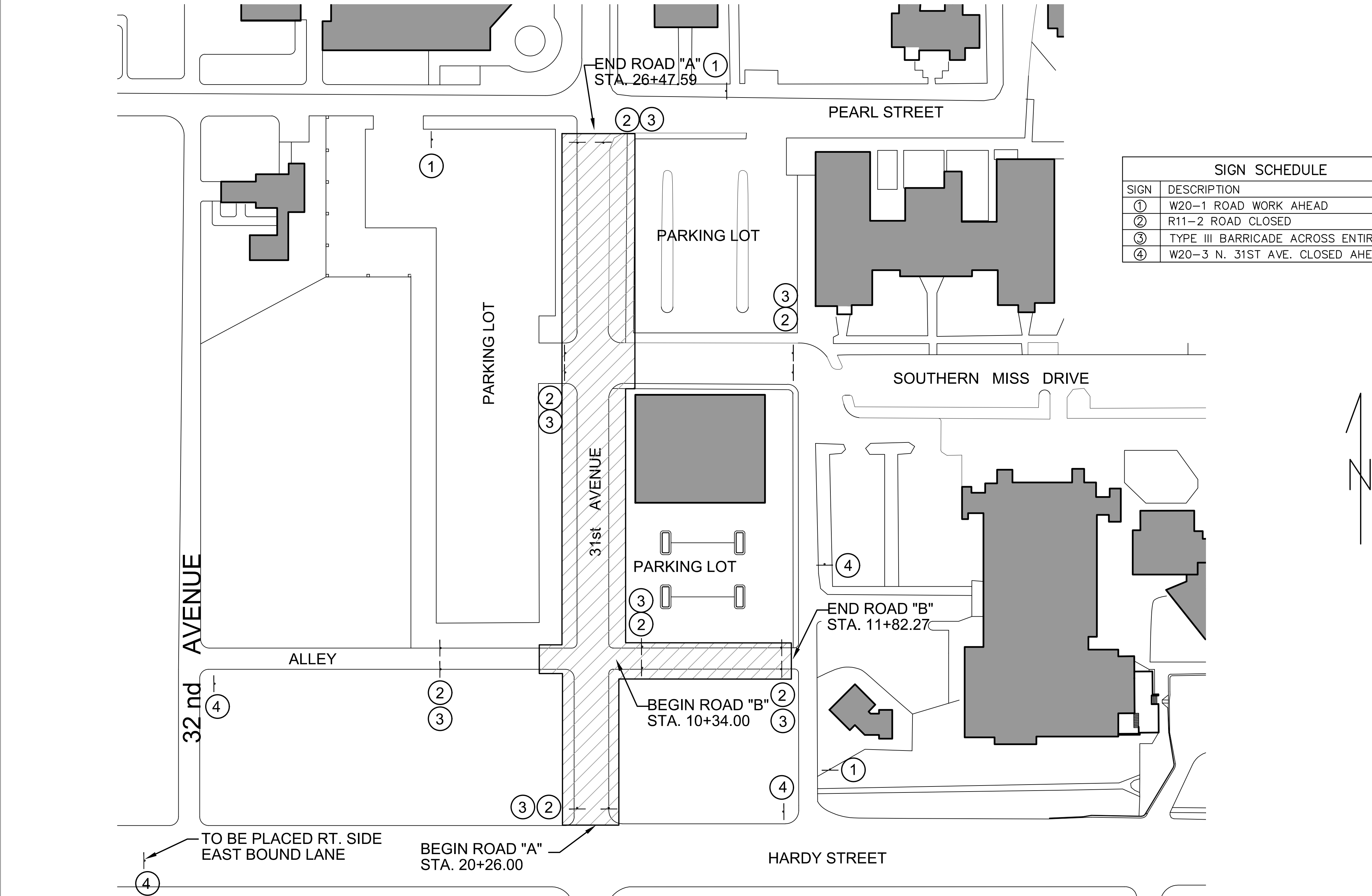
| TRAFFIC SIGNS REQUIRED     |       |                     |      |
|----------------------------|-------|---------------------|------|
| STATION                    | TYPE  | REMARKS             | SIDE |
| 9+27 ALLEY                 | W11-2 | PEDESTRIAN CROSSING | RT.  |
| 10+76 ALLEY                | W11-2 | PEDESTRIAN CROSSING | LT.  |
| 23+75                      | W11-2 | PEDESTRIAN CROSSING | RT.  |
| 24+40                      | R1-1  | STOP SIGN           | RT.  |
| 24+85                      | W11-2 | PEDESTRIAN CROSSING | LT.  |
| 26+26                      | R1-1  | STOP SIGN           | RT.  |
| TOTAL SIGNS                |       |                     |      |
| 4 - WARNING SIGNS REQ'D    |       |                     |      |
| 2 - REGULATORY SIGNS REQ'D |       |                     |      |

NOTE: ALL STRIPING AND LEGENDS ARE TO BE THERMOPLASTIC  
4" WIDE THERMOPLASTIC TRAFFIC STRIPE (CONTINUOUS WHITE) (90 MILS) 0.011 MILES  
4" WIDE THERMOPLASTIC TRAFFIC STRIPE (CONTINUOUS YELLOW) (90 MILS) 0.052 MILES  
THERMOPLASTIC LEGEND (WHITE) (120 MILS) 664.40 SQ. FT.



CROSS-WALK DETAIL  
PAID FOR AS LEGEND





| SIGN SCHEDULE |                                          |
|---------------|------------------------------------------|
| SIGN          | DESCRIPTION                              |
| ①             | W20-1 ROAD WORK AHEAD                    |
| ②             | R11-2 ROAD CLOSED                        |
| ③             | TYPE III BARRICADE ACROSS ENTIRE ROADWAY |
| ④             | W20-3 N. 31ST AVE. CLOSED AHEAD          |

CONSTRUCTION NOTES:

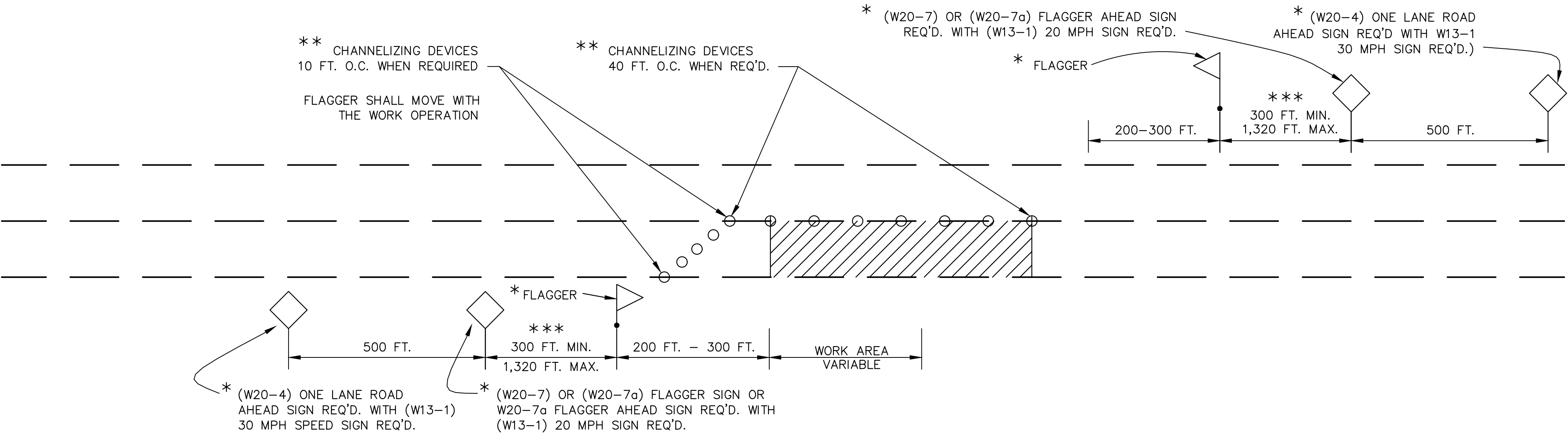
- AFTER ALL CONSTRUCTION IS COMPLETE, INCLUDING THE THE INSTALLATION OF THE GUARDRAILS, COMPLETE IN PLACE, BUT PRIOR TO STRIPING, THE ENTIRE PROJECT SHALL BE OPENED TO ALL TRAFFIC
- WHENEVER PAVEMENT CONSTRUCTION HAS PROGRESSED SUFFICIENTLY TO PERMIT TRAFFIC MOVEMENT THAT IS UNRESTRICTED BY CHANNELIZING OR OTHER TRAFFIC CONTROL METHODS, TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED PER S-619.08, THE CONTRACTOR REPLACE RAISED PAVEMENT MARKERS AS NECESSARY. IF MORE THAN ONE BITUMINOUS LIFT IS REQUIRED, THE TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED AND MAINTAINED IN A LIKE MANNER AFTER EACH LIFT. THE TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED PRIOR TO THE APPLICATION OF THE SEAL COAT. THIS WORK IS NOT A SEPARATE PAY ITEM BUT WILL BE CONSIDERED INCLUDED IN THE LUMP SUM PAYMENT FOR PAY ITEM NO. S-618-A, "MAINTENANCE OF TRAFFIC".
- PRIOR TO OPENING THE PROJECT TO TRAFFIC, R4-1 "DO NOT PASS" OR R4-2 "PASS WITH CARE" SIGNS SHALL BE INSTALLED ON THE RIGHT HAND SIDE OF THE ROAD AT THE B.O.P. AND THE E.O.P. AND THE BEGINNING AND THE END OF THE NO-PASSING ZONES AND W14-3 SIGNS ON THE LEFT HAND SIDE OF THE ROADWAY IN ACCORDANCE WITH THE PERMANENT STRIPING SCHEDULE IN THE PLANS. THIS WORK IS NOT A SEPARATE PAY ITEM BUT WILL BE CONSIDERED INCLUDED IN THE LUMP SUM PAYMENT FOR PAY ITEM NO. S-618-A, "MAINTENANCE OF TRAFFIC".

DURING STRIPING OPERATIONS

- A SHADOW VEHICLE SHALL BE POSITIONED APPROXIMATELY 300 FEET IN FRONT OF AND BEHIND PAINTING OPERATIONS.
- THE SHADOW VEHICLE SHALL CARRY A SIGN "ROADWAY STRIPING AHEAD". BOTTOM OF SIGN SHALL BE A MINIMUM OF SIX (6) FEET ABOVE PAVEMENT.
- A FLASHING YELLOW LIGHT SHALL BE INSTALLED ABOVE TOP OF THE WARNING SIGNS.
- A FLASHING YELLOW LIGHT SHALL BE INSTALLED ON ALL VEHICLES USED IN THE MARKING OPERATIONS.

GENERAL NOTES

- THE CONTRACTOR SHALL INSTALL TRAFFIC CONTROL DEVICES SUCH AS CONES, DRUMS, FLASHERS, BARRICADES, SIGNS, ETC. TO SAFELY CHANNEL OR DIRECT TRAFFIC. WHEN NECESSARY, FLAGGERS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL DEVICES. AND ADVANCE FLAGGER AHEAD SIGN IS REQUIRED FOR USE IN ADVANCE OF FLAGGERS EXCEPT DURING BRIEF PERIODS AND EMERGENCY SITUATIONS.
- TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
- CONTRACTOR SHALL INSTALL ORANGE MESH BARRICADE AROUND THE PERIMETER OF THE ENTIRE PROJECT TO KEEP STUDENTS OUT OF WORKS ZONES.
- PAY FOR INSTALLATION MAINTENANCE AND REMOVAL OF TRAFFIC CONTROL DEVICES AND MESH BARRICADE WILL BE MADE UNDER PAY ITEM NOS. S-618-A AND S-618-B.
- TRAFFIC CONTROL DEVICES SHALL BE INSTALLED WHENEVER NECESSARY, REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED, AND BE REMOVED IMMEDIATELY THEREAFTER.
- THESE ARE MINIMUM REQUIREMENTS AND IN NO WAY RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO MAINTAIN TRAFFIC IN A SAFE MANNER.
- SEE STANDARD DRAWINGS SDTCP-10 AND SA-TSP-1 FOR CORRECT PLACEMENT AND INSTALLATION OF SIGNS AND BARRICADES.
- CONTRACTOR SHALL INSTALL ADVANCE WARNING SIGNS SUCH AS WATCH FOR TRUCKS, TRUCKS TURNING, TRUCKS CROSSING, ETC. AND PLACE FLAGGERS AS DIRECTED BY THE COUNTY ENGINEER ALONG PUBLIC ROADS ON EACH SIDE OF BORROW PIT ENTRANCE OR CROSSING OR PUBLIC ROADS.
- SEE SPECIAL PROVISION 901-S-618-1 FOR FURTHER CONTRACT INFORMATION



ONE LANE ROAD CLOSURE WHEN REQUIRED AND AS DIRECTED BY THE ENGINEER  
NTS



|       |             |
|-------|-------------|
| STATE | PROJECT NO. |
| MISS. |             |

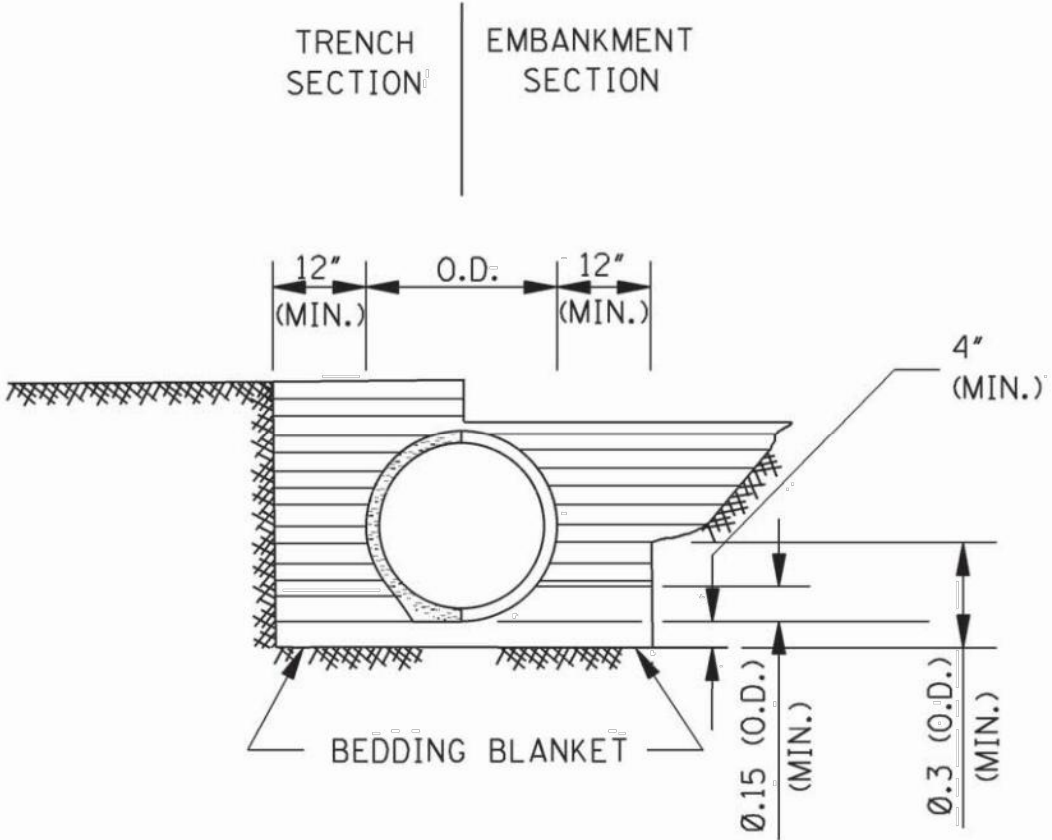
| CORRUGATED STEEL AND ALUMINUM PIPE (ROUND)<br>H-20 LOADING |                                                                    |                                                                 |                                                                                 |                                                            |                                       |                                      |
|------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------|--------------------------------------|
| PIPE<br>DIAMETER<br>(in)                                   | MINIMUM COVER<br>FROM TOP OF<br>PIPE TO TOP<br>OF SUBGRADE<br>(in) | MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft)                      |                                                                                 |                                                            |                                       |                                      |
|                                                            |                                                                    | SHEET THICKNESS (in)                                            |                                                                                 |                                                            |                                       |                                      |
|                                                            |                                                                    | 0.064 STEEL<br>0.060 ALUM.<br>16 GAGE                           | 0.079 STEEL<br>0.075 ALUM.<br>14 GAGE                                           | 0.109 STEEL<br>0.105 ALUM.<br>12 GAGE                      | 0.138 STEEL<br>0.135 ALUM.<br>10 GAGE | 0.168 STEEL<br>0.164 ALUM.<br>8 GAGE |
|                                                            |                                                                    | 2 2/3" X 1/2"<br>CORRUGATED STEEL<br>RIVETED, WELDED OR HELICAL | 3" X 1" OR 5" X 1"<br>CORRUGATED STEEL<br>RIVETED, WELDED, HELICAL<br>OR BOLTED | 2 2/3" X 1/2"<br>CORRUGATED ALUMINUM<br>RIVETED OR HELICAL |                                       |                                      |
| 12"                                                        | 12"                                                                | 84' / - / 45'                                                   | 91' / - / 45'                                                                   | - / - / 78'                                                | - / - / 81'                           | - / - / 84'                          |
| 15"                                                        | 12"                                                                | 67' / - / -                                                     | 73' / - / -                                                                     | - / - / -                                                  | - / - / -                             | - / - / -                            |
| 18"                                                        | 12"                                                                | 56' / - / 30'                                                   | 61' / - / 30'                                                                   | - / - / 52'                                                | - / - / 54'                           | - / - / 56'                          |
| 24"                                                        | 12"                                                                | 42' / - / 22'                                                   | 46' / - / 22'                                                                   | 59' / - / 39'                                              | - / - / 41'                           | - / - / 42'                          |
| 30"                                                        | 12"                                                                | 34' / - / 18'                                                   | 36' / - / 18'                                                                   | 47' / - / 31'                                              | - / - / 32'                           | - / - / 34'                          |
| 36"                                                        | 12"                                                                | 28' / 48' / 15'                                                 | 30' / 60' / 15'                                                                 | 39' / 78' / 26'                                            | 41' / 89' / 27'                       | - / 101' / 28'                       |
| 42"                                                        | 12"                                                                | 31' / 41' / -                                                   | 43' / 51' / 26'                                                                 | 46' / 64' / 43'                                            | 48' / 71' / 43'                       | 50' / 79' / 44'                      |
| 48"                                                        | 12"                                                                | 27' / 36' / -                                                   | 37' / 45' / -                                                                   | 45' / 57' / 40'                                            | 46' / 61' / 41'                       | 47' / 66' / 43'                      |
| 54"                                                        | 12"                                                                | - / 32' / -                                                     | 33' / 40' / -                                                                   | 43' / 52' / 35'                                            | 44' / 55' / 37'                       | 45' / 59' / 38'                      |
| 60"                                                        | 12"                                                                | - / 29' / -                                                     | - / 36' / -                                                                     | 43' / 49' / -                                              | 43' / 51' / 33'                       | 44' / 54' / 34'                      |
| 66"                                                        | 12"                                                                | - / 26' / -                                                     | - / 33' / -                                                                     | 42' / 47' / -                                              | 43' / 49' / 30'                       | 43' / 51' / 31'                      |
| 72"                                                        | 12"                                                                | - / 24' / -                                                     | - / 30' / -                                                                     | - / 44' / -                                                | 41' / 47' / -                         | 43' / 49' / 29'                      |
| 78"                                                        | 12"                                                                | - / 22' / -                                                     | - / 28' / -                                                                     | - / 41' / -                                                | - / 46' / -                           | 39' / 47' / -                        |
| 84"                                                        | 12"                                                                | - / 21' / -                                                     | - / 26' / -                                                                     | - / 38' / -                                                | - / 45' / -                           | 35' / 46' / -                        |
| 90"                                                        | 12"                                                                | - / 19' / -                                                     | - / 24' / -                                                                     | - / 35' / -                                                | - / 43' / -                           | - / 45' / -                          |
| 96"                                                        | 12"                                                                | - / 18' / -                                                     | - / 22' / -                                                                     | - / 33' / -                                                | - / 40' / -                           | - / 44' / -                          |
| 102"                                                       | 24"                                                                | - / 17' / -                                                     | - / 21' / -                                                                     | - / 31' / -                                                | - / 38' / -                           | - / 42' / -                          |
| 108"                                                       | 24"                                                                | - / - / -                                                       | - / 20' / -                                                                     | - / 30' / -                                                | - / 35' / -                           | - / 39' / -                          |
| 114"                                                       | 24"                                                                | - / - / -                                                       | - / 19' / -                                                                     | - / 28' / -                                                | - / 34' / -                           | - / 37' / -                          |
| 120"                                                       | 24"                                                                | - / - / -                                                       | - / - / -                                                                       | - / 27' / -                                                | - / 32' / -                           | - / 35' / -                          |

NOTE: THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR 1/2", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS (AASHTO M 36M/M 36 & AASHTO M 196M/M 196).

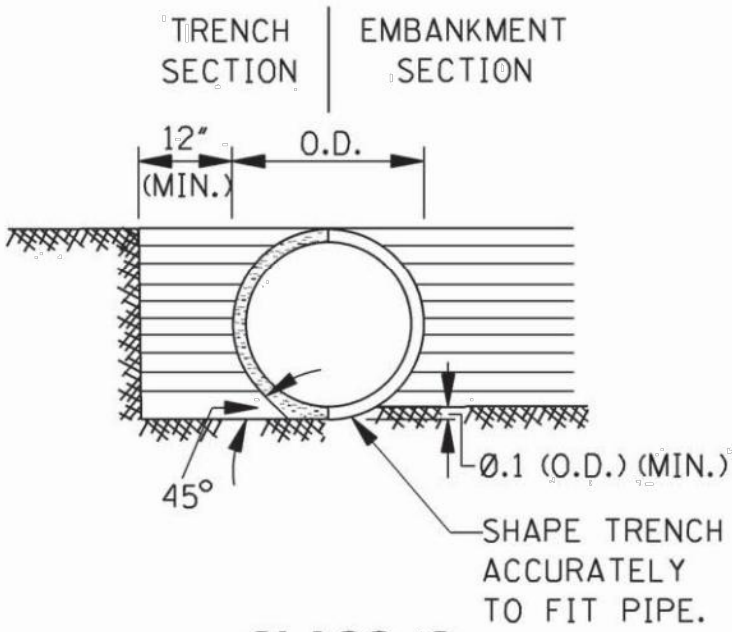
| CORRUGATED METAL PIPE ARCHES H-20 LOADING |                                            |                                     |                                                                                                  |                                          |                                                                                                                          |                                          |                                                                                                                          |
|-------------------------------------------|--------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| EQUIV.<br>DIAMETER<br>(in)                | PIPE<br>DIMENSION<br>(SPAN X RISE)<br>(in) | MINIMUM<br>CORNER<br>RADIUS<br>(in) | MINIMUM COVER<br>FROM TOP OF<br>PIPE TO TOP OF<br>SUBGRADE FOR<br>2 tons/ft <sup>2</sup><br>(in) | STEEL                                    |                                                                                                                          | ALUMINUM                                 |                                                                                                                          |
|                                           |                                            |                                     |                                                                                                  | MINIMUM<br>THICKNESS<br>REQUIRED<br>(in) | MAXIMUM FILL HEIGHT<br>ABOVE TOP OF PIPE (ft)<br>FOR THE FOLLOWING<br>CORNER BEARING PRESSURE<br>(tons/ft <sup>2</sup> ) | MINIMUM<br>THICKNESS<br>REQUIRED<br>(in) | MAXIMUM FILL HEIGHT<br>ABOVE TOP OF PIPE (ft)<br>FOR THE FOLLOWING<br>CORNER BEARING PRESSURE<br>(tons/ft <sup>2</sup> ) |
|                                           |                                            |                                     |                                                                                                  |                                          | 2 tons/ft <sup>2</sup> † 3 tons/ft <sup>2</sup>                                                                          |                                          | 2 tons/ft <sup>2</sup> † 3 tons/ft <sup>2</sup>                                                                          |
|                                           |                                            |                                     |                                                                                                  |                                          | 2 2/3" X 1/2" CORRUGATION<br>RIVETED, WELDED OR HELICAL                                                                  |                                          | 2 2/3" X 1/2" CORRUGATION<br>RIVETED OR HELICAL                                                                          |
| 15"                                       | 17" X 13"                                  | 3"                                  | 18"                                                                                              | 0.064"                                   | 13'                                                                                                                      | 0.060"                                   | 15'+                                                                                                                     |
| 18"                                       | 21" X 15"                                  | 3"                                  | 18"                                                                                              | 0.064"                                   | 12'                                                                                                                      | 0.060"                                   | 14'+                                                                                                                     |
| 24"                                       | 28" X 20"                                  | 3"                                  | 18"                                                                                              | 0.064"                                   | 10'                                                                                                                      | 0.060"                                   | 10'+ 15'+                                                                                                                |
| 30"                                       | 35" X 24"                                  | 3"                                  | 18"                                                                                              | 0.079"                                   | 9'                                                                                                                       | 0.060"                                   | 9'+ 14'                                                                                                                  |
| 36"                                       | 42" X 29"                                  | 3 1/2"                              | 18"                                                                                              | 0.079"                                   | 9'                                                                                                                       | 0.075"                                   | 9'+ 13'                                                                                                                  |
| 42"                                       | 49" X 33"                                  | 4"                                  | 18"                                                                                              | 0.079"                                   | 8'                                                                                                                       | 0.105"                                   | 8'+ 12'                                                                                                                  |
| 48"                                       | 57" X 38"                                  | 5"                                  | 18"                                                                                              | 0.109"                                   | 8'                                                                                                                       | 0.135"                                   | 8'+ 12'                                                                                                                  |
| 54"                                       | 64" X 43"                                  | 6"                                  | 18"                                                                                              | 0.109"                                   | 8'                                                                                                                       | 0.135"                                   | 8'+ 12'                                                                                                                  |
| 60"                                       | 71" X 47"                                  | 7"                                  | 18"                                                                                              | 0.138"                                   | 8'                                                                                                                       | 0.164"                                   | 8'+ 12'                                                                                                                  |
| 66"                                       | 77" X 52"                                  | 8"                                  | 18"                                                                                              | 0.168"                                   | 8'                                                                                                                       |                                          |                                                                                                                          |
| 72"                                       | 83" X 57"                                  | 9"                                  | 18"                                                                                              | 0.168"                                   | 9'                                                                                                                       |                                          |                                                                                                                          |
|                                           |                                            |                                     |                                                                                                  |                                          | 5" X 1" OR 3" X 1" CORRUGATION<br>RIVETED, WELDED OR HELICAL                                                             |                                          |                                                                                                                          |
| 36"                                       | 40" X 31"                                  | 5"                                  | 18"                                                                                              | 0.079"                                   | 12'                                                                                                                      |                                          | 15'+                                                                                                                     |
| 42"                                       | 46" X 36"                                  | 6"                                  | 18"                                                                                              | 0.079"                                   | 12'                                                                                                                      |                                          | 15'+                                                                                                                     |
| 48"                                       | 53" X 41"                                  | 7"                                  | 18"                                                                                              | 0.079"                                   | 12'                                                                                                                      |                                          | 15'+                                                                                                                     |
| 54"                                       | 60" X 46"                                  | 8"                                  | 18"                                                                                              | 0.079"                                   | 12'                                                                                                                      |                                          | 15'+                                                                                                                     |
| 60"                                       | 66" X 51"                                  | 9"                                  | 18"                                                                                              | 0.079"                                   | 12'                                                                                                                      |                                          | 15'+                                                                                                                     |
| 66"                                       | 73" X 55"                                  | 12"                                 | 18"                                                                                              | 0.079"                                   | 15'+                                                                                                                     |                                          | -                                                                                                                        |
| 72"                                       | 81" X 59"                                  | 14"                                 | 18"                                                                                              | 0.079"                                   | 15'                                                                                                                      |                                          | -                                                                                                                        |
| 78"                                       | 87" X 63"                                  | 14"                                 | 18"                                                                                              | 0.079"                                   | 14'                                                                                                                      |                                          | 15'+                                                                                                                     |
| 84"                                       | 95" X 67"                                  | 16"                                 | 18"                                                                                              | 0.109"                                   | 13'                                                                                                                      |                                          | 15'+                                                                                                                     |
| 90"                                       | 103" X 71"                                 | 16"                                 | 24"                                                                                              | 0.109"                                   | 12'                                                                                                                      |                                          | 15'+                                                                                                                     |
| 96"                                       | 112" X 75"                                 | 18"                                 | 24"                                                                                              | 0.109"                                   | 11'                                                                                                                      |                                          | 15'+                                                                                                                     |

NOTES:  
1. THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR 1/2", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS. (AASHTO M 36M/M 36 & AASHTO M 196M/M 196).

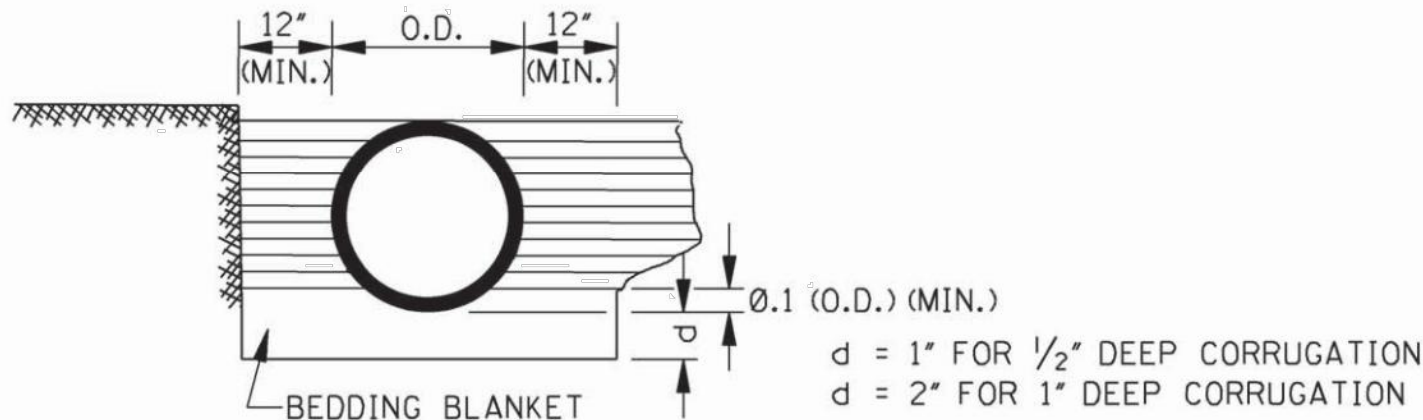
† 2. BEARING PRESSURES EXCEEDING 2 tons/ft<sup>2</sup> REQUIRED FOR GIVEN FILL HEIGHT SHALL HAVE FOUNDATION MATERIALS INVESTIGATED TO DETERMINE BEARING CAPACITY.



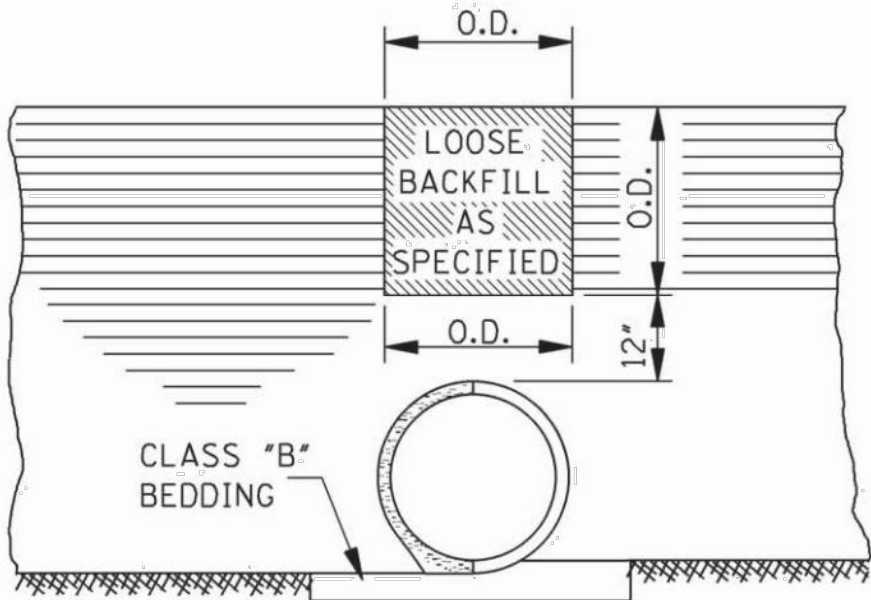
CLASS B



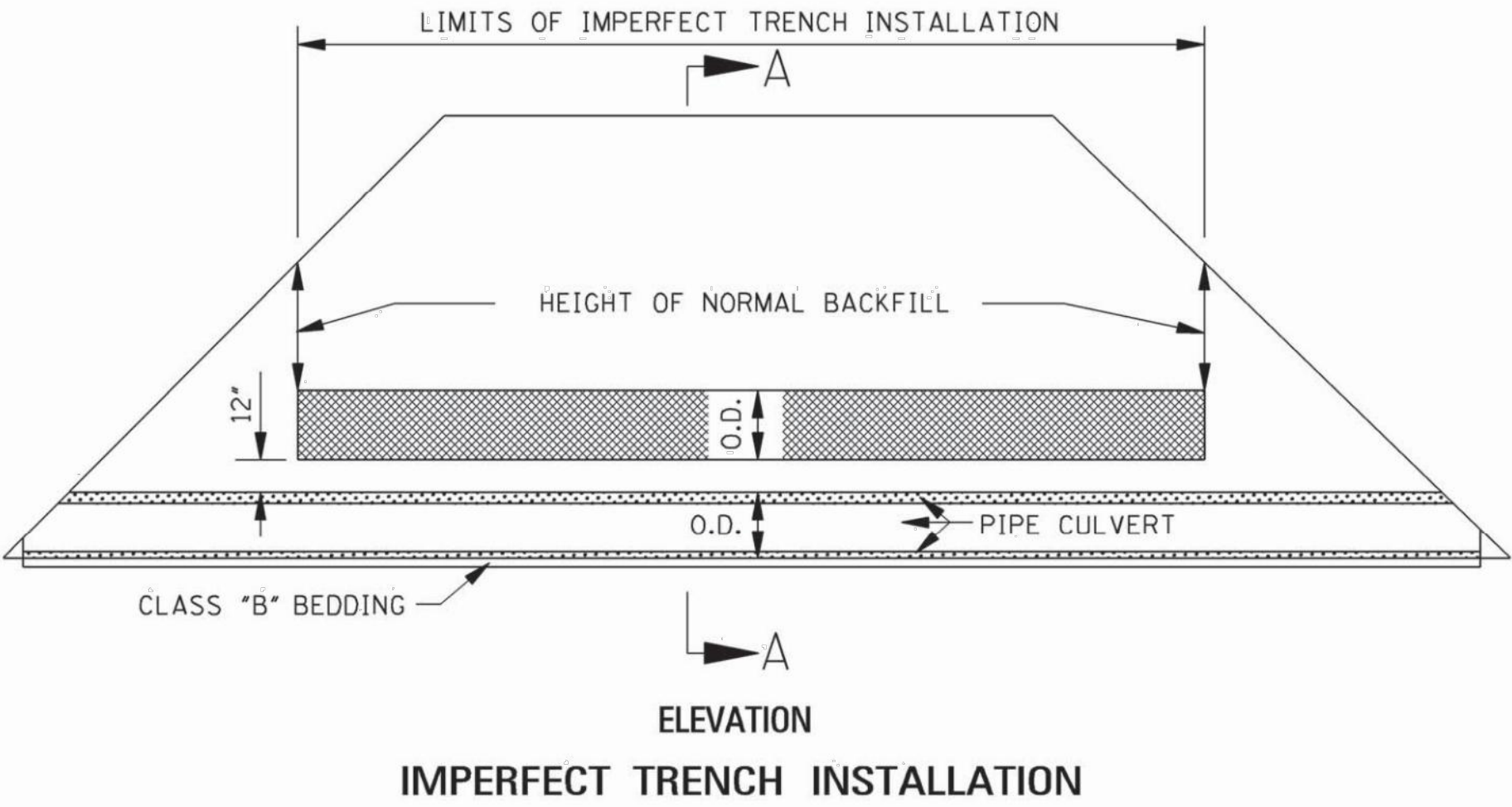
CLASS C



CLASS C MODIFIED



SECTION A-A



ELEVATION

IMPERFECT TRENCH INSTALLATION

| MAXIMUM HEIGHT OF FILL<br>OVER REINFORCED CONCRETE PIPE |                     |                    |            |
|---------------------------------------------------------|---------------------|--------------------|------------|
| CLASS<br>OF PIPE                                        | TYPE OF<br>BACKFILL | MAXIMUM COVER (ft) | COVER (ft) |
| III                                                     | NORMAL              | 16'                | -          |
| IV                                                      | NORMAL              | 23'                | 28'        |
| V                                                       | NORMAL              | 30'                | 36'        |
| IV                                                      | IMPERFECT           | -                  | 90'        |
| V                                                       | IMPERFECT           | -                  | 115'       |

NOTE: CLASS OF PIPE AND BEDDING TO BE CONSISTENT THROUGHOUT THE PIPE LENGTH.

MAXIMUM HEIGHT OF FILL OVER CLASS 2  
NONREINFORCED CONCRETE PIPE,  
PERFORATED AND/OR PLAIN,  
FOR UNDERDRAINS

| PIPE<br>SIZE<br>(in) | MAXIMUM COVER (ft)          |                  |              |                                             |
|----------------------|-----------------------------|------------------|--------------|---------------------------------------------|
|                      | BEDDING CLASS "C"/CLASS "B" |                  |              | PROJECTING<br>p= 0.7; R <sub>sd</sub> = 0.7 |
|                      | B <sub>d</sub><br>(in)      | SAND &<br>GRAVEL | DAMP<br>CLAY |                                             |
| 4"                   | 2.00'                       | *                | *            | 34'/42'                                     |
| 6"                   | 2.00'                       | *                | *            | 25'/30'                                     |
| 8"                   | 2.25'                       | *                | 16' / *      | 19'/24'                                     |
| 10"                  | 2.50'                       | *                | 12'/20'      | 16'/19'                                     |
| 12"                  | 2.75'                       | *                | 12'/18'      | 14'/17'                                     |

NOTES:  
\* 1. INDICATES NO LIMIT OF FILL HEIGHT (130 lbs/ft<sup>3</sup>).  
2. TRENCH WIDTH (B<sub>d</sub>) NO GREATER THAN 16" PLUS O.D.  
3. FACTOR OF SAFETY IS 1.25 ON MINIMUM ULTIMATE STRENGTH.  
4. MINIMUM COVER FOR HIGHWAY LOADS IS 18".  
5. PERFORATED PIPE SHALL BE TYPE 1.

GENERAL NOTES:

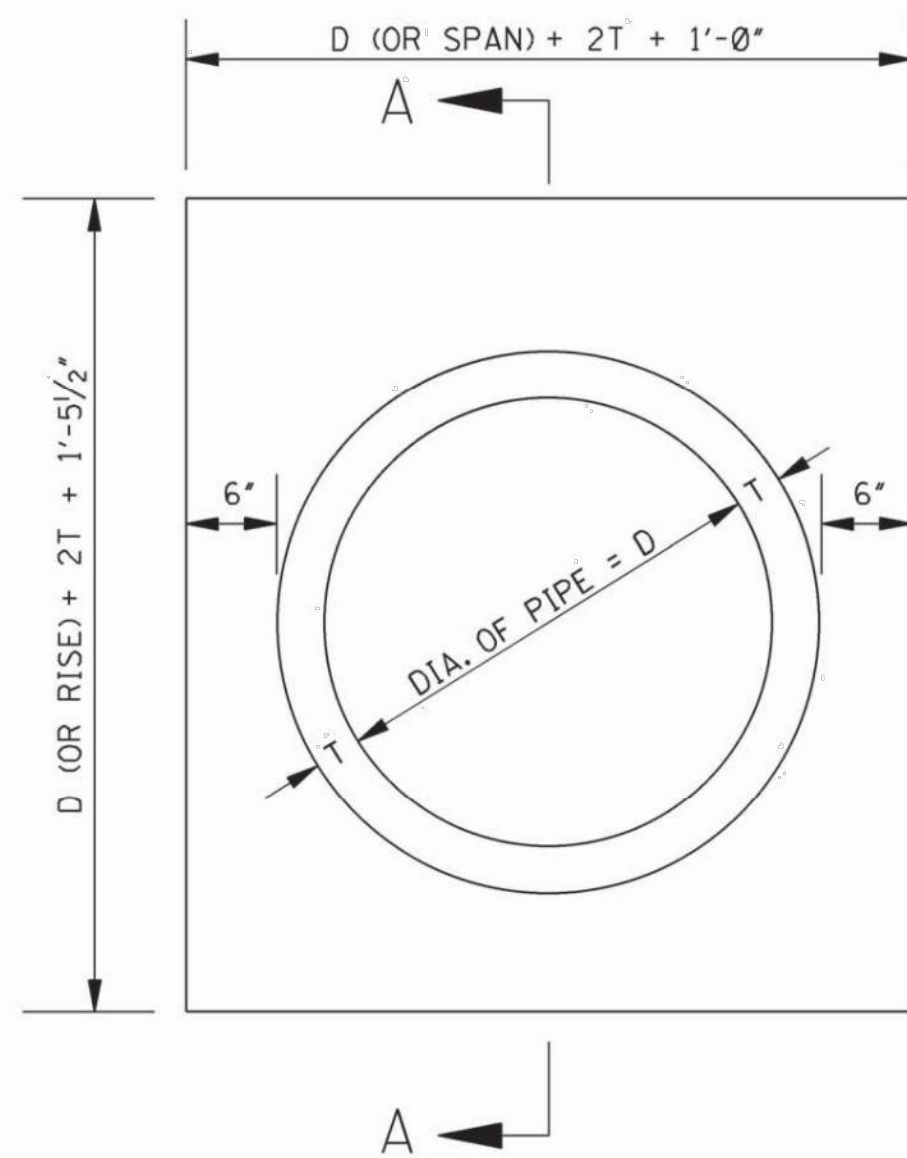
1. MINIMUM SPACING BETWEEN MULTIPLE LINES OF PARALLEL PIPE SHALL BE THE DISTANCE REQUIRED FOR INSTALLING THE ADJACENT FLARED END SECTIONS OR AS SHOWN ON THE HEADWALL DRAWINGS FOR CONDUITS REQUIRING HEADWALLS.
2. UNLESS OTHERWISE INDICATED, THE TOP OF THE PIPE SHALL BE BELOW THE TOP OF THE SUBGRADE, AND A MINIMUM OF 12" OF COVER OVER THE TOP OF THE PIPE SHALL BE MAINTAINED BETWEEN THE SHOULDER LINES.
3. WHERE PRE-BED PIPE IS INSTALLED, FLARED END SECTIONS FROM OTHER MANUFACTURERS MAY BE JOINED TO PRE-BED PIPE PROVIDED A CONCRETE COLLAR IS PLACED AT THE CONTRACTORS EXPENSE AND A DEFORMATION TO THE PIPE'S FLOWLINE IS NOT EVIDENT ON FINAL PLACEMENT.

|  |  |          |                                                                                      |                                                |
|--|--|----------|--------------------------------------------------------------------------------------|------------------------------------------------|
|  |  | BY       | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>ROADWAY DESIGN DIVISION<br>STANDARD PLAN |                                                |
|  |  | REVISION | <b>PIPE CULVERT<br/>INSTALLATION</b>                                                 |                                                |
|  |  | DATE     | ISSUE DATE: OCTOBER 1, 1998                                                          |                                                |
|  |  |          |                                                                                      | WORKING NUMBER<br>PI-1<br>SHEET NUMBER<br>6300 |



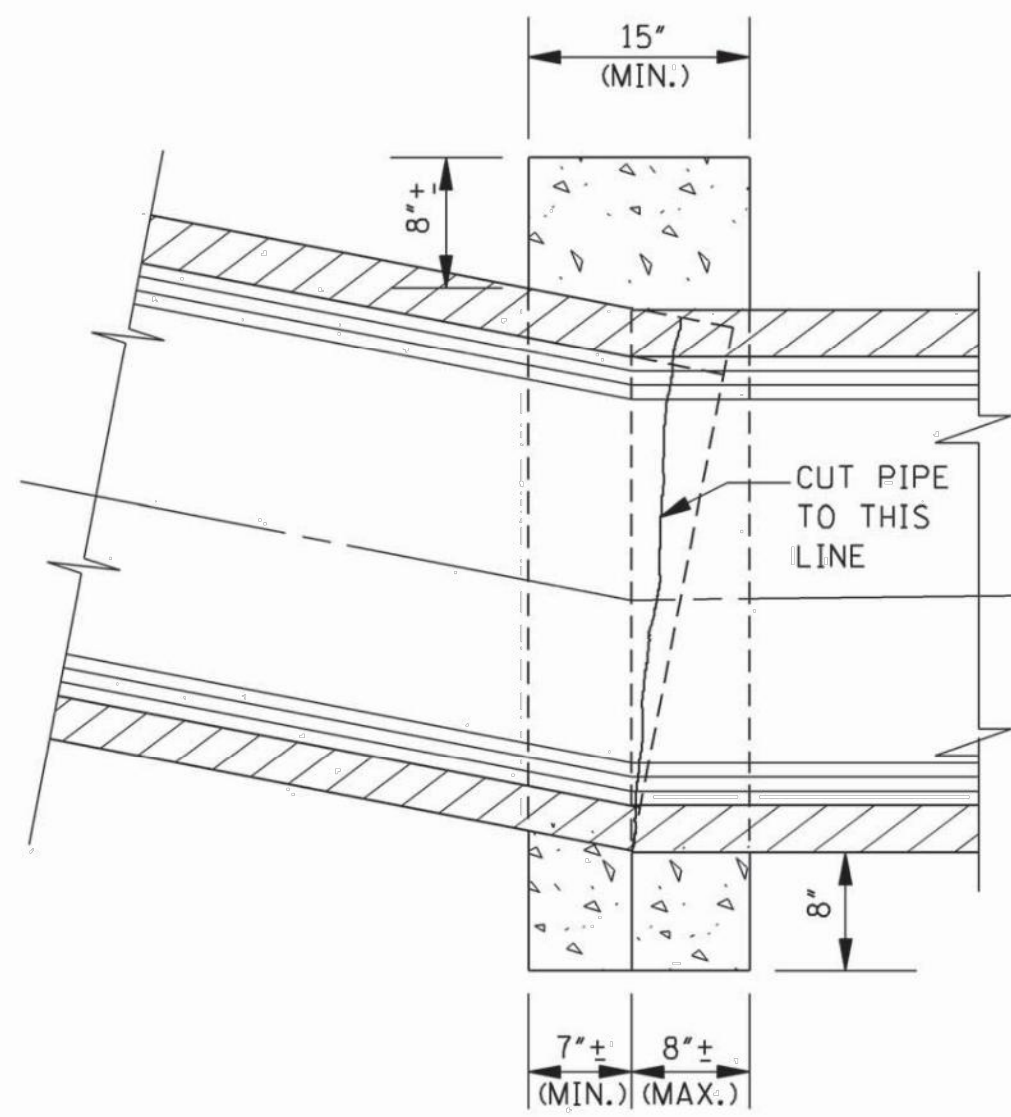
A cross-sectional diagram of a bridge structure. The diagram shows a trapezoidal bridge deck with a flat top. A horizontal dimension line at the top indicates the "CROWN WIDTH". Below the deck, a wavy line represents the "ORIGINAL GROUND LINE". A "PIPE CULVERT" is shown passing through the bridge deck. The culvert is supported by a "CONCRETE COLLAR" which is labeled "SEE DETAILS". The bridge deck is shown with a cross-hatched pattern on its top surface. The ground line is shown with a wavy pattern. The culvert is shown with a series of rectangular segments.

## TYPICAL INSTALLATION FOR PIPE CULVERT WITH BROKEN FLOW LINE



### ELEVATION OF CONCRETE COLLAR

NOTE: CIRCULAR PIPE IS SHOWN, ARCH PIPE IS SIMILAR.



## SECTION A-A

GENERAL NOTE:

1. THE FOLLOWING QUANTITIES SHALL BE THE BASIS FOR PAYMENT  
UNLESS AUTHORIZED MODIFICATIONS ARE MADE:

| QUANTITIES FOR<br>CONCRETE COLLAR FOR PIPE CULVERTS |                                          |              |                                          |
|-----------------------------------------------------|------------------------------------------|--------------|------------------------------------------|
| CIRCULAR PIPE                                       |                                          | ARCH PIPE    |                                          |
| DIA. OF PIPE                                        | CLASS "B" CONCRETE<br>(yd <sup>3</sup> ) | SIZE OF PIPE | CLASS "B" CONCRETE<br>(yd <sup>3</sup> ) |
| 12"                                                 | 0.240                                    |              |                                          |
| 15"                                                 | 0.260                                    | 18 x 11      | 0.280                                    |
| 18"                                                 | 0.320                                    | 22 x 13      | 0.310                                    |
| 24"                                                 | 0.410                                    | 29 x 18      | 0.410                                    |
| 30"                                                 | 0.510                                    | 36 x 23      | 0.490                                    |
| 36"                                                 | 0.620                                    | 44 x 27      | 0.600                                    |
| 42"                                                 | 0.730                                    | 51 x 31      | 0.690                                    |
| 48"                                                 | 0.850                                    | 58 x 36      | 0.820                                    |
| 54"                                                 | 0.980                                    | 65 x 40      | 0.920                                    |
| 60"                                                 | 1.110                                    | 73 x 45      | 1.070                                    |
| 66"                                                 | 1.248                                    | 88 x 54      | 1.366                                    |
| 72"                                                 | 1.393                                    |              |                                          |

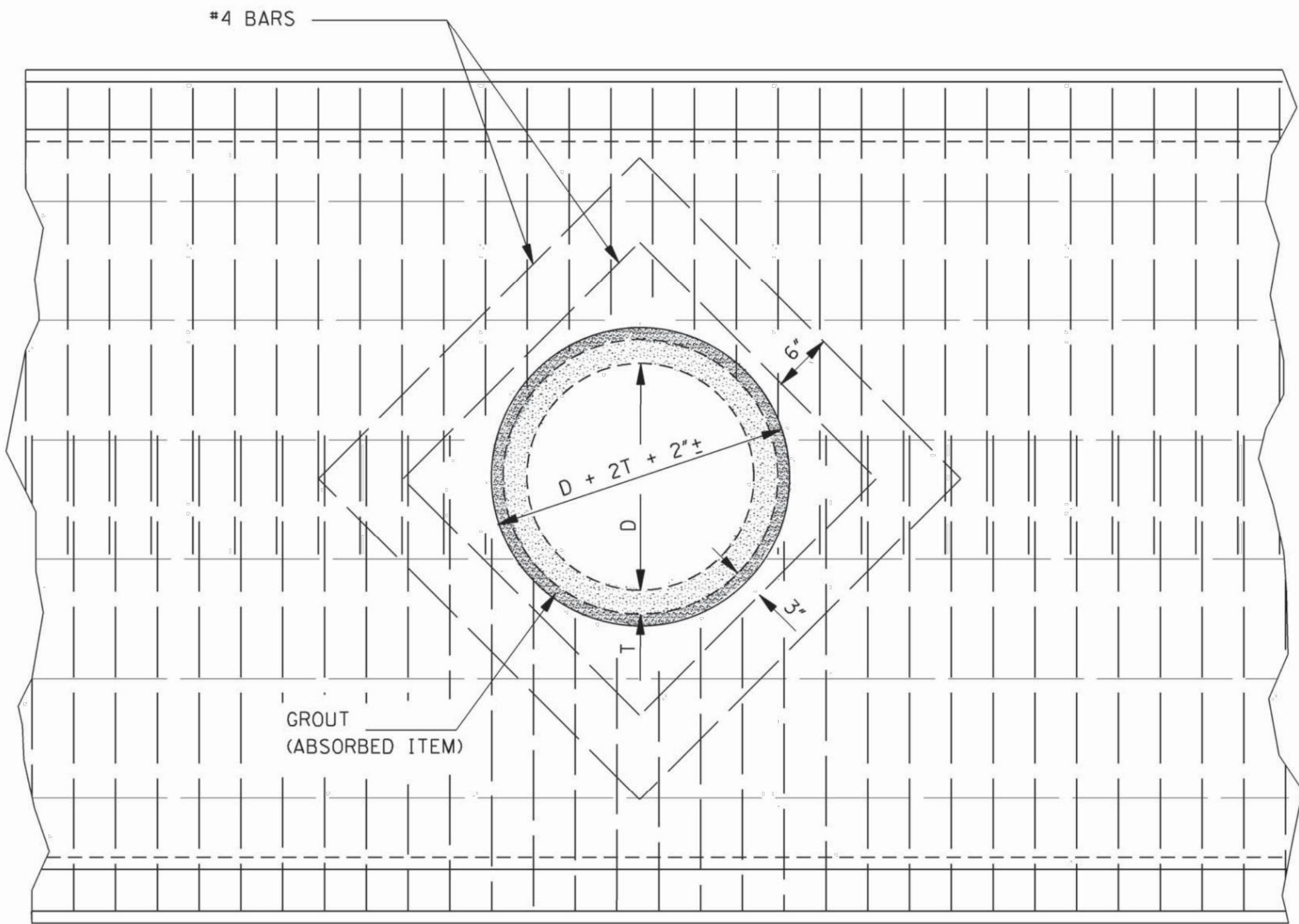
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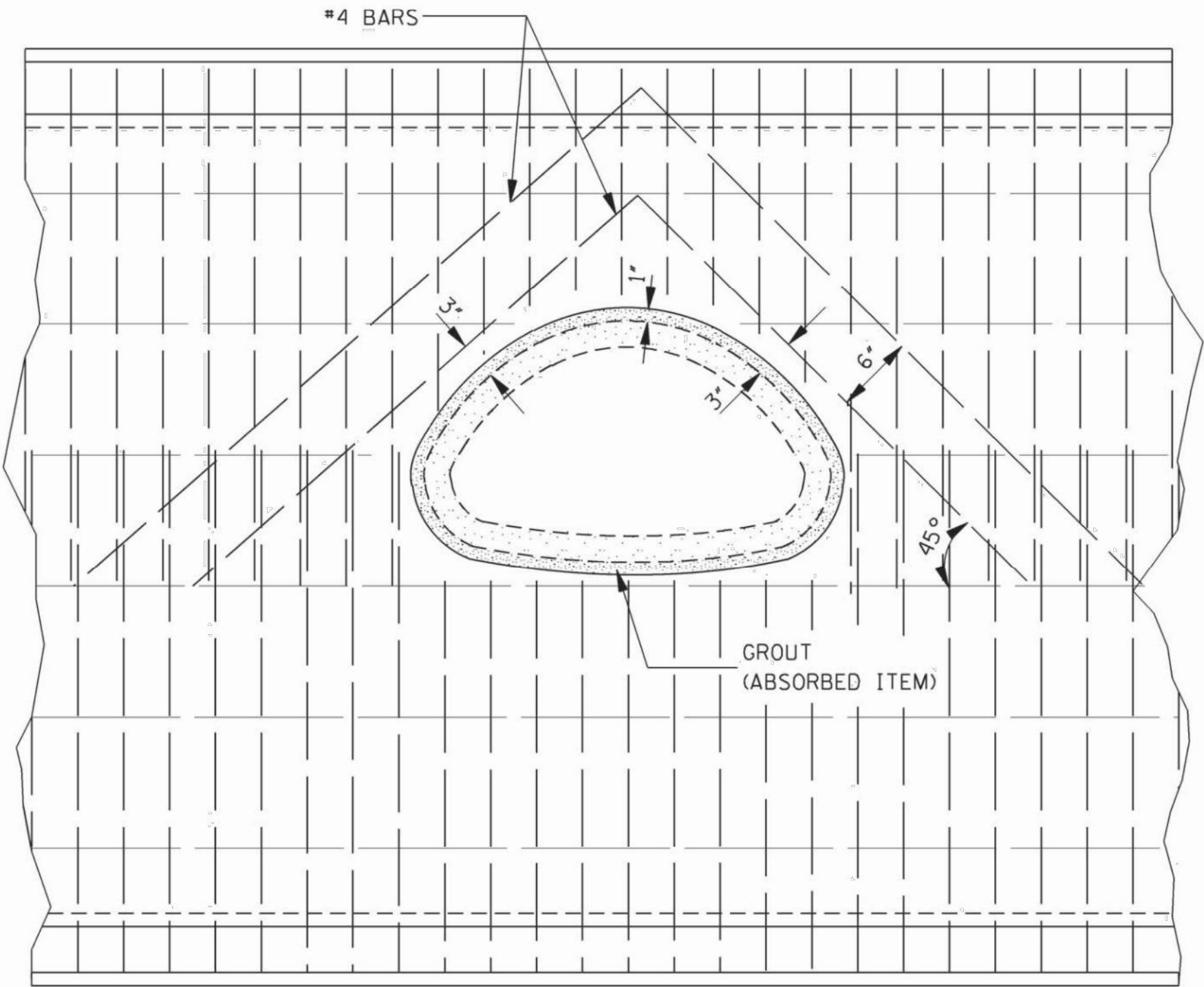




|       |             |
|-------|-------------|
| STATE | PROJECT NO. |
| MISS. |             |



ELEVATION SHOWING CIRCULAR PIPE  
STUBBED INTO BOX CULVERT BARREL OR WING-WALL

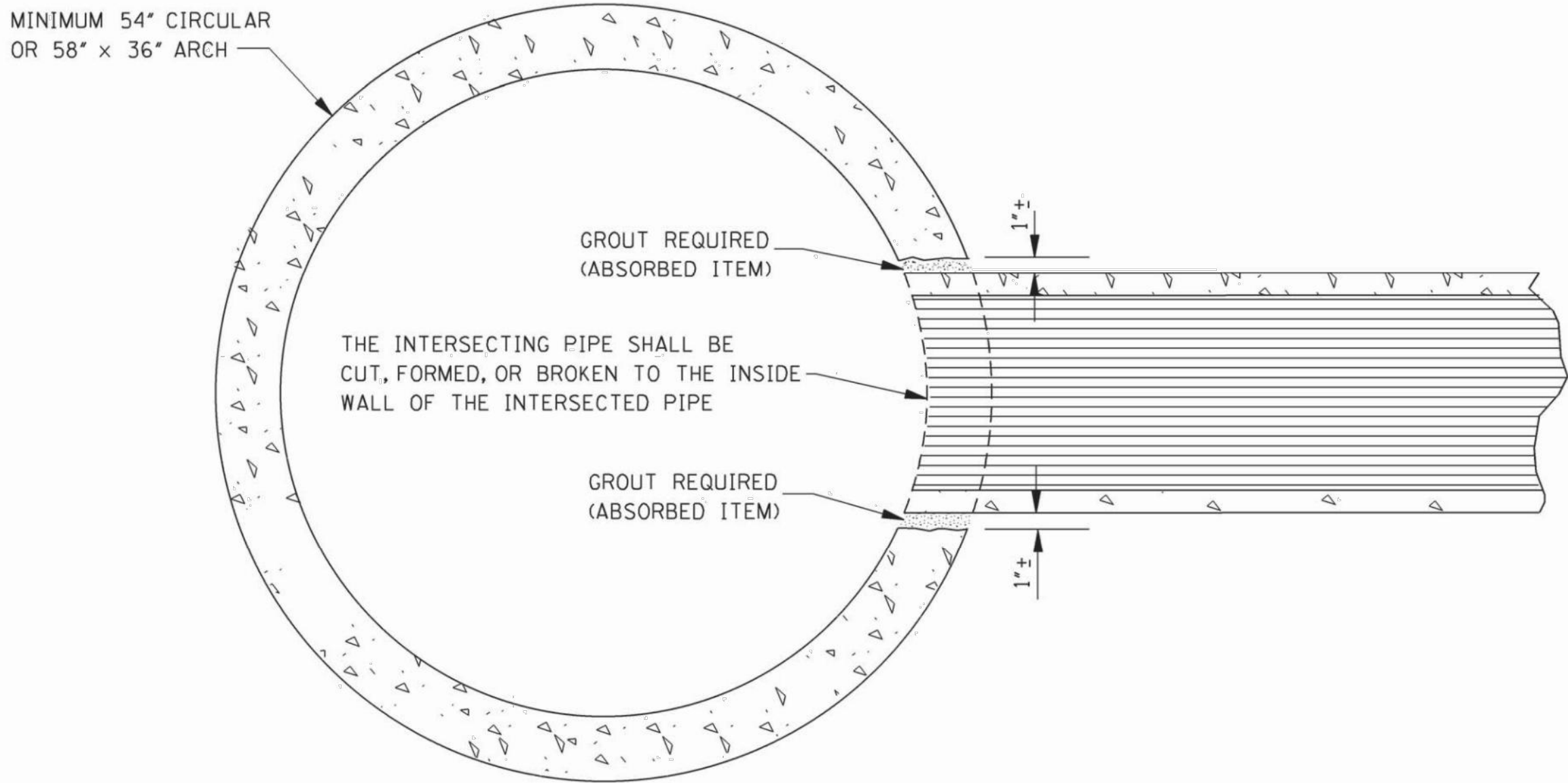


ELEVATION SHOWING ARCH PIPE STUBBED  
INTO BOX CULVERT BARREL OR WING-WALL

| BAR LIST  |             |           |
|-----------|-------------|-----------|
| PIPE SIZE | #4 BARS NO. | LGTH.     |
| 18"       | 4           | 2'-6"     |
|           | 4           | 3'-6"     |
| 24"       | 4           | 3'-1"     |
|           | 4           | 4'-1"     |
| 30"       | 4           | 3'-8 1/2" |
|           | 4           | 4'-8 1/2" |
| 22" X 13" | 2           | 3'-10"    |
|           | 2           | 4'-9"     |
| 29" X 18" | 1           | 5'-4"     |
|           | 2           | 4'-6"     |
|           | 2           | 5'-5"     |
|           | 1           | 6'-3"     |

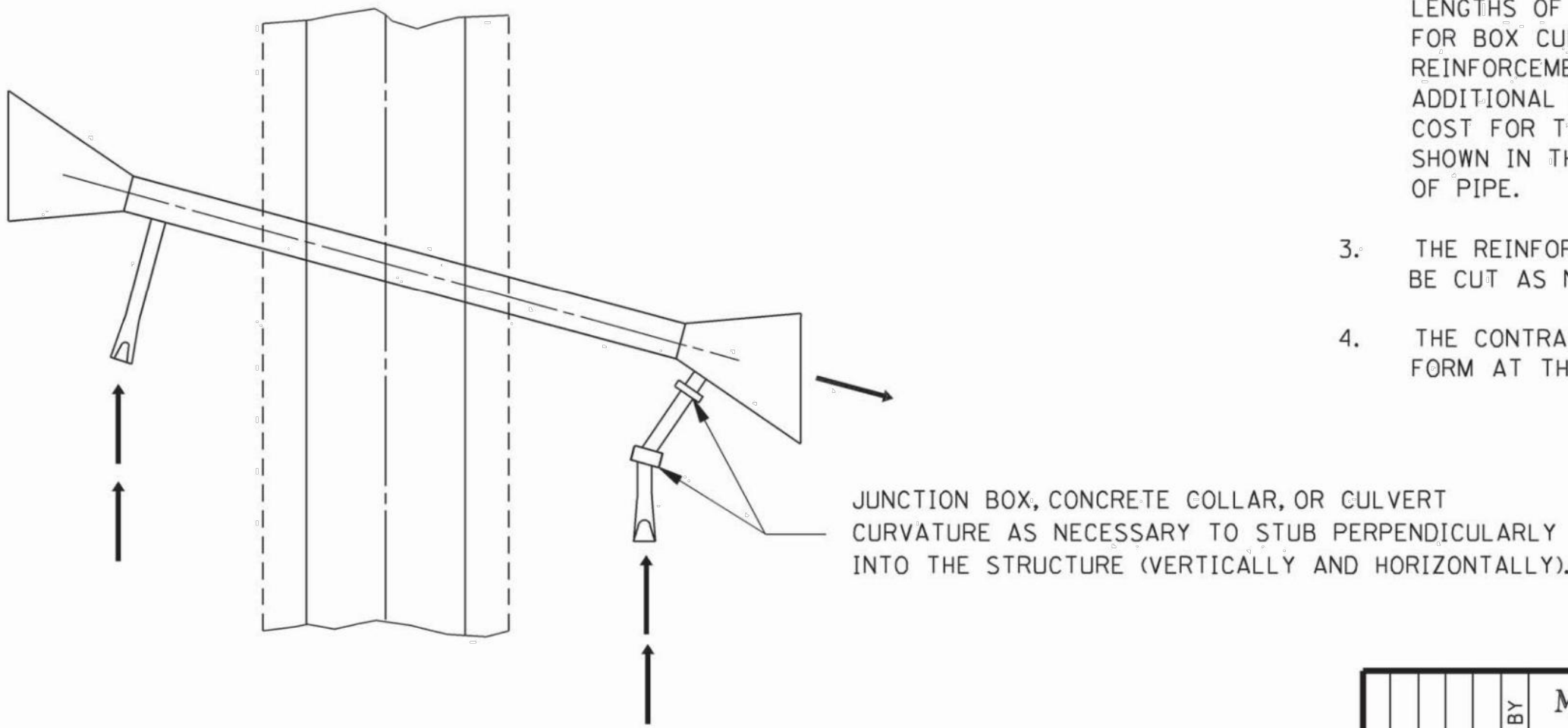
- NOTE:
1. A 24" DIAMETER PIPE IS THE MAXIMUM SIZE THAT MAY BE STUBBED INTO A 54" DIAMETER PIPE.
  2. A 60" DIAMETER PIPE IS THE MINIMUM SIZE THAT A 30" DIAMETER PIPE MAY BE STUBBED INTO.

- GENERAL NOTES:
1. PAYMENT FOR WORK AND MATERIALS FOR STUBBING A PIPE CULVERT INTO A BOX CULVERT OR CONCRETE PIPE SHALL BE PAID FOR AS A BRANCH CONNECTION OF THE APPROPRIATE SIZE, TYPE AND DESCRIPTION.
  2. THE TABLE ON THIS SHEET INDICATES THE NUMBER AND LENGTHS OF ADDITIONAL REINFORCING STEEL BARS REQUIRED FOR BOX CULVERTS CONSTRUCTED. FOR A DOUBLE ROW OF REINFORCEMENT, DOUBLE THE NUMBER OF BARS SHOWN. THE ADDITIONAL REINFORCING STEEL SHALL BE INCLUDED IN THE COST FOR THIS TYPE OF BRANCH CONNECTION. THE QUANTITIES SHOWN IN THE TABLE ARE FOR THE MOST COMMON SIZES OF PIPE.
  3. THE REINFORCEMENT OF THE INTERSECTED BOX OR PIPE SHALL BE CUT AS NECESSARY TO ACCOMMODATE THE STUBBED PIPE.
  4. THE CONTRACTOR MAY INSERT THE INTERSECTING PIPE INTO THE FORM AT THE PROPER LOCATION IN LIEU OF FORMING BY BLOCKING OUT.



ELEVATION SHOWING PIPE CULVERT  
STUBBED INTO CONCRETE PIPE CULVERT

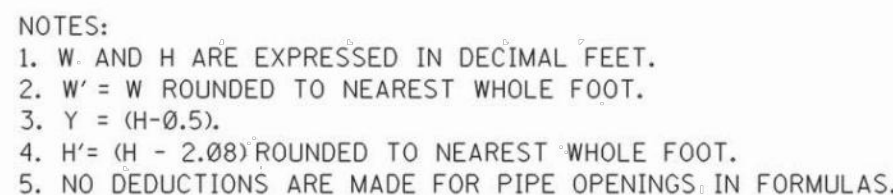
NOTE: TYPICAL INSTALLATION FOR MEDIAN STUB TO CROSSING DRAIN WITH MINIMUM COVER.



TYPICAL PLAN OF BRANCH CONNECTION  
TO BOX CULVERT WING-WALL

|          |  |                                          |  |
|----------|--|------------------------------------------|--|
| BY       |  | MISSISSIPPI DEPARTMENT OF TRANSPORTATION |  |
| REVISION |  | ROADWAY DESIGN DIVISION                  |  |
| DATE     |  | STANDARD PLAN                            |  |
|          |  | <b>BRANCH CONNECTIONS</b>                |  |
|          |  | WORKING NUMBER BC-1                      |  |
|          |  | SHEET NUMBER 6305                        |  |
|          |  | ISSUE DATE: OCTOBER 1, 1998              |  |





| QUANTITIES FOR ONE EXTENSION                            |      |              |          |        |        |
|---------------------------------------------------------|------|--------------|----------|--------|--------|
| BAR                                                     | SIZE | LENGTH       | SPACING  | NUMBER | TWIGHT |
| "E"                                                     | #4   | 5'-8"        | AS SHOWN | 3      | 11     |
| "G"                                                     | #4   | SEE SCHEDULE | 0'-11"   | 6      | 34     |
| "H"                                                     | #6   | 6'-9"        | AS SHOWN | 5      | 51     |
| "L"                                                     | #6   | 4'-9"        | AS SHOWN | 2      | 14     |
| TOTAL STEEL FOR ONE EXTENSION = 110 lbs                 |      |              |          |        |        |
| TOTAL CONCRETE FOR ONE EXTENSION = 0.89 yd <sup>3</sup> |      |              |          |        |        |

| W-2'-6" |                                 |     | BILL OF REINFORCING STEEL FOR 1'-5'-0" INLET |                                 |     |  |                                  |     |  |                                  |     |  |                            |     |  |                            |     |  |                    |     |     |                        |       |     |         |             |      |
|---------|---------------------------------|-----|----------------------------------------------|---------------------------------|-----|--|----------------------------------|-----|--|----------------------------------|-----|--|----------------------------|-----|--|----------------------------|-----|--|--------------------|-----|-----|------------------------|-------|-----|---------|-------------|------|
| H       | BAR "A"<br>L = 4'-2"<br>#4 @ 9" |     |                                              | BAR "C"<br>L = 5'-8"<br>#4 @ 9" |     |  | BAR "S"<br>L = 5'-8"<br>#4 @ 12" |     |  | BAR "O"<br>L = 5'-8"<br>#4 @ 12" |     |  | BAR "F"<br>L = 9'-8"<br>#6 |     |  | BAR "J"<br>L = 2'-3"<br>#4 |     |  | BAR "B"<br>#4 @ 9" |     |     | BAR "K"<br>#4 @ 9 1/2" |       |     | * TOTAL | TOTAL CONC. |      |
|         | NO.                             | lbs |                                              | NO.                             | lbs |  | NO.                              | lbs |  | NO.                              | lbs |  | NO.                        | lbs |  | NO.                        | lbs |  | LGTH.              | NO. | lbs |                        | LGTH. | NO. | lbs     |             | lbs  |
| 3'-6"   | 6                               | 17  |                                              | 7                               | 27  |  | 5                                | 19  |  | 5                                | 19  |  | 5                          | 73  |  | 4                          | 6   |  | 3'-10"             | 7   | 18  |                        | 2'-7" | 7   | 12      | 190         | 1.99 |
| 4'-0"   | 6                               | 17  |                                              | 7                               | 27  |  | 5                                | 19  |  | 7                                | 26  |  | 5                          | 73  |  | 4                          | 6   |  | 4'-4"              | 7   | 20  |                        | 3'-1" | 7   | 14      | 202         | 2.15 |
| 4'-6"   | 6                               | 17  |                                              | 7                               | 27  |  | 5                                | 19  |  | 7                                | 26  |  | 5                          | 73  |  | 4                          | 6   |  | 4'-10"             | 7   | 23  |                        | 3'-7" | 7   | 19      | 207         | 2.31 |
| 5'-0"   | 6                               | 17  |                                              | 7                               | 27  |  | 5                                | 19  |  | 9                                | 34  |  | 5                          | 73  |  | 4                          | 6   |  | 5'-4"              | 7   | 25  |                        | 4'-1" | 7   | 17      | 219         | 2.47 |
| 5'-6"   | 6                               | 17  |                                              | 7                               | 27  |  | 5                                | 19  |  | 9                                | 34  |  | 5                          | 73  |  | 4                          | 6   |  | 5'-10"             | 7   | 27  |                        | 4'-7" | 7   | 21      | 224         | 2.62 |
| 6'-0"   | 6                               | 17  |                                              | 7                               | 27  |  | 5                                | 19  |  | 11                               | 42  |  | 5                          | 73  |  | 4                          | 6   |  | 6'-4"              | 7   | 30  |                        | 5'-1" | 7   | 24      | 238         | 2.78 |
| 6'-6"   | 6                               | 17  |                                              | 7                               | 27  |  | 5                                | 19  |  | 11                               | 42  |  | 5                          | 73  |  | 4                          | 6   |  | 6'-10"             | 7   | 32  |                        | 5'-7" | 7   | 26      | 240         | 2.94 |
| 7'-0"   | 6                               | 17  |                                              | 7                               | 27  |  | 5                                | 19  |  | 13                               | 49  |  | 5                          | 73  |  | 4                          | 6   |  | 7'-4"              | 7   | 34  |                        | 6'-1" | 7   | 28      | 253         | 3.10 |
| 7'-6"   | 6                               | 17  |                                              | 7                               | 27  |  | 5                                | 19  |  | 13                               | 49  |  | 5                          | 73  |  | 4                          | 6   |  | 7'-10"             | 7   | 37  |                        | 6'-7" | 7   | 31      | 257         | 3.25 |

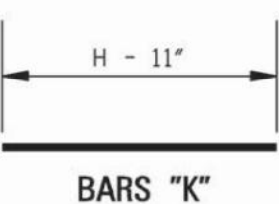
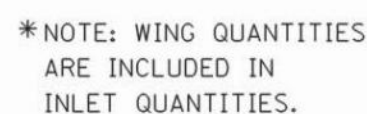
| W=3'-0" |                                 |     | BILL OF REINFORCING STEEL FOR 1'-5'-0" INLET |                                 |     |  |                                  |     |  |                                  |     |  |                          |     |       |                          |     |       |                    |     |     |                    |      |  |         |  |                |
|---------|---------------------------------|-----|----------------------------------------------|---------------------------------|-----|--|----------------------------------|-----|--|----------------------------------|-----|--|--------------------------|-----|-------|--------------------------|-----|-------|--------------------|-----|-----|--------------------|------|--|---------|--|----------------|
| H       | BAR "A"<br>L = 4'-8"<br>#4 @ 9" |     |                                              | BAR "C"<br>L = 6'-2"<br>#4 @ 9" |     |  | BAR "S"<br>L = 5'-8"<br>#4 @ 12" |     |  | BAR "D"<br>L = 5'-8"<br>#4 @ 12" |     |  | BAR "F"<br>L=9'-0"<br>#6 |     |       | BAR "J"<br>L=2'-3"<br>#4 |     |       | BAR "B"<br>#4 @ 9" |     |     | BAR "K"<br>#4 @ 9" |      |  | * TOTAL |  | TOTAL<br>CONC. |
|         | NO.                             | lbs |                                              | NO.                             | lbs |  | NO.                              | lbs |  | NO.                              | lbs |  | NO.                      | lbs | LGTH. | NO.                      | lbs | LGTH. | NO.                | lbs | lbs | yd <sup>3</sup>    |      |  |         |  |                |
| 3'-6"   | 6                               | 19  |                                              | 7                               | 29  |  | 5                                | 19  |  | 5                                | 19  |  | 5                        | 73  | 4     | 3'-10"                   | 7   | 18    | 2'-7"              | 7   | 12  | 194                | 2.15 |  |         |  |                |
| 4'-0"   | 6                               | 19  |                                              | 7                               | 29  |  | 5                                | 19  |  | 7                                | 26  |  | 5                        | 73  | 4     | 6'-4"                    | 7   | 20    | 3'-1"              | 7   | 14  | 206                | 2.32 |  |         |  |                |
| 4'-6"   | 6                               | 19  |                                              | 7                               | 29  |  | 5                                | 19  |  | 7                                | 26  |  | 5                        | 73  | 4     | 6'-10"                   | 7   | 23    | 3'-7"              | 7   | 17  | 211                | 2.49 |  |         |  |                |
| 5'-0"   | 6                               | 19  |                                              | 7                               | 29  |  | 5                                | 19  |  | 9                                | 34  |  | 5                        | 73  | 4     | 5'-4"                    | 7   | 25    | 4'-1"              | 7   | 19  | 223                | 2.65 |  |         |  |                |
| 5'-6"   | 6                               | 19  |                                              | 7                               | 29  |  | 5                                | 19  |  | 9                                | 34  |  | 5                        | 73  | 4     | 6'-5"                    | 7   | 27    | 4'-7"              | 7   | 21  | 228                | 2.82 |  |         |  |                |
| 6'-0"   | 6                               | 19  |                                              | 7                               | 29  |  | 5                                | 19  |  | 11                               | 42  |  | 5                        | 73  | 4     | 6'-6"                    | 7   | 30    | 5'-1"              | 7   | 24  | 240                | 2.99 |  |         |  |                |
| 6'-6"   | 6                               | 19  |                                              | 7                               | 29  |  | 5                                | 19  |  | 11                               | 42  |  | 5                        | 73  | 4     | 6'-10"                   | 7   | 32    | 5'-7"              | 7   | 26  | 245                | 3.15 |  |         |  |                |
| 7'-0"   | 6                               | 19  |                                              | 7                               | 29  |  | 5                                | 19  |  | 13                               | 49  |  | 5                        | 73  | 4     | 7'-4"                    | 7   | 34    | 6'-1"              | 7   | 28  | 257                | 3.32 |  |         |  |                |
| 7'-6"   | 6                               | 19  |                                              | 7                               | 29  |  | 5                                | 19  |  | 13                               | 49  |  | 5                        | 73  | 4     | 7'-10"                   | 7   | 37    | 6'-7"              | 7   | 31  | 262                | 3.44 |  |         |  |                |

| W=3'-6" |                                 |     | BILL OF REINFORCING STEEL FOR 1-5'-0" INLET |                                 |     |    |                                  |     |   |                                  |     |   |                          |     |    |                          |     |     |                    |       |     |                    |  |     |                 |             |
|---------|---------------------------------|-----|---------------------------------------------|---------------------------------|-----|----|----------------------------------|-----|---|----------------------------------|-----|---|--------------------------|-----|----|--------------------------|-----|-----|--------------------|-------|-----|--------------------|--|-----|-----------------|-------------|
| H       | BAR "A"<br>L = 5'-2"<br>#4 @ 9" |     |                                             | BAR "B"<br>L = 6'-8"<br>#4 @ 9" |     |    | BAR "S"<br>L = 5'-8"<br>#4 @ 12" |     |   | BAR "D"<br>L = 5'-8"<br>#4 @ 12" |     |   | BAR "E"<br>L=9'-8"<br>#6 |     |    | BAR "J"<br>L=2'-3"<br>#4 |     |     | BAR "B"<br>#4 @ 9" |       |     | BAR "K"<br>#4 @ 9" |  |     | * TOTAL         | TOTAL CONC. |
|         | NO.                             | lbs |                                             | NO.                             | lbs |    | NO.                              | lbs |   | NO.                              | lbs |   | NO.                      | lbs |    | LGTH.                    | NO. | lbs |                    | LGTH. | NO. | lbs                |  | lbs | yd <sup>3</sup> |             |
| 3'-6"   | 6                               | 21  | 7                                           | 31                              | 5   | 19 | 6                                | 23  | 5 | 73                               | 4   | 6 | 3'-10"                   | 7   | 18 | 2'-7"                    | 7   | 12  | 202                | 2.31  |     |                    |  |     |                 |             |
| 4'-0"   | 6                               | 21  | 7                                           | 31                              | 5   | 19 | 8                                | 30  | 5 | 73                               | 4   | 6 | 4'-4"                    | 7   | 20 | 3'-1"                    | 7   | 14  | 214                | 2.49  |     |                    |  |     |                 |             |
| 4'-6"   | 6                               | 21  | 7                                           | 31                              | 5   | 19 | 8                                | 30  | 5 | 73                               | 4   | 6 | 4'-10"                   | 7   | 23 | 3'-7"                    | 7   | 17  | 219                | 2.66  |     |                    |  |     |                 |             |
| 5'-0"   | 6                               | 21  | 7                                           | 31                              | 5   | 19 | 10                               | 38  | 5 | 73                               | 4   | 6 | 5'-4"                    | 7   | 25 | 4'-1"                    | 7   | 19  | 231                | 2.84  |     |                    |  |     |                 |             |
| 5'-6"   | 6                               | 21  | 7                                           | 31                              | 5   | 19 | 10                               | 38  | 5 | 73                               | 4   | 6 | 5'-10"                   | 7   | 27 | 4'-7"                    | 7   | 21  | 236                | 3.01  |     |                    |  |     |                 |             |
| 6'-0"   | 6                               | 21  | 7                                           | 31                              | 5   | 19 | 12                               | 45  | 5 | 73                               | 4   | 6 | 6'-4"                    | 7   | 30 | 5'-1"                    | 7   | 24  | 248                | 3.19  |     |                    |  |     |                 |             |
| 6'-6"   | 6                               | 21  | 7                                           | 31                              | 5   | 19 | 12                               | 45  | 5 | 73                               | 4   | 6 | 6'-10"                   | 7   | 32 | 5'-7"                    | 7   | 26  | 253                | 3.37  |     |                    |  |     |                 |             |
| 7'-0"   | 6                               | 21  | 7                                           | 31                              | 5   | 19 | 14                               | 53  | 5 | 73                               | 4   | 6 | 7'-4"                    | 7   | 34 | 6'-1"                    | 7   | 28  | 265                | 3.54  |     |                    |  |     |                 |             |
| 7'-6"   | 6                               | 21  | 7                                           | 31                              | 5   | 19 | 14                               | 53  | 5 | 73                               | 4   | 6 | 7'-10"                   | 7   | 37 | 6'-7"                    | 7   | 31  | 270                | 3.72  |     |                    |  |     |                 |             |

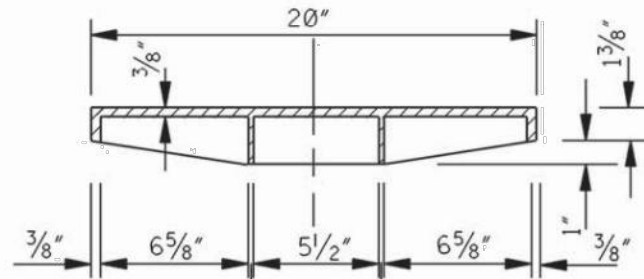
\* NOTE: WHERE INLET IS USED WITH CONCRETE PAVEMENT, ADD 73 lbs OF STEEL FOR BARS "M".

GENERAL NOTES:

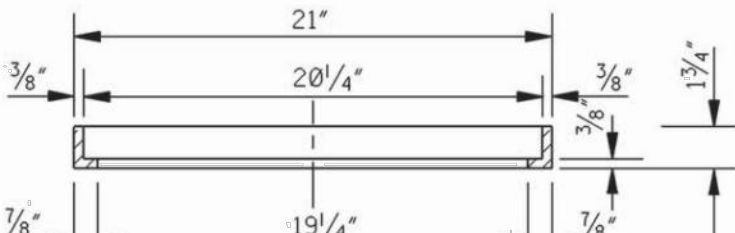
1. WHERE INLET OR INLET WITH EXTENSIONS IS USED WITH CONCRETE PAVEMENT WITH INTEGRAL CURB, THE PAVEMENT IS TO BE BLOCKED OUT TO THE DIMENSIONS AS SHOWN FOR THE GUTTER PORTION OF THE INLET OR INLET WITH EXTENSIONS). THE PORTION BLOCKED OUT SHALL BE PLACED INTEGRAL WITH THE TOP OF THE INLET OR INLET WITH EXTENSIONS). #8 DEFORMED BARS 30" LONG SHALL BE PLACED ON 18" CENTERS AT THE CENTER OF THE PAVEMENT. THESE BARS SHALL EXTEND INTO THE GUTTER PORTION OF THE INLET OR INLET WITH EXTENSIONS) 15". THE CONSTRUCTION JOINT BETWEEN THE CONCRETE PAVEMENT AND THE INLET OR INLET WITH EXTENSIONS) SHALL BE A KEYED JOINT AS SHOWN. A SMOOTH CONSTRUCTION JOINT WILL NOT BE PERMITTED. QUANTITIES FOR BLOCKED OUT AREA OF PAVEMENT SHALL BE INCLUDED IN QUANTITIES FOR INLET OR INLET WITH EXTENSIONS).
2. THE STANDARD SPECIFICATIONS ADOPTED BY THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION SHALL APPLY TO ALL ITEMS ON THIS SHEET.
3. THE QUANTITIES SHOWN, MINUS VOLUMETRIC DISPLACEMENT OF CONCRETE BY PIPE CULVERTS THROUGH INLET WALLS, WILL BE USED AS THE BASIS OF FINAL PAYMENT UNLESS THIS PLAN IS MODIFIED.
4. FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLE ARE INCREMENTS OF 6". BUT ANY DEPTHS OTHER THAN THESE SHOWN MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS, FALLING WITHIN THE LIMITS OF THE TABLE, MAY BE FOUND BY INTERPOLATION.
5. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMMODATE STORM SEWER. NO DEDUCTIONS ARE TO BE MADE IN STEEL QUANTITIES.



## BAR DETAILS



SECTION THRU  
MANHOLE COVER



SECTION THRU  
MANHOLE COVER RING

NOTE: WEIGHT OF RING & COVER = 79 lbs



NOTE: FIELD BEND BARS "L"  
TO CENTER OF GUTTER SECTION

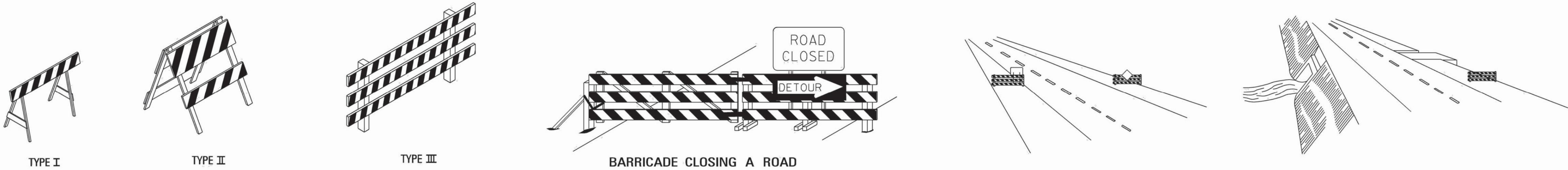
## PLAN



SECTION B-B







STANDARD BARRICADES

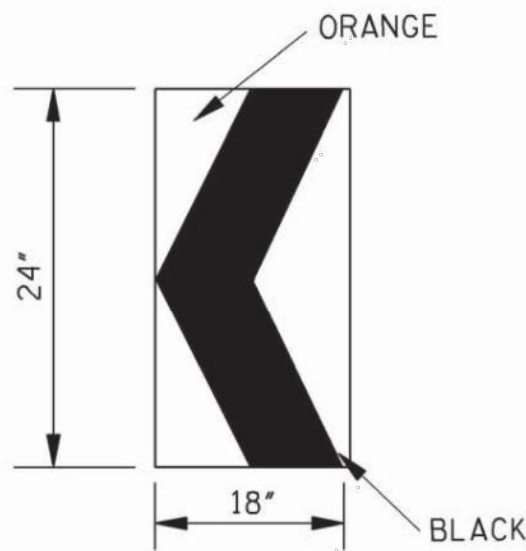
1. A TYPE I BARRICADE CONSISTS OF ONE (1) HORIZONTAL RAIL SUPPORTED BY A DEMOUNTABLE FRAME OR A LIGHT "A" FRAME. A TYPE I BARRICADE NORMALLY WOULD BE USED ON CONVENTIONAL ROADS OR URBAN STREETS AND ARTERIALS.
2. A TYPE II BARRICADE CONSISTS OF TWO (2) HORIZONTAL RAILS ON A LIGHT "A" FRAME. TYPE II BARRICADES ARE INTENDED FOR USE ON EXPRESSWAYS AND FREEWAYS AND OTHER HIGH-SPEED ROADWAYS.
3. TYPE I AND TYPE II BARRICADES ARE INTENDED FOR USE WHERE THE HAZARD IS RELATIVELY SMALL AS, FOR EXAMPLE, ON CITY STREETS, OR FOR THE MORE OR LESS CONTINUOUS DELIMITING OF A RESTRICTED ROADWAY, OR FOR TEMPORARY DAYTIME USE.
4. A TYPE III BARRICADE CONSISTS OF THREE (3) HORIZONTAL RAILS SUPPORTED BY FIXED POSTS, A RIGID SKID, A HEAVY DEMOUNTABLE FRAME OR A HEAVY, HINGED "A" FRAME.
5. TYPE III BARRICADES ARE INTENDED FOR USE ON CONSTRUCTION AND MAINTENANCE PROJECTS AS WING BARRICADES AND AT ROAD CLOSURES, WHERE THEY MUST REMAIN IN PLACE FOR EXTENDED PERIODS.
6. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
7. DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
8. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.

BARRICADE CHARACTERISTICS

|                                    | I                      | II                     | III                                                                           |
|------------------------------------|------------------------|------------------------|-------------------------------------------------------------------------------|
| WIDTH OF RAIL **                   | 8" MIN. - 12" MAX.     | 8" MIN. - 12" MAX.     | 8" MIN. - 12" MAX.                                                            |
| LENGTH OF RAIL **                  | 24" MIN.               | 24" MIN.               | 48" MIN.                                                                      |
| WIDTH OF STRIPE *                  | 6"                     | 6"                     | 6"                                                                            |
| HEIGHT                             | 36" MIN.               | 36" MIN.               | 60" MIN.                                                                      |
| NUMBER OF REFLECTORIZED RAIL FACES | 2 (ONE EACH DIRECTION) | 4 (TWO EACH DIRECTION) | 3 IF FACING TRAFFIC IN ONE DIRECTION<br>6 IF FACING TRAFFIC IN TWO DIRECTIONS |
| TYPE OF FRAME                      | LIGHT                  | LIGHT "A" FRAME        | POST OR SKID                                                                  |

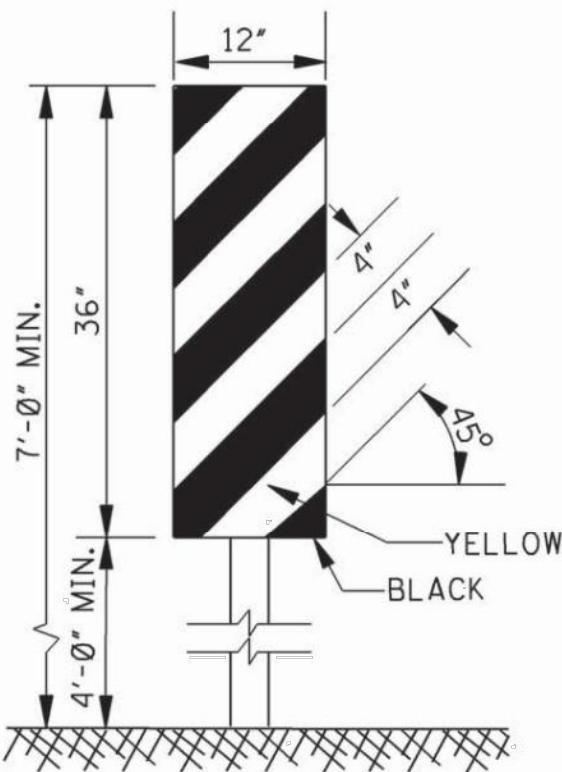
\* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

\*\* 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 in<sup>2</sup> OF REFLECTIVE AREA FACING TRAFFIC.



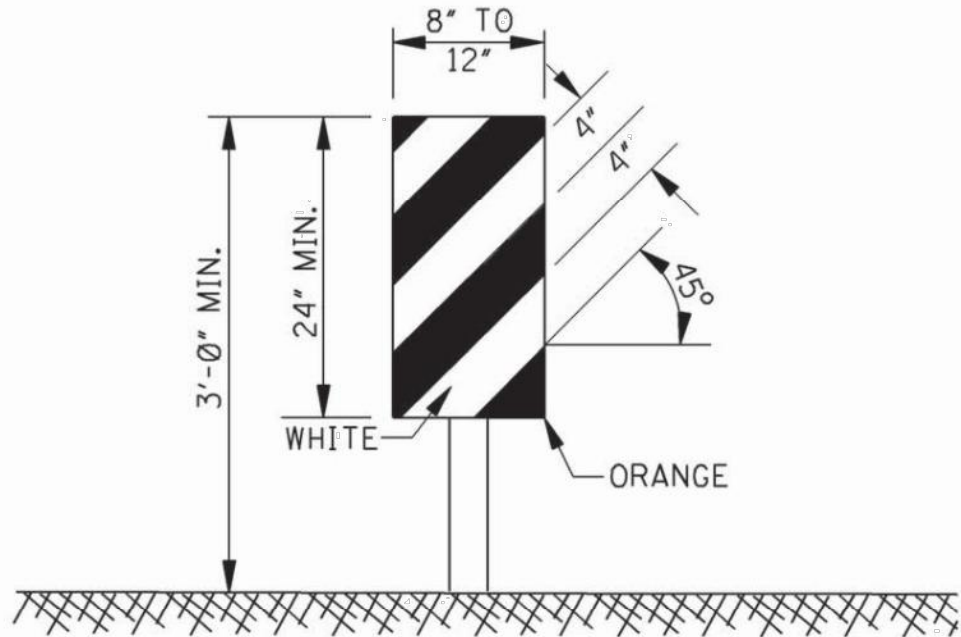
CHEVRON SIGN  
DETAIL

1. A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
2. THE CHEVRON SIGN SHALL BE MOUNTED ON FIXED POST OR RIGID SKID.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHALL BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.



TYPE 3 OBJECT MARKER  
(OM-3R)

1. TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
2. THE OM-3R IS SHOWN. THE OM-3L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.



VERTICAL PANEL

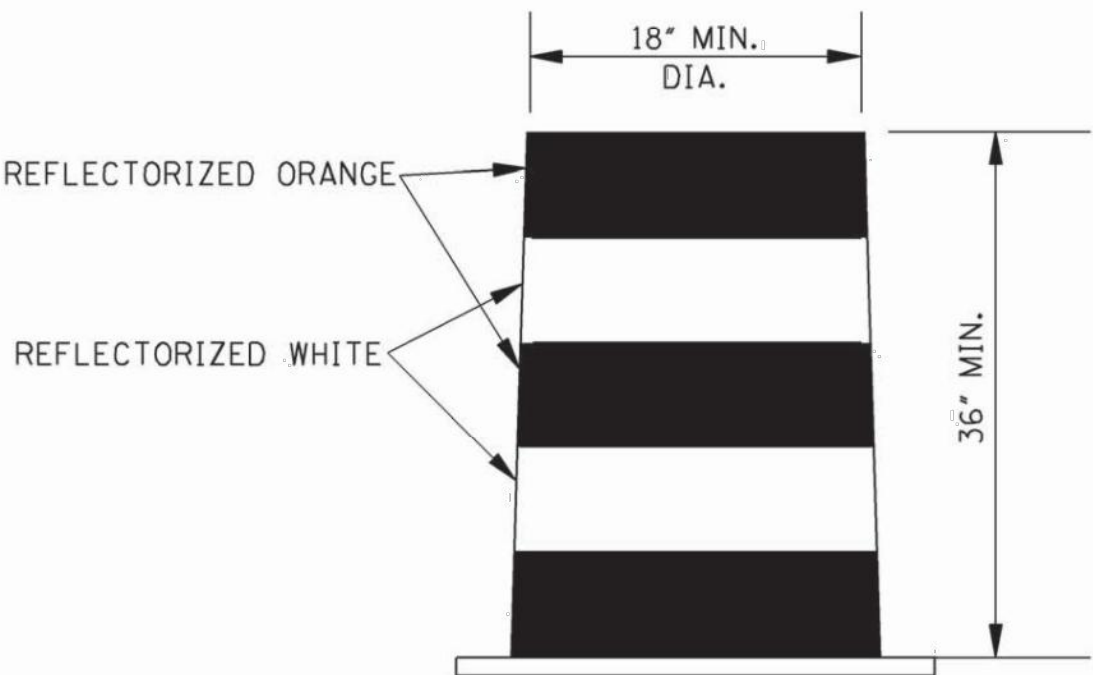
1. VERTICAL PANELS CONSIST OF AT LEAST ONE PANEL 8" TO 12" IN WIDTH AND A MINIMUM OF 24" IN HEIGHT.
2. THE DIAGONAL STRIPES SHALL SLOPE DOWNWARD IN THE DIRECTION THAT TRAFFIC IS TO PASS THE PANEL. THE PANELS SHALL BE MOUNTED WITH THE TOP A MINIMUM OF 36" ABOVE THE ROADWAY ON A SINGLE LIGHTMASS POST.
3. VERTICAL PANELS USED ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH-SPEED ROADWAYS SHALL HAVE A MINIMUM OF 270 in<sup>2</sup> OF RETROREFLECTIVE AREA FACING TRAFFIC.
4. FOR TWO-WAY TRAFFIC OPERATIONS, BACK-TO-BACK PANELS SHALL BE USED.

GENERAL NOTES:

1. MARKINGS ON ALL DEVICES SHOWN ON THIS SHEET SHALL BE HIGH INTENSITY REFLECTIVE SHEETING.
2. THE TRAFFIC CONTROL PLAN WILL LIST THE VARIOUS TRAFFIC CONTROL DEVICES REQUIRED FOR EACH PROJECT.

WING BARRICADES

1. WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAVEMENT TO GIVE THE SENSATION OF A NARROWING OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
2. WING BARRICADES SHOULD BE USED:
  - A. IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
  - B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.

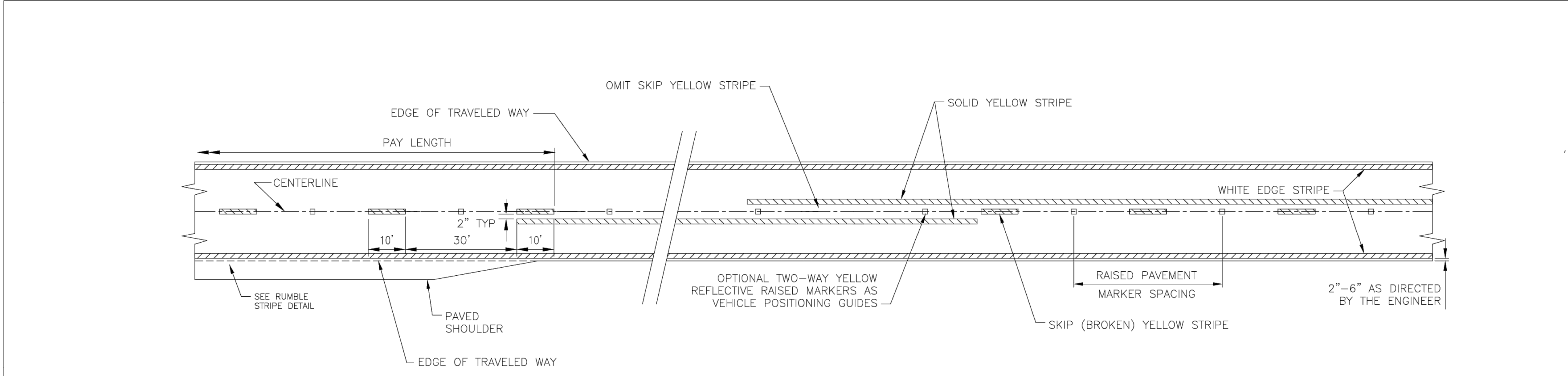


PLASTIC DRUM STRIPING DETAIL

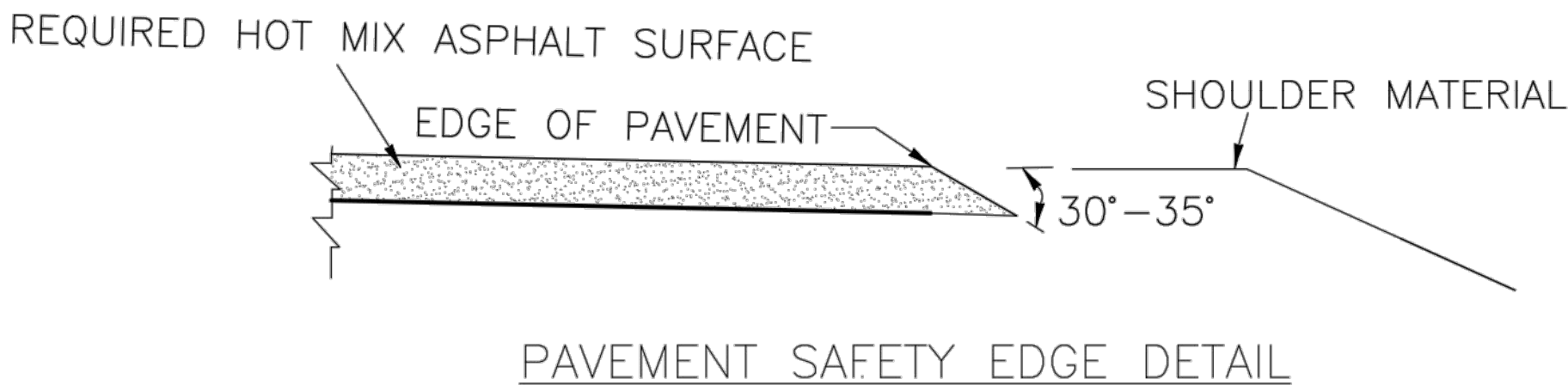
1. PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF DRUMS SHALL BE CONSISTENT WITH MARKING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON DRUMS SHALL BE ORANGE WITH FOUR (4) REFLECTORIZED, HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
2. DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
3. WHERE PRACTICAL PLASTIC DRUMS SHALL BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

|  |  |                             |  |                                                                                                                                           |  |
|--|--|-----------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  | BY                          |  | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>ROADWAY DESIGN DIVISION<br>STANDARD PLAN                                                      |  |
|  |  | REVISION                    |  | <b>HIGHWAY SIGN AND<br/>BARRICADE DETAILS<br/>FOR CONSTRUCTION<br/>PROJECTS</b>                                                           |  |
|  |  | DATE                        |  |                                                                                                                                           |  |
|  |  | ISSUE DATE: OCTOBER 1, 1998 |  | <br>WORKING NUMBER<br>TCP-10<br>SHEET NUMBER<br>6259 |  |





STRIPING DETAIL (TWO-WAY TRAFFIC)  
ASPHALT OR CONCRETE PAVEMENT  
(not to scale)



PAVEMENT SAFETY EDGE DETAIL

| PASSING SIGHT DISTANCE SCHEDULE                          |                                       |
|----------------------------------------------------------|---------------------------------------|
| 85TH-PERCENTILE OR POSTED OR STATUTORY SPEED LIMIT (MPH) | MINIMUM PASSING SIGHT DISTANCE (FEET) |
| 25                                                       | 450                                   |
| 30                                                       | 500                                   |
| 35                                                       | 550                                   |
| 40                                                       | 600                                   |
| 45                                                       | 700                                   |
| 50                                                       | 800                                   |
| 55                                                       | 900                                   |
| 60                                                       | 1000                                  |

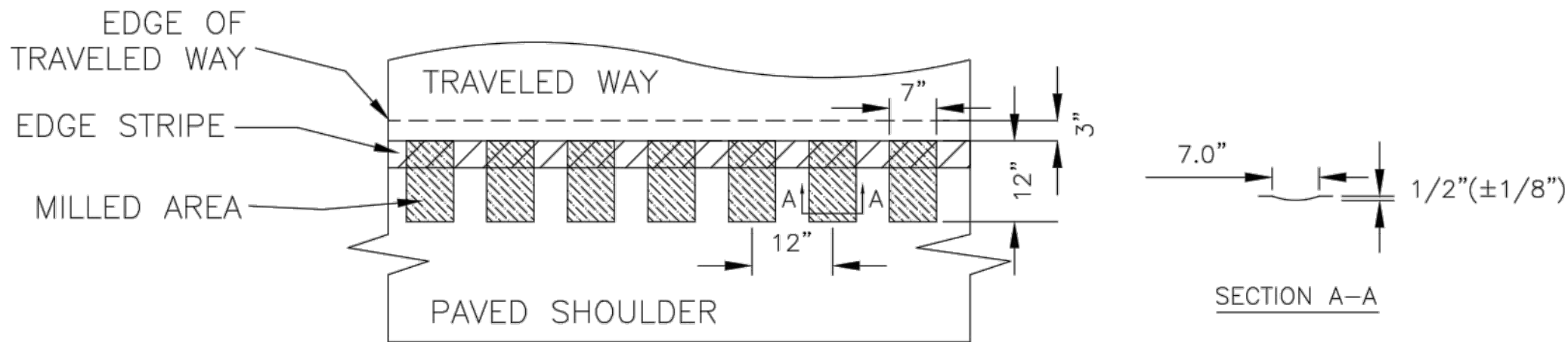
NOTES:

REFER TO STRIPING AND SIGNING SHEETS IN THE PLANS FOR STRIPE WIDTH AND REQUIRED STRIPING LOCATIONS IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

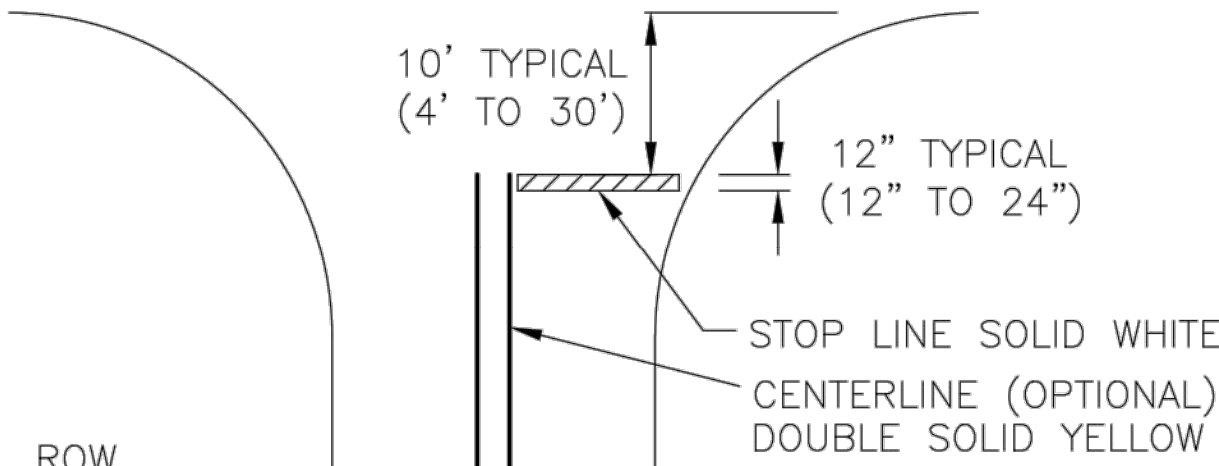
EDGE AND/OR RUMBLE STRIPE SHALL BE OMITTED AT ALL TURNOUTS AND INTERSECTIONS, AND CONTINUED THROUGH ALL RAMP AND DRIVEWAYS UNLESS SHOWN OTHERWISE ON THE PLANS. EDGE STRIPE SHALL BE THE SAME MATERIAL AS CENTERLINE STRIPE. CENTERLINE STRIPE ON CONCRETE PAVEMENT SHALL BE OFFSET 1" FROM PAVEMENT JOINT.

TYPICAL SPACING OF RAISED PAVEMENT MARKERS IS:

| AREA              | URBAN | RURAL |
|-------------------|-------|-------|
| TANGENT SECTIONS  | 40'   | 80'   |
| HORIZONTAL CURVES | 40'   | 40'   |



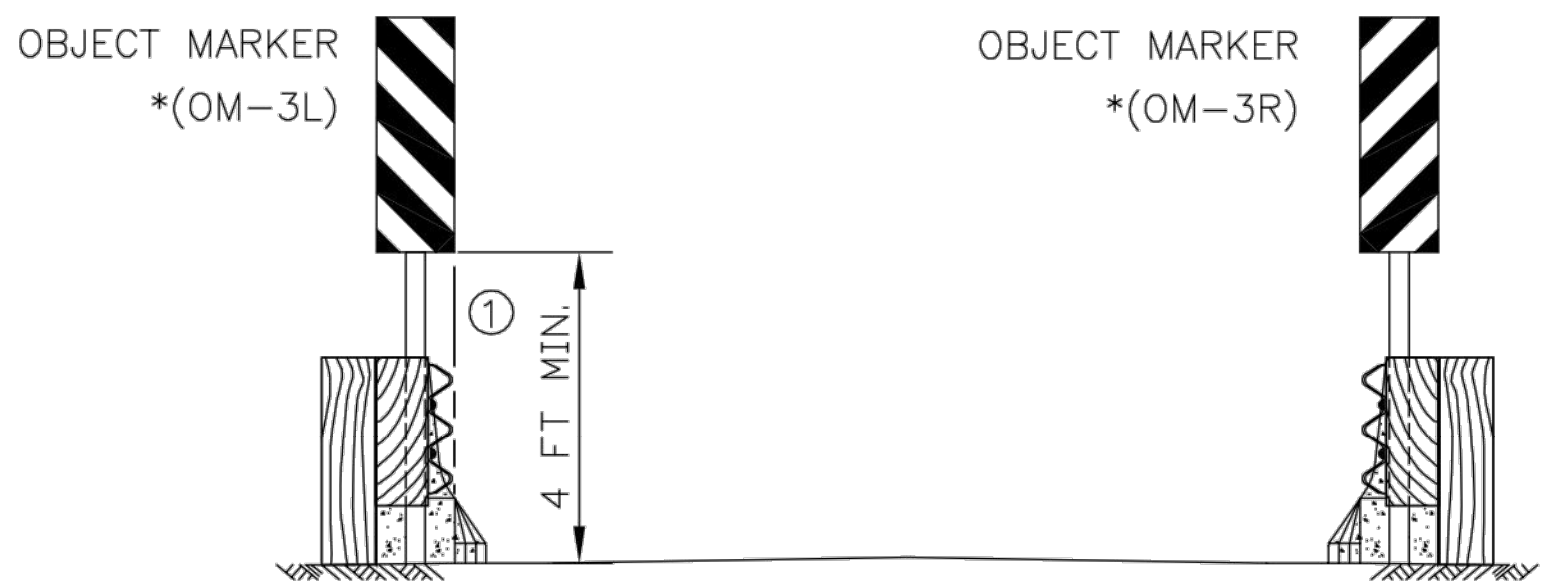
RUMBLE STRIPE DETAIL



SIDE ROAD INTERSECTION  
(showing stop line placement)

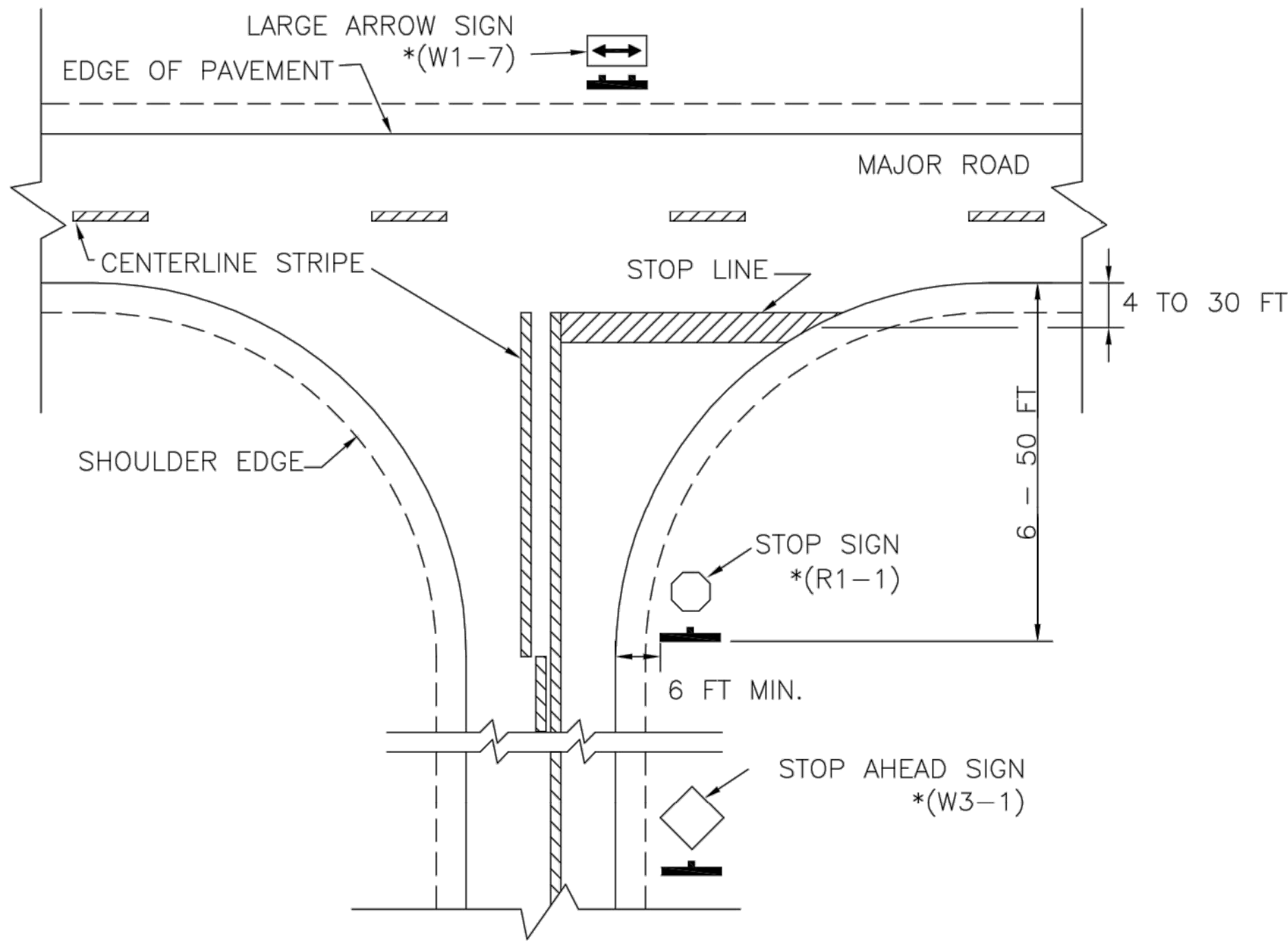
|          |                |                                    |          |                                                                                   |                 |
|----------|----------------|------------------------------------|----------|-----------------------------------------------------------------------------------|-----------------|
|          | HCW            | HCW                                | BT       | OFFICE OF STATE AID ROAD CONSTRUCTION<br>MISSISSIPPI DEPARTMENT OF TRANSPORTATION |                 |
|          | MODIFIED NOTES | ADD PAVEMENT SAFETY<br>EDGE DETAIL | REVISION | <b>PAVEMENT STRIPING<br/>AND MARKING</b>                                          |                 |
| 1/9/2014 |                |                                    |          |                                                                                   |                 |
| 1/4/2013 |                |                                    |          | DATE:                                                                             | DRAWING NUMBER: |
|          |                |                                    |          | BY: JBM                                                                           | SA-PSM-1        |
|          |                |                                    |          | DATE: MAY 20, 2005                                                                |                 |



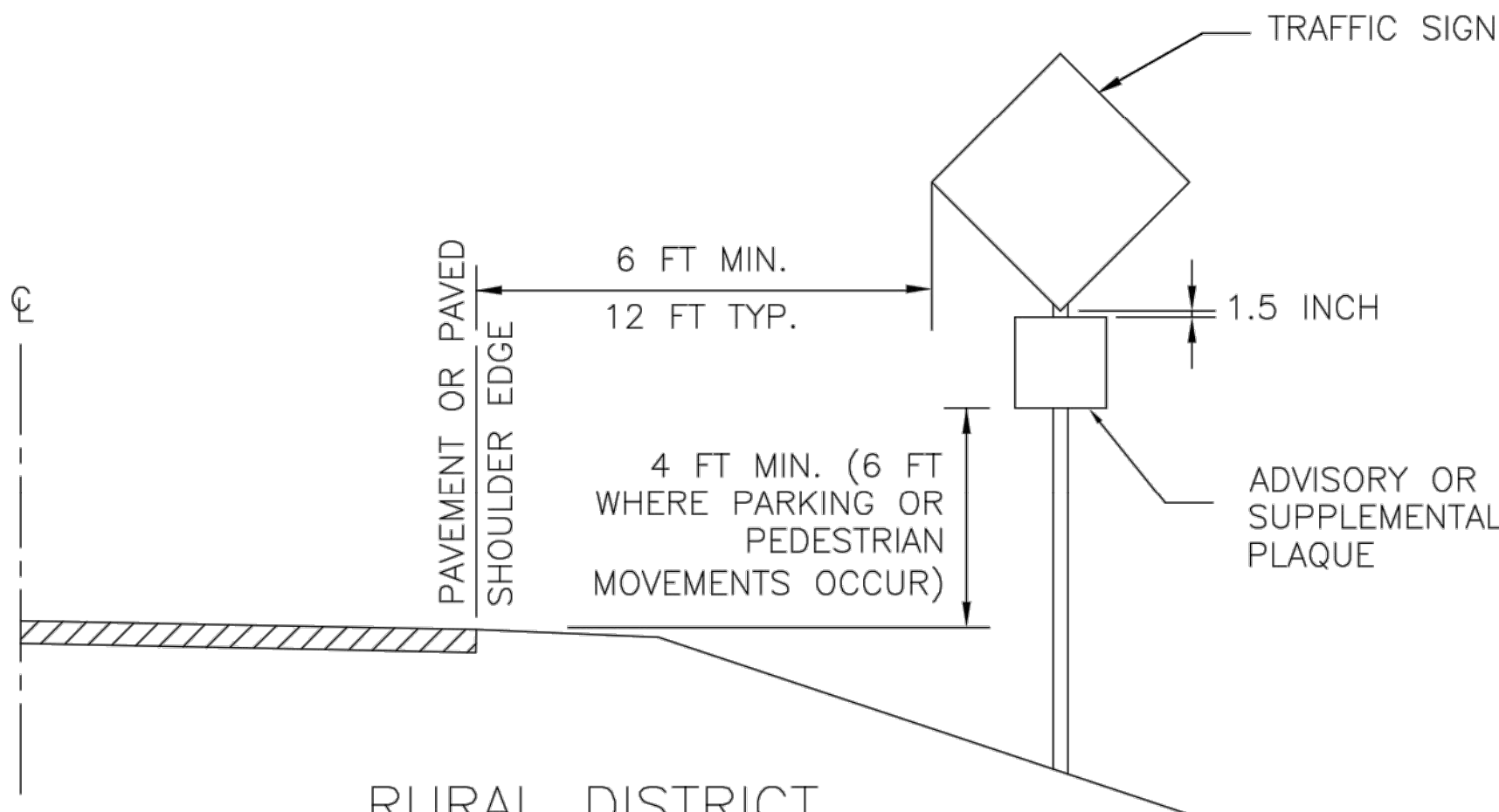


TYPE 3 OBJECT MARKER INSTALLATION  
AT BRIDGE ENDS

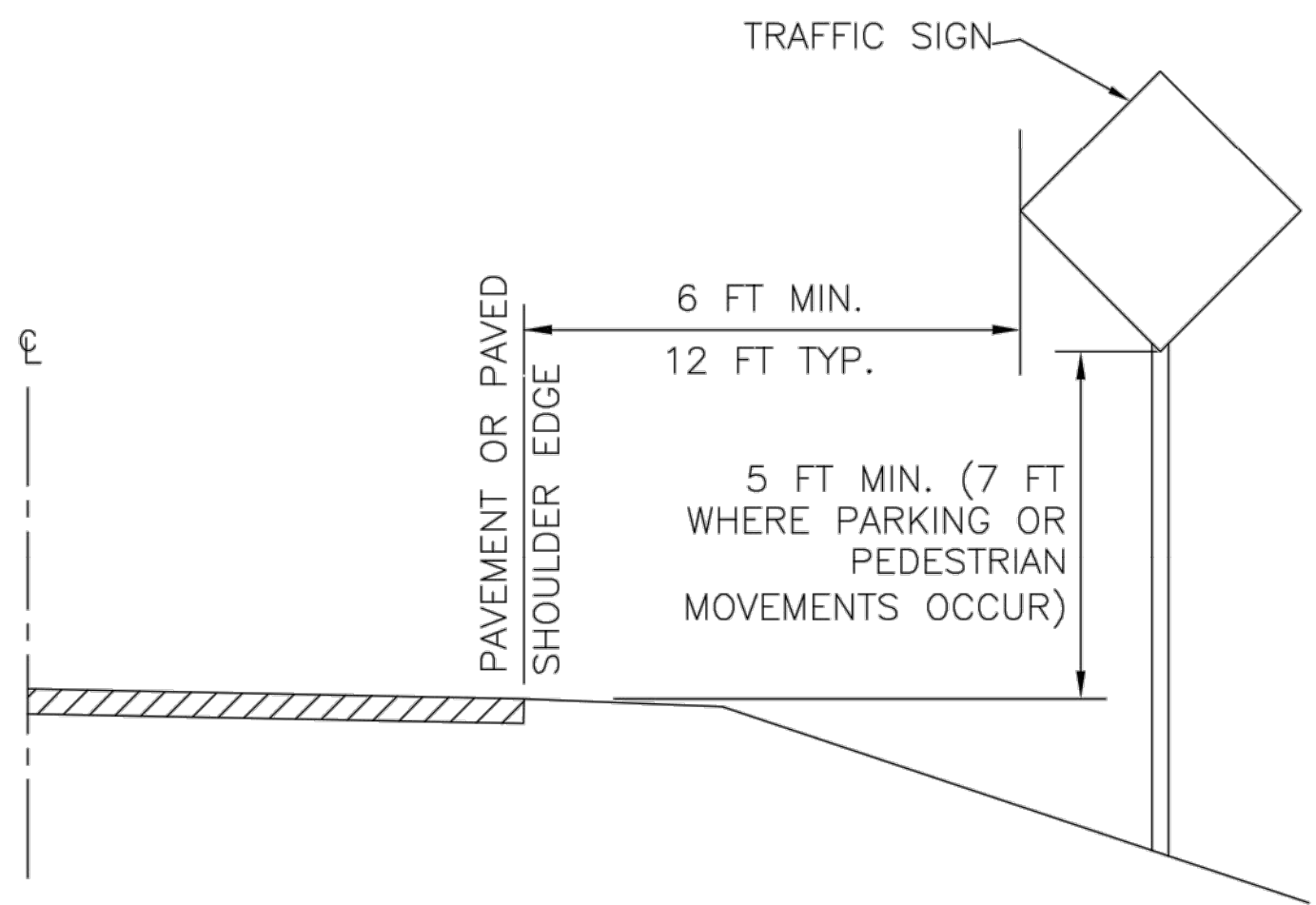
① INSIDE EDGE OF MARKER SHALL BE IN LINE WITH INNER  
EDGE OF THE OBSTRUCTION AND SHOULD BE AS NEAR  
THE OBSTRUCTION AS PRACTICAL.



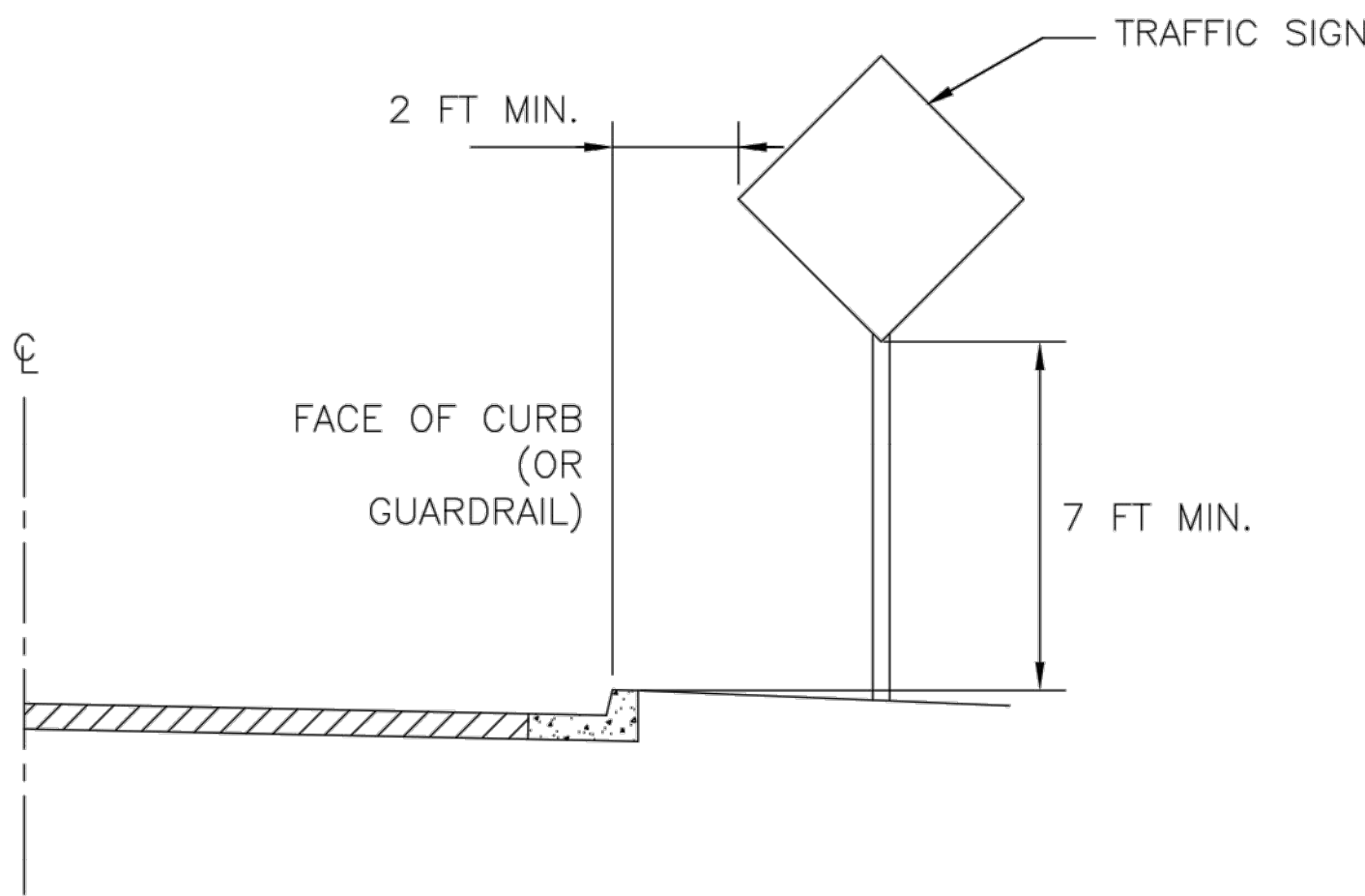
TYPICAL TEE INTERSECTION  
(PLAN VIEW)



RURAL DISTRICT  
(SHOULDER AND SIDE SLOPE SECTION)



RURAL DISTRICT  
(SHOULDER AND SIDE SLOPE SECTION)



BUSINESS OR RESIDENTIAL DISTRICT  
(CURB & GUTTER SECTION)

NOTES:  
SIGN SIZE SHALL BE THAT DESIGNATED IN THE "MANUAL ON  
UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) FOR CONVENTIONAL  
ROADS.

THE 6-FT LATERAL OFFSET SHOWN FOR RURAL ROADS MAY BE  
REDUCED TO NO LESS THAN 2 FT ON LOW-VOLUME ROADS (ADT  
<400) IF ROADSIDE FEATURES SUCH AS TERRAIN, SHRUBBERY,  
AND/OR TREES PREVENT NORMAL INSTALLATION.

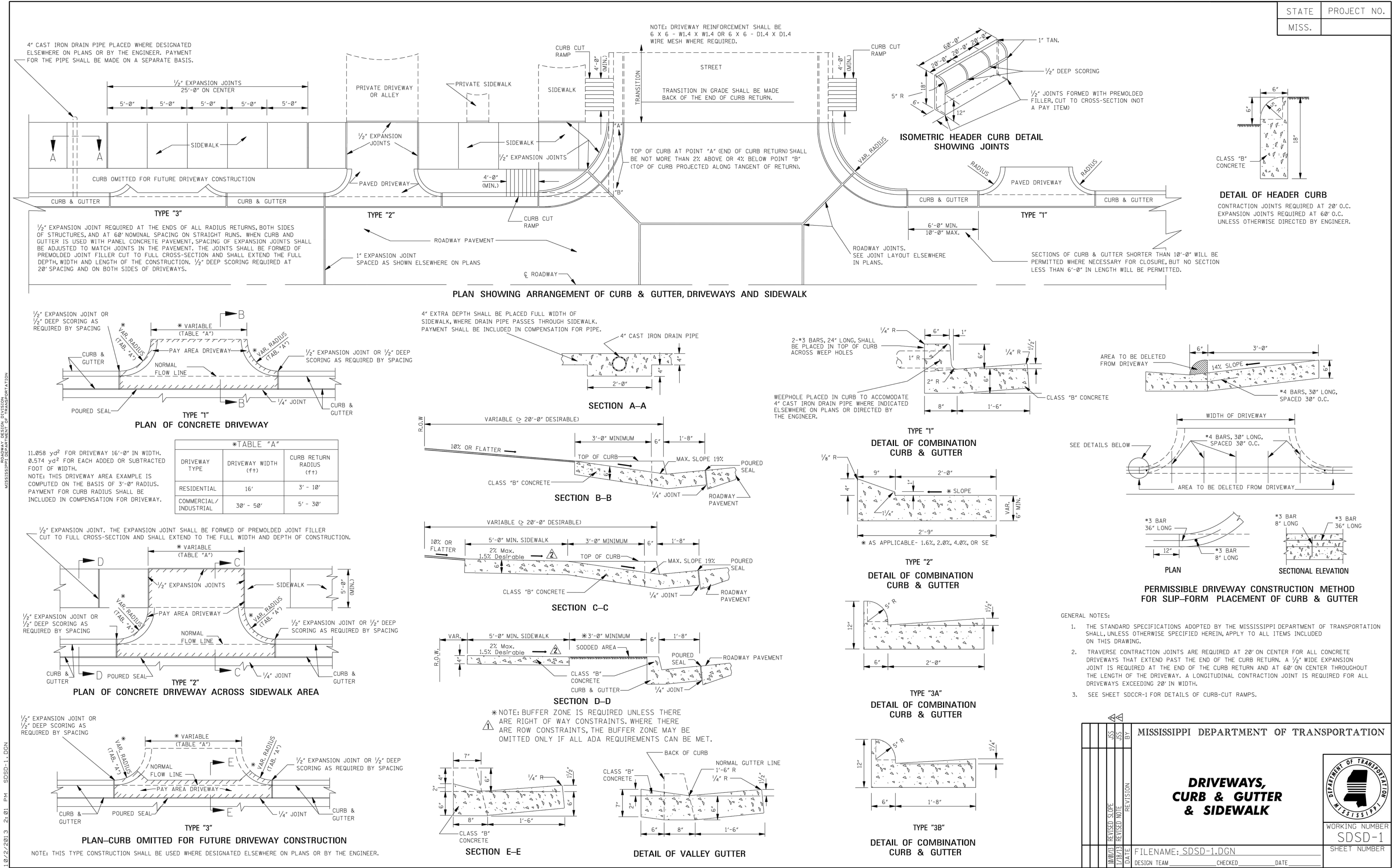
STOP SIGNS \*(R1-1) SHOULD BE LOCATED 6 FT TO 50 FT FROM  
THE INTERSECTING PAVEMENT EDGE AND AS CLOSE AS PRACTICAL  
TO THE INTERSECTION WHILE PROVIDING MAXIMUM VISIBILITY. IF  
STOP SIGN VISIBILITY IS RESTRICTED, A STOP AHEAD SIGN SHALL  
BE INSTALLED IN ADVANCE OF THE STOP SIGN. SEE MUTCD.

POSTS FOR TRAFFIC SIGNS SHALL BE EITHER 4"x4" S4S TREATED  
TIMBER, OR STEEL.

\*SIGN TYPE DESIGNATION REFERS TO THE MUTCD.

|  |  |          |                                                                                   |                 |  |
|--|--|----------|-----------------------------------------------------------------------------------|-----------------|--|
|  |  | BY:      | OFFICE OF STATE AID ROAD CONSTRUCTION<br>MISSISSIPPI DEPARTMENT OF TRANSPORTATION |                 |  |
|  |  | REVISION | TRAFFIC SIGN PLACEMENT                                                            |                 |  |
|  |  | DATE     |                                                                                   |                 |  |
|  |  | BY:      | DATE:                                                                             | DRAWING NUMBER: |  |
|  |  | JBM      | NOVEMBER 16, 2004                                                                 | SA-TSP-1        |  |







UTILITY OWNERS

MISSISSIPPI POWER COMPANY  
HATTIESBURG, MISSISSIPPI  
877-656-1836

COMCAST CABLE TV  
HATTIESBURG, MISSISSIPPI  
601-202-0378

WILMUT GAS CO.  
HATTIESBURG, MISSISSIPPI  
601-544-6001

CITY OF HATTIESBURG WATER & SEWER DEPARTMENT  
HATTIESBURG, MISSISSIPPI  
601-545-4530

AT&T  
HATTIESBURG, MISSISSIPPI  
877-544-2475

GENERAL NOTES

Existing Utilities Conflicting With Proposed Construction  
To Be Adjusted By Others In Accordance With Section  
- 2 - 8 Of The S.O.P.

Elevations Based On MEAN SEA LEVEL Datum.

NGCD ELEVATIONS BASED ON B.M. BV0657, ELEV. 221.83'.  
STATION IS AT THE UNIVERSITY OF SOUTHERN MISSISSIPPI AND IS  
2.4 MILES WEST OF THE FORREST COUNTY COURTHOUSE IN  
HATTIESBURG, MISSISSIPPI. STATION IS 113.2 FEET WEST OF BOOTH  
IN A SQUARE FORMED BY SIDEWALKS SOUTH OF THE  
ADMINISTRATION BUILDING. STATION IS 150.6 FEET SOUTH OF  
BOTTOM STEP OF ADMINISTRATION BUILDING, 63.0 FEET NORTH OF  
CENTER OF SOUTHERN DRIVE, 200.8 FEET NORTH OF A FLAGPOLE,  
114.5 FEET EAST OF WEST MEMORIAL DRIVE CENTERLINE.

Drainage Areas Taken From Survey provided  
by USGS Topographical Maps.  
Disturbed Area = 0.80 Acres

HYDRAULIC DESIGN

< 25 Acres - Rational Method  
> 25 Acres - "Flood Characteristics Of Mississippi Streams" 1991.

DESIGN DATA

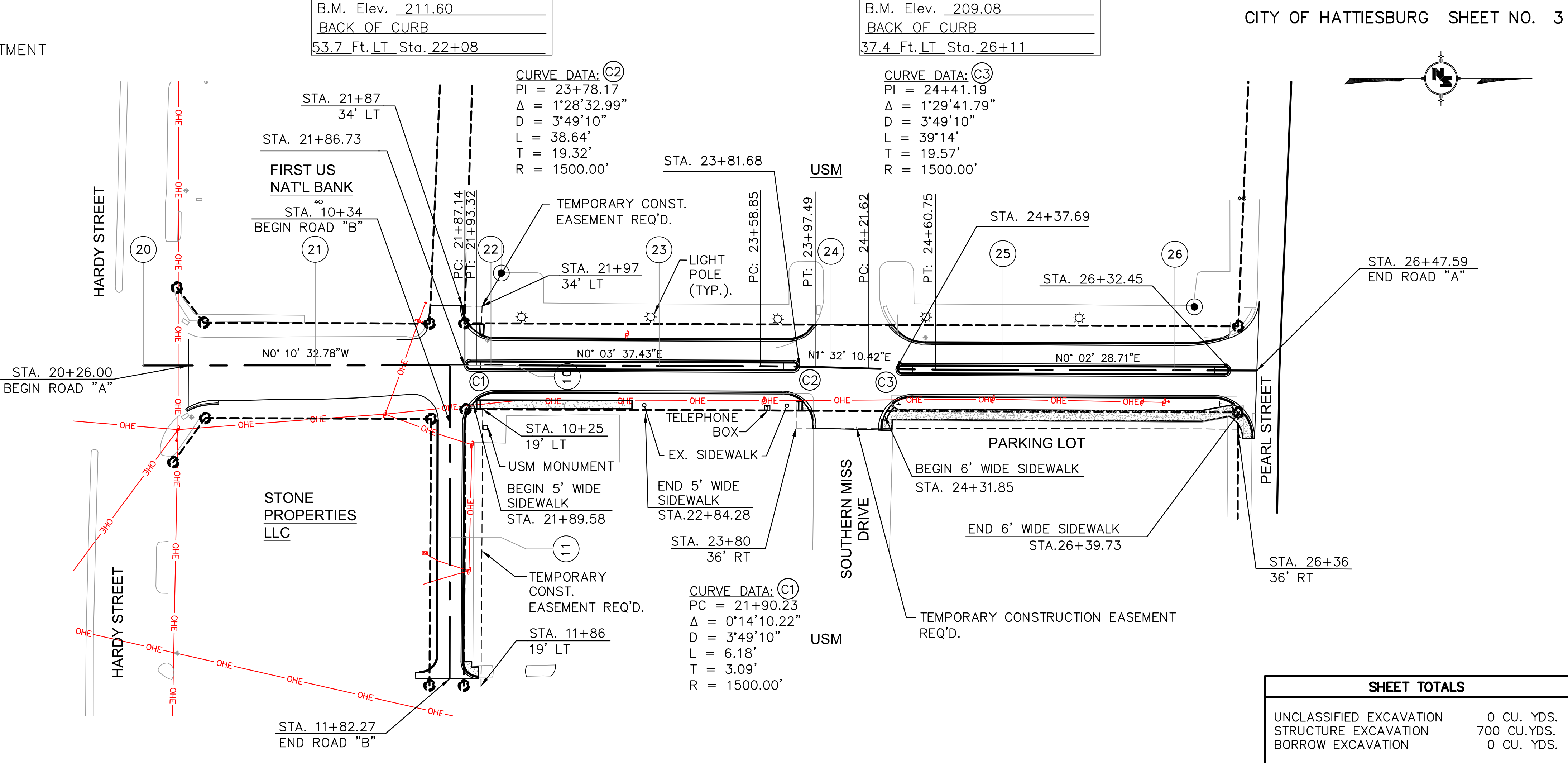
Current ADT (2017) = 1,060  
Design Speed = 20 mph

SHRINKAGE FACTORS

Granular Material (LVM) = 1.5  
Excavation (FM) = 1.4

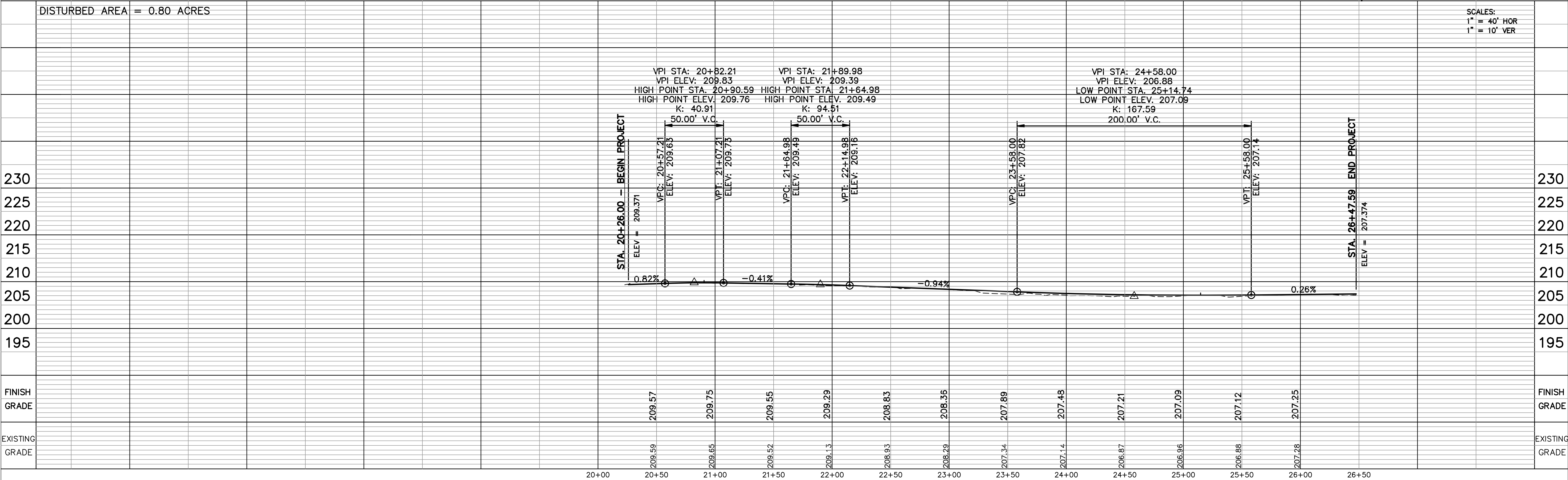
B.M. Elev. 211.60  
BACK OF CURB  
53.7 Ft. LT Sta. 22+08

B.M. Elev. 209.08  
BACK OF CURB  
37.4 Ft. LT Sta. 26+11

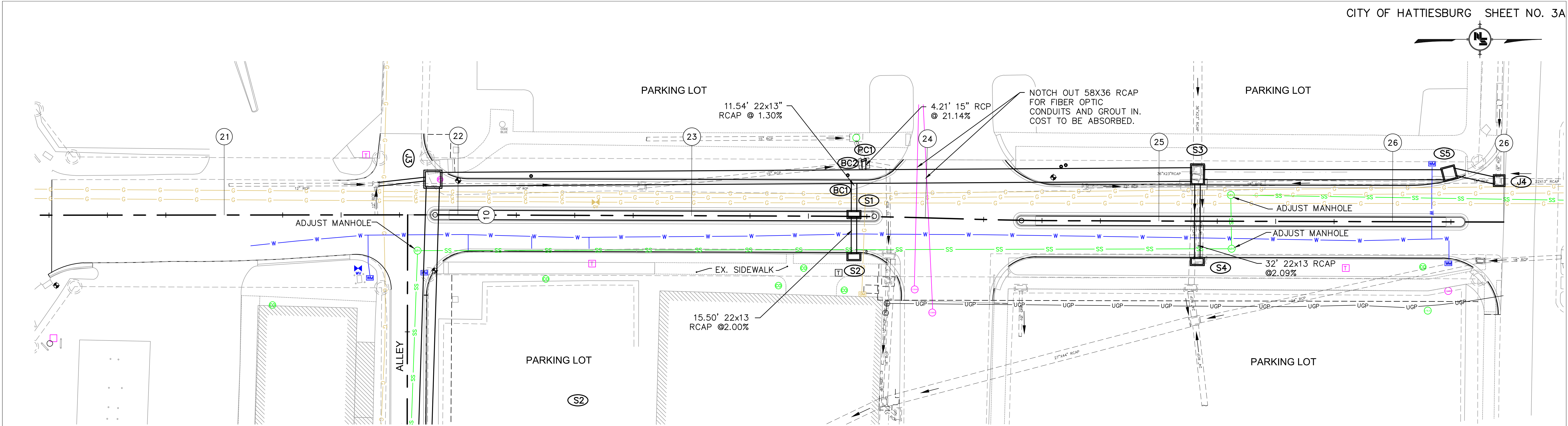


SHEET TOTALS

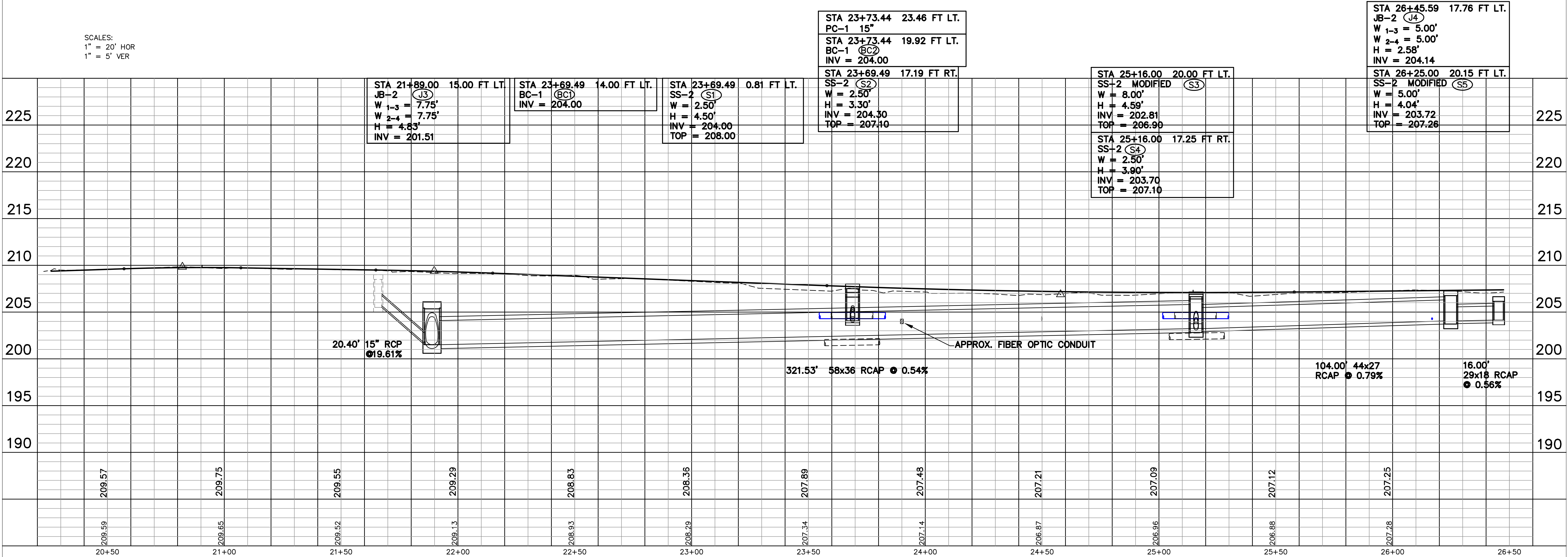
UNCLASSIFIED EXCAVATION 0 CU. YDS.  
STRUCTURE EXCAVATION 700 CU. YDS.  
BORROW EXCAVATION 0 CU. YDS.



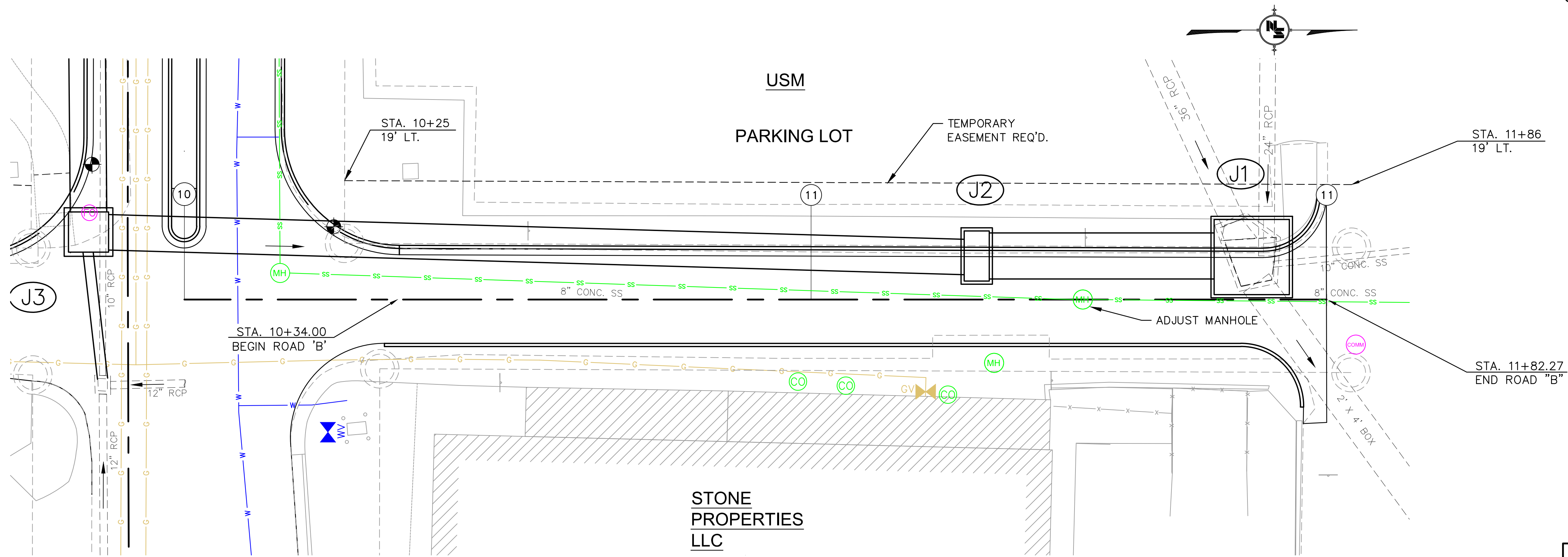




SCALES:  
1" = 20' HOR  
1" = 5' VER





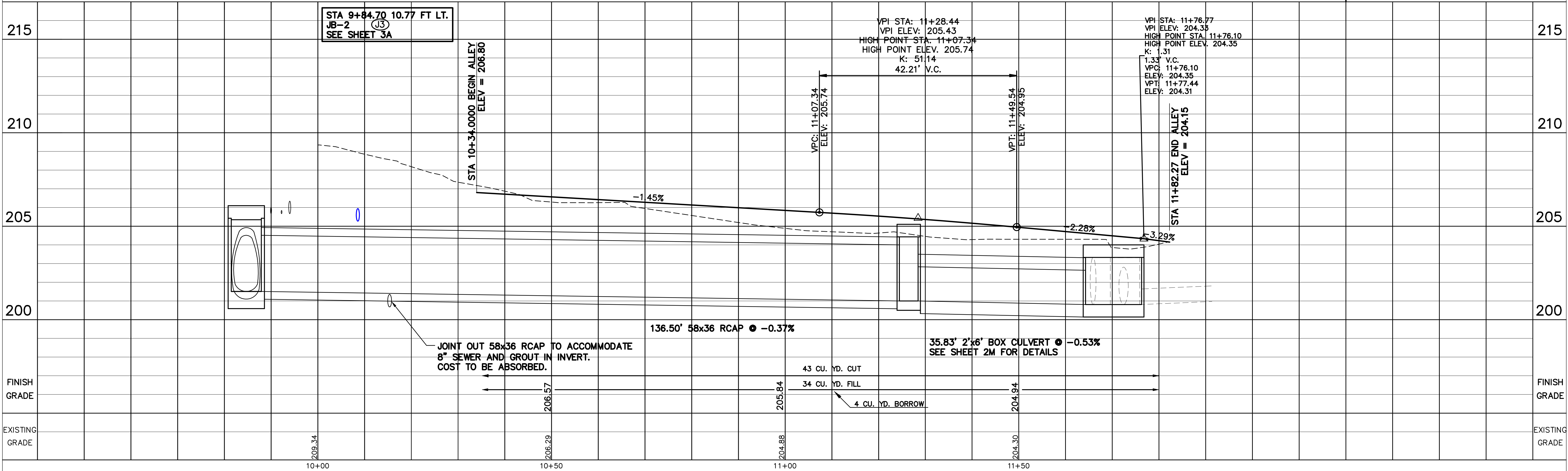


SCALES:  
1" = 10' HOR  
1" = 2.5' VER

STA 11+26.44 6.95 FT LT.  
JB-2 (J2)  
W<sub>1-3</sub> = 9.42'  
W<sub>2-4</sub> = 5.00'  
H = 4.58'  
INV = 201.00

STA 11+70.34 6.78 FT LT.  
JB-2 MODIFIED (J1)  
W<sub>1-3</sub> = 13.00'  
W<sub>2-4</sub> = 13.00'  
H = 3.47'  
INV = 200.81  
SEE SHEET 2L FOR DETAILS

| SHEET TOTALS            |              |
|-------------------------|--------------|
| UNCLASSIFIED EXCAVATION | 43 CU. YDS.  |
| STRUCTURE EXCAVATION    | 274 CU. YDS. |
| BORROW EXCAVATION       | 4 CU. YDS.   |
| PROJECT TOTALS          |              |
| UNCLASSIFIED EXCAVATION | 43 CU. YDS.  |
| STRUCTURE EXCAVATION    | 974 CU. YDS. |
| BORROW EXCAVATION       | 4 CU. YDS.   |





# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-565**

**File ID:** 2018-565

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Andrew Ellard

**File Created:** 06/21/2018

**Brief Title:** CDBG Program Claim

**Final Action:**

**Minute Book Number:** MB2018-172

**Title:**

Approve and authorize issuance of manual check for CDBG Program Claim per attached memorandum. {Entitlement CDBG}

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VII.-7

**Sponsors:**

**Enactment Date:**

**Attachments:** CDBG Program Claim July 3, 2018.pdf

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Clarence Williams

**Effective Date:**

## History of Legislative File

| Ver-<br>sion: | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council | 07/03/2018 |         |          |           |                 |         |

## Text of Legislative File 2018-565

### Title

Approve and authorize issuance of manual check for CDBG Program Claim per attached memorandum. {Entitlement CDBG}

### Summary

CDBG Program Claim

### Budget Information

### Expenditure Type

**Purchasing Item**

**Publication Information**



## MEMORANDUM

**TO:** City of Hattiesburg Council Members

**FROM:** Andrew Ellard, Director  
Department of Urban Development

**SUBJECT:** Authorize issuance of manual checks for CDBG Program Claim.

**DATE:** July 3, 2018

|                          |                            |
|--------------------------|----------------------------|
| <b>Recipient:</b>        | Hollimon Construction      |
| Activity:                | Substantial Rehabilitation |
| Program:                 | CDBG                       |
| Project Site:            | 107 Montague Drive         |
| <b>Amount Requested:</b> | <b>\$15,000.00</b>         |
| Purpose of Request:      | Payment Request #2         |
| Work Provided by:        | Hollimon Construction      |

# Hollimon Construction

Curtis Hollimon

145 Hinton Drive

Hattiesburg, Ms 39401

601.270.3164

Ms. Mary Craft

107 Montague Drive

Hattiesburg, Ms 39401

- Gut the entire interior of house
- Electric rough in
- Install all windows

Material & Labor: \$15,000

Curtis Hollimon

6-21-18

Dr

A handwritten signature in green ink, appearing to be 'R. H. J.', followed by a long horizontal line.



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-575**

**File ID:** 2018-575

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Deborah Bourne

**File Created:** 06/22/2018

**Brief Title:** Approve the sale of grave spaces, per attached Receipts, Memo's and Deeds.

**Final Action:**

**Minute Book Number:** MB2018-172

**Title:**

Approve the sale of grave spaces, per attached Receipts, Memo's and Deeds.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VII.-8

**Sponsors:**

**Enactment Date:**

**Attachments:** Receipts (07-03-18), Memo's (07-03-18), Deeds (07-03-18)

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:**

**Effective Date:**

### History of Legislative File

| Ver-<br>sion: | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council | 07/03/2018 |         |          |           |                 |         |

### Text of Legislative File 2018-575

#### Title

Approve the sale of grave spaces, per attached Receipts, Memo's and Deeds.

#### Summary

Approve the sale of grave spaces, per attached Receipts, Memo's and Deeds.

#### Budget Information

#### Expenditure Type

**Purchasing Item**

**Publication Information**

**CITY OF HATTIESBURG  
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 06-11 20 18

SOLD TO:

Mr.. Mrs. Miss

ADDRESS

desires to purchase the grave space described below, subject to Cemetery regulations.

N 1/2 SW 1/4 Lot No. 12 Section No. 34 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

Cash

**CITY OF HATTIESBURG, MISSISSIPPI**

By [Signature]  
Supt. of City Cemeteries

**CITY OF HATTIESBURG  
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 06-11 20 18

SOLD TO:

Mr.. Mrs. Miss

ADDRESS

desires to purchase the grave space described below, subject to Cemetery regulations.

Sub #43 3 Section No. 3 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 45.00

Price Received \$ 45.00

Cash

**CITY OF HATTIESBURG, MISSISSIPPI**

By [Signature]  
Supt. of City Cemeteries

**CITY OF HATTIESBURG  
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 06-19 20 18

SOLD TO:

Mr.. Mrs. Miss

ADDRESS

desires to purchase the grave space described below, subject to Cemetery regulations.

N 1/2 SW 1/4 Lot No. 75 Section No. 24 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

Cash

**CITY OF HATTIESBURG, MISSISSIPPI**

By [Signature]  
Supt. of City Cemeteries

**CITY OF HATTIESBURG  
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 06-20 2018

SOLD TO:

Mr. Mrs. Miss Eugene E. Barnes

ADDRESS 89 Deer Run Hattiesburg, MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations.

N 1/2 NE 1/4 Lot No. 31 Section No. 36 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

cash

**CITY OF HATTIESBURG, MISSISSIPPI**

By James Gibson  
Supt. of City Cemeteries

**CITY OF HATTIESBURG  
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 06-21 2018

SOLD TO:

Mr. Mrs. Miss Marvin Family

ADDRESS 806 Klondike St Hattiesburg, MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations.

N 1/2 SE 1/4 Lot No. 76 Section No. 36 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

ck# 8643

**CITY OF HATTIESBURG, MISSISSIPPI**

By James Gibson  
Supt. of City Cemeteries

**CITY OF HATTIESBURG  
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 06-21 2018

SOLD TO:

Mr. Mrs. Miss Anzetta Hayes

ADDRESS 5752 Hwy 49 S Hattiesburg, MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations.

E 1/2 NE 1/4 Lot No. 138 Section No. 1 in South Hill Cemetery

Number of grave spaces 1 Price per grave space \$ 150.00

Price Received \$ 150.00

ck# 8693

**CITY OF HATTIESBURG, MISSISSIPPI**

By James Gibson  
Supt. of City Cemeteries

**To: CITY COUNCIL**

**From: Deborah Bourne, Assistant Division Manager of Cemeteries**

**Date: June 22, 2018**

**The following represents the grave spaces sold on June 22, 2018**

**Ed-die Graham Lott**

**(1) Space \$ 175.00**

**North Half (N ½) of the Southwest Quarter (SW ¼)**

**Lot 12, Section 34, Highland Cemetery**

**Bobby Ray Thompson**

**(1) Space \$ 45.00**

**Baby Space# 43**

**Lot 3, Section 3, Highland Cemetery**

**Betty McCallister**

**(1) Space \$ 175.00**

**North Half (N ½) of the Southwest Quarter (SW ¼)**

**Lot 75, Section 24, Highland Cemetery**

**Eugene F. Barnes**

**(1) Space \$ 175.00**

**North Half (N ½) of the Northeast Quarter (NE ¼)**

**Lot 31, Section 36, Highland Cemetery**

**Marvin Fairley**

(1) Space    \$ 175.00

**North Half (N ½) of the Southeast Quarter (SE ¼)**

**Lot 76, Section 36 Highland Cemetery**

**Anzetta Hayes**

(1) Space    \$ 150.00

**East Half (E ½) of the Northeast Quarter (NE ¼)**

**Lot 138, Section 1, South Hill**



STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR  
CITY OF HATTIESBURG  
HATTIESBURG, MS

**DEED TO CEMETERY LOT  
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Ed-die Graham Lott, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

North Half (N½) of the Southwest Quarter (SW¼)

Lot 12

Section 34

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 3rd day of July, 2018.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR

( S E A L )

STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 3rd day of July, 2018.

My Commission Expires:

\_\_\_\_\_  
NOTARY PUBLIC

# DEED TO CEMETERY LOT HIGHLAND CEMETERY

For and in consideration of the sum of FORTY-FIVE AND NO/100 Dollars (\$45.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Bobby Ray Thompson subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

## Baby Space #43

Lot Number: 3 Section Number: 3  
according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing  
One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

**GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.**

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 3rd day of July, 2018.

**ATTEST:**

**CITY OF HATTIESBURG, MISSISSIPPI**

**DEPUTY CITY CLERK**

**MAYOR**

(SEAL)

**STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR**

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 3rd day of July, 2018.

**My Commission Expires:**

**NOTARY PUBLIC**

STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR  
CITY OF HATTIESBURG  
HATTIESBURG, MS

**DEED TO CEMETERY LOT  
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Betty McCallister, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

North Half (N½) of the Southwest Quarter (SW¼)

Lot 75

Section 24

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 3rd day of July, 2018.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR

( S E A L )

STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 3rd day of July, 2018.

My Commission Expires:

\_\_\_\_\_  
NOTARY PUBLIC

STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR  
CITY OF HATTIESBURG  
HATTIESBURG, MS

**DEED TO CEMETERY LOT  
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Eugene F. Barnes, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

North Half (N½) of the Northeast Quarter (NE¼)

Lot 31

Section 36

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 3rd day of July, 2018.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR

( S E A L )

STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 3rd day of July, 2018.

My Commission Expires:

\_\_\_\_\_  
NOTARY PUBLIC

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STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR  
CITY OF HATTIESBURG  
HATTIESBURG, MS

**DEED TO CEMETERY LOT  
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Marvin Fairley, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

North Half (N½) of the Southeast Quarter (SE¼)

Lot 76

Section 36

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 3rd day of July, 2018.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

\_\_\_\_\_  
CITY CLERK

\_\_\_\_\_  
MAYOR

( S E A L )

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STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 3rd day of July, 2018.

My Commission Expires:

\_\_\_\_\_  
NOTARY PUBLIC

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STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR  
CITY OF HATTIESBURG  
HATTIESBURG, MS

**DEED TO CEMETERY LOT  
SOUTH HILL CEMETERY**

For and in consideration of the sum of ONE HUNDRED FIFTY AND NO/100 Dollars (\$150.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Anzetta Hayes, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

East Half (E½) of the Northeast Quarter (NE¼)

Lot Number: 138

Section Number: 1

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as South Hill Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 3rd day of July, 2018.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

\_\_\_\_\_  
CITY CLERK  
( S E A L )

\_\_\_\_\_  
MAYOR

STATE OF MISSISSIPPI  
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and Deputy City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 3rd day of July, 2018.

My Commission Expires:

\_\_\_\_\_  
NOTARY PUBLIC



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-564**

**File ID:** 2018-564

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:**

**File Created:** 06/20/2018

**Brief Title:** Claims docket for the period ending 6/30/2018.

**Final Action:**

**Minute Book Number:** MB2018-172

**Title:**

Approve claims docket for the period ending June 30, 2018

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:** VII.-9

**Sponsors:**

**Enactment Date:**

**Attachments:** DOCKET 18.06-30

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:**

**Effective Date:**

## History of Legislative File

| Ver-<br>sion: | Acting Body: | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council | 07/03/2018 |         |          |           |                 |         |

## Text of Legislative File 2018-564

### Title

Approve claims docket for the period ending June 30, 2018

### Summary

Claims docket for the period June 30, 2018.

### Budget Information

### Expenditure Type

### Purchasing Item

## **Publication Information**



## CITY OF HATTIESBURG

## DOCKET OF CLAIMS

Date - 06/27/18

PERIOD ENDING JUNE 30, 2018

| Vendor                              | Invoice<br>Number | Purchase<br>Order | Claims<br>Number | Item<br>Description                     | Check<br>Date | Check<br>No. | Check<br>Amount |
|-------------------------------------|-------------------|-------------------|------------------|-----------------------------------------|---------------|--------------|-----------------|
| GENERAL FUND                        |                   |                   |                  |                                         |               |              |                 |
| 00001 A A A AMBULANCE SERVICE       | 18-21669          | LAM               | 00180632         | 17006271 SERV 4/10/18 LAMB PRISONER     | 06/30/18      | 264740       | 302.58-         |
| 00001 A A A AMBULANCE SERVICE       | 18-19916          | MAY               | 00180632         | 17006272 SERV 4/12/18 MAYES PRISONER    | 06/30/18      | 264740       | 303.09-         |
| 00001 A A A AMBULANCE SERVICE       | 17-49845          | WRI               | 00180632         | 17006273 SERV 8/22/17 WRIGHT PRISONER   | 06/30/18      | 264740       | 302.58-         |
| -----                               |                   |                   |                  |                                         |               |              |                 |
| A A A AMBULANCE SERVICE             |                   |                   |                  |                                         |               |              |                 |
| Sum                                 |                   |                   |                  |                                         |               |              | 908.25-         |
| 00001 AAMCO TRANS/AUTOMOTIVE S      | I140162           |                   | 00180385         | 17006143 REPRS U#15963 PUBLIC WORKS     | 06/30/18      | 264741       | 723.88-         |
| 00001 AAMCO TRANS/AUTOMOTIVE S      | I140163           |                   | 00180391         | 17006300 A/C REPR U#18603 TRAFFIC       | 06/30/18      | 264741       | 139.32-         |
| 00001 AAMCO TRANS/AUTOMOTIVE S      | 106109            |                   | 00178609         | 17006409 REPRS U#19708 POLICE           | 06/30/18      | 264741       | 2,109.95-       |
| 00001 AAMCO TRANS/AUTOMOTIVE S      | 106228            |                   | 00179989         | 17006410 A/C REPR U#17836 POLICE        | 06/30/18      | 264741       | 906.56-         |
| -----                               |                   |                   |                  |                                         |               |              |                 |
| AAMCO TRANS/AUTOMOTIVE S            |                   |                   |                  |                                         |               |              |                 |
| Sum                                 |                   |                   |                  |                                         |               |              | 3,879.71-       |
| 00001 AIRGAS USA LLC (NORDAN S      | 9953654774        | F                 | 00180534         | 17006230 MED OXYGEN BOTTLE RENT         | 06/30/18      | 264743       | 293.82-         |
| 00001 AIRGAS USA LLC (NORDAN S      | 9953654774        | P                 | 00180605         | 17006257 CYLINDER RENT PUBLIC WORKS     | 06/30/18      | 264743       | 761.08-         |
| -----                               |                   |                   |                  |                                         |               |              |                 |
| AIRGAS USA LLC (NORDAN S            |                   |                   |                  |                                         |               |              |                 |
| Sum                                 |                   |                   |                  |                                         |               |              | 1,054.90-       |
| 00001 ALBRITTON, DERINDA            | PO#180541         |                   | 00180541         | 17006178 DISPATCH MANAGER TRAINING      | 06/30/18      | 264744       | 2,000.00-       |
| -----                               |                   |                   |                  |                                         |               |              |                 |
| ALBRITTON, DERINDA                  |                   |                   |                  |                                         |               |              |                 |
| Sum                                 |                   |                   |                  |                                         |               |              | 2,000.00-       |
| 00001 ALLBRITTON CHAIN SAW & L      | 57352             |                   | 00180460         | 17006164 CHAIN FOR POLE SAW CEMETERY    | 06/30/18      | 264745       | 181.60-         |
| 00001 ALLBRITTON CHAIN SAW & L      | 57609             |                   | 00180738         | 17006397 REPRS U#20059 CEMETERY         | 06/30/18      | 264745       | 1,291.60-       |
| -----                               |                   |                   |                  |                                         |               |              |                 |
| ALLBRITTON CHAIN SAW & L            |                   |                   |                  |                                         |               |              |                 |
| Sum                                 |                   |                   |                  |                                         |               |              | 1,473.20-       |
| 00001 ANOINTED HANDS SERVICES, 5620 |                   |                   | 00180553         | 17006312 CLEAN CARPET T DEPOT ROOMS     | 06/30/18      | 264746       | 600.00-         |
| -----                               |                   |                   |                  |                                         |               |              |                 |
| ANOINTED HANDS SERVICES,            |                   |                   |                  |                                         |               |              |                 |
| Sum                                 |                   |                   |                  |                                         |               |              | 600.00-         |
| 00001 ANTHONY BODIN ENTERPRISE 288  |                   |                   | 00180198         | 17006194 CLEAN CARPETS CITY HALL        | 06/30/18      | 264747       | 3,890.25-       |
| -----                               |                   |                   |                  |                                         |               |              |                 |
| ANTHONY BODIN ENTERPRISE            |                   |                   |                  |                                         |               |              |                 |
| Sum                                 |                   |                   |                  |                                         |               |              | 3,890.25-       |
| 00001 AREA DEVELOPMENT PARTNER 4338 |                   |                   | 00180525         | 17006176 2018 HUBFEST STAGE SPONSORSHIP | 06/30/18      | 264749       | 2,500.00-       |
| -----                               |                   |                   |                  |                                         |               |              |                 |
| AREA DEVELOPMENT PARTNER            |                   |                   |                  |                                         |               |              |                 |
| Sum                                 |                   |                   |                  |                                         |               |              | 2,500.00-       |
| 00001 ARNOLD, JOURDAN               | TRAVEL REIMB      |                   | 00180492         | 17006179 EXPNS ROPE RESCUE TECH TRNG    | 06/30/18      | 264751       | 114.31-         |
| -----                               |                   |                   |                  |                                         |               |              |                 |
| ARNOLD, JOURDAN                     |                   |                   |                  |                                         |               |              |                 |
| Sum                                 |                   |                   |                  |                                         |               |              | 114.31-         |
| 00001 AT&T                          | 601M26940440      | 00020188          | 17006154         | SERVS 6/8-7/7/18 POLICE                 | 06/30/18      | 264752       | 76.00-          |
| 00001 AT&T                          | 601545491010      | 02018646          | 17006168         | SERV 6/8-7/7/18 DISPATCH                | 06/30/18      | 264753       | 170.37-         |

|                                        |              |          |          |                               |          |        |            |
|----------------------------------------|--------------|----------|----------|-------------------------------|----------|--------|------------|
| 00001 AT&T                             | 601M26684200 | 00180555 | 17006216 | INTERACT SUPPORT              | 06/30/18 | 264754 | 6,790.00-  |
| 00001 AT&T                             | 601M26491400 | 00180555 | 17006217 | INTERACT SUPPORT              | 06/30/18 | 264755 | 47.00-     |
| 00001 AT&T                             | 056314932900 | 02018656 | 17006336 | LONG DIST 6-7/15/18 DISPATCH  | 06/30/18 | 264756 | 41.88-     |
| -----                                  |              |          |          |                               |          |        |            |
| AT&T                                   |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 AT&T CAPITAL SERVICES            | 3039015      | 00180487 | 17006175 | INTERACT PUB SAFETY SOFTWARE  | 06/30/18 | 264757 | 7,125.25-  |
|                                        |              |          |          |                               |          |        | 12,556.56- |
| -----                                  |              |          |          |                               |          |        |            |
| AT&T CAPITAL SERVICES                  |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 AT&T MOBILITY                    | 287273578351 | 00180481 | 17006123 | WIRELESS SERV 5/18 VARI DEPTS | 06/30/18 | 264758 | 12,556.56- |
| 00001 AT&T MOBILITY                    | 287273861504 | 00180474 | 17006134 | GPS TRACKING 5/18 VARI DEPTS  | 06/30/18 | 264758 | 11,821.32- |
|                                        |              |          |          |                               |          |        | 4,062.68-  |
| -----                                  |              |          |          |                               |          |        |            |
| AT&T MOBILITY                          |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 ATCO INTERNATIONAL               | I0510604     | 00180753 | 17006388 | ANT POISON CEMETERY           | 06/30/18 | 264759 | 15,884.00- |
|                                        |              |          |          |                               |          |        | 511.00-    |
| -----                                  |              |          |          |                               |          |        |            |
| ATCO INTERNATIONAL                     |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 AUTO ARMATURE SERVICE IN 12609   |              | 00180309 | 17006152 | BATTERY U#20460 CEMETERY      | 06/30/18 | 264760 | 511.00-    |
| 00001 AUTO ARMATURE SERVICE IN 12694   |              | 00180643 | 17006243 | BATTERY U#20096 POLICE        | 06/30/18 | 264760 | 133.95-    |
| 00001 AUTO ARMATURE SERVICE IN 12741   |              | 00180713 | 17006378 | ALTERNATOR U#16083 PUB WORKS  | 06/30/18 | 264760 | 157.95-    |
|                                        |              |          |          |                               |          |        | 169.95-    |
| -----                                  |              |          |          |                               |          |        |            |
| AUTO ARMATURE SERVICE IN               |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 AUTOMOTIVE GLASS SPECIAL I223462 |              | 00180274 | 17006158 | WINDOW REPR U#9609 PUB WORKS  | 06/30/18 | 264762 | 461.85-    |
|                                        |              |          |          |                               |          |        | 225.00-    |
| -----                                  |              |          |          |                               |          |        |            |
| AUTOMOTIVE GLASS SPECIAL               |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 BENECOM TECHNOLOGIES INC 224382  |              | 00180486 | 17006174 | AS400 MAINT 5/18-4/19         | 06/30/18 | 264764 | 225.00-    |
|                                        |              |          |          |                               |          |        | 3,996.00-  |
| -----                                  |              |          |          |                               |          |        |            |
| BENECOM TECHNOLOGIES INC               |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 BIG IRON DIESEL REPAIR L RO2668  |              | 00179606 | 17006144 | REPRS U#12688 PUBLIC WORKS    | 06/30/18 | 264765 | 3,996.00-  |
| 00001 BIG IRON DIESEL REPAIR L RO2665  |              | 00178715 | 17006147 | REPRS U#14406 SANIT           | 06/30/18 | 264765 | 2,013.56-  |
|                                        |              |          |          |                               |          |        | 14,471.47- |
| -----                                  |              |          |          |                               |          |        |            |
| BIG IRON DIESEL REPAIR L               |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 BLACKINTON, V H CO INC 2904070   |              | 00180636 | 17006245 | BADGE REPR SHIP FEE           | 06/30/18 | 264766 | 16,485.03- |
| 00001 BLACKINTON, V H CO INC 2904072   |              | 00180636 | 17006246 | BADGE REPR SHIP FEE           | 06/30/18 | 264766 | 12.00-     |
|                                        |              |          |          |                               |          |        | 12.00-     |
| -----                                  |              |          |          |                               |          |        |            |
| BLACKINTON, V H CO INC                 |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 BOURNE BROTHERS PRINTING 65518   |              | 00180314 | 17006193 | YARD SIGNS NNO EVENTS         | 06/30/18 | 264769 | 24.00-     |
|                                        |              |          |          |                               |          |        | 100.00-    |
| -----                                  |              |          |          |                               |          |        |            |
| BOURNE BROTHERS PRINTING               |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 BRACKMAN MOWER WAREHOUSE 39160   |              | 00180347 | 17006369 | REPR PTS U#19280 HEALTH DIV   | 06/30/18 | 264772 | 100.00-    |
|                                        |              |          |          |                               |          |        | 70.52-     |
| -----                                  |              |          |          |                               |          |        |            |
| BRACKMAN MOWER WAREHOUSE               |              |          |          |                               |          |        |            |
| Sum                                    |              |          |          |                               |          |        |            |
| 00001 BRUNINI GRANTHAM GROWER 228605   |              | 00180781 | 17006403 | SERVS 5/18 GENERAL-SSO        | 06/30/18 | 264775 | 70.52-     |
|                                        |              |          |          |                               |          |        | 11,294.57- |

|                          |                          |              |          |          |                               |          |        |            |
|--------------------------|--------------------------|--------------|----------|----------|-------------------------------|----------|--------|------------|
|                          |                          |              |          |          |                               |          |        | -----      |
| BRUNINI GRANTHAM GROWER  |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 11,294.57- |
| 00001                    | BURNHAM, WILLIAM S       | TRAV ADVANCE | 00180562 | 17006221 | TRAV ADV AERIAL APPARATUS SCH | 06/30/18 | 264778 | 350.00-    |
|                          |                          |              |          |          |                               |          |        | -----      |
| BURNHAM, WILLIAM S       |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 350.00-    |
| 00001                    | C SPIRE (MEGAGATE)       | 1260605      | 00180501 | 17006172 | INTERNET/NETWORK 6/18         | 06/30/18 | 264779 | 15,130.55- |
|                          |                          |              |          |          |                               |          |        | -----      |
| C SPIRE (MEGAGATE)       |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 15,130.55- |
| 00001                    | CANON FINANCIAL SERVICES | 18749531     | 00180505 | 17006170 | COPIER 6/18 PURCHASING        | 06/30/18 | 264781 | 115.00-    |
|                          |                          |              |          |          |                               |          |        | -----      |
| CANON FINANCIAL SERVICES |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 115.00-    |
| 00001                    | CANON SOLUTIONS AMERICA  | 4026105406   | 00180483 | 17006118 | COPIER 6/18 PURCHASING        | 06/30/18 | 264782 | 35.09-     |
|                          |                          |              |          |          |                               |          |        | -----      |
| CANON SOLUTIONS AMERICA  |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 35.09-     |
| 00001                    | CARQUEST AUTO PARTS STOR | 14758-110260 | 00180382 | 17006146 | REPR PTS U#15922 CONSTR       | 06/30/18 | 264783 | 35.96-     |
| 00001                    | CARQUEST AUTO PARTS STOR | 14758-110469 | 00180480 | 17006196 | BATTERY U#19115 LAND CODE     | 06/30/18 | 264783 | 123.15-    |
| 00001                    | CARQUEST AUTO PARTS STOR | 14758-110258 | 00180212 | 17006238 | REPR PTS U#14147 PLANNING     | 06/30/18 | 264783 | 27.89-     |
| 00001                    | CARQUEST AUTO PARTS STOR | 14758-110706 | 00180366 | 17006363 | REPR PTS U#19887 SANIT        | 06/30/18 | 264783 | 13.12-     |
| 00001                    | CARQUEST AUTO PARTS STOR | 14758-110764 | 00180349 | 17006367 | REPR PTS U#16966 ST CLEAN     | 06/30/18 | 264783 | 107.53-    |
| 00001                    | CARQUEST AUTO PARTS STOR | 14758-110839 | 00180746 | 17006422 | GREASE GUN CEMETERY SHOP      | 06/30/18 | 264783 | 30.92-     |
|                          |                          |              |          |          |                               |          |        | -----      |
| CARQUEST AUTO PARTS STOR |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 338.57-    |
| 00001                    | CERTIFIED LABORATORIES   | 3164244      | 00180320 | 17006297 | OIL FOR POLICE SHOP           | 06/30/18 | 264785 | 1,086.25-  |
|                          |                          |              |          |          |                               |          |        | -----      |
| CERTIFIED LABORATORIES   |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 1,086.25-  |
| 00001                    | CINTAS CORPORATION #J66  | J66591869    | 00180526 | 17006184 | UNIFORMS 6/18 PUBLIC WORKS    | 06/30/18 | 264789 | 72.88-     |
| 00001                    | CINTAS CORPORATION #J66  | J66591863    | 00180526 | 17006185 | UNIFORMS 6/18 PUBLIC WORKS    | 06/30/18 | 264789 | 5.00-      |
| 00001                    | CINTAS CORPORATION #J66  | J66591866    | 00180526 | 17006186 | UNIFORMS 6/18 PUBLIC WORKS    | 06/30/18 | 264789 | 35.66-     |
| 00001                    | CINTAS CORPORATION #J66  | J66591848    | 00180526 | 17006187 | UNIFORMS 6/18 SHOP            | 06/30/18 | 264789 | 34.71-     |
| 00001                    | CINTAS CORPORATION #J66  | J66591865    | 00180526 | 17006188 | UNIFORMS 6/18 SANIT           | 06/30/18 | 264789 | 139.91-    |
| 00001                    | CINTAS CORPORATION #J66  | J66591867    | 00180526 | 17006189 | UNIFORMS 6/18 SANIT           | 06/30/18 | 264789 | 175.22-    |
| 00001                    | CINTAS CORPORATION #J66  | J66591871    | 00180531 | 17006190 | MOP/MAT 6/18 GO&FS            | 06/30/18 | 264789 | 24.96-     |
| 00001                    | CINTAS CORPORATION #J66  | J66591873    | 00180531 | 17006191 | MOP/MAT 6/18 SANIT            | 06/30/18 | 264789 | 24.04-     |
| 00001                    | CINTAS CORPORATION #J66  | J66591864    | 00180608 | 17006260 | UNIFORMS 6/18 CONSTR          | 06/30/18 | 264789 | 73.05-     |
| 00001                    | CINTAS CORPORATION #J66  | J66593068    | 00180739 | 17006380 | UNIFORMS 6/25 PUBLIC WORKS    | 06/30/18 | 264789 | 138.81-    |
| 00001                    | CINTAS CORPORATION #J66  | J66593072    | 00180739 | 17006381 | UNIFORMS 6/25 PUBLIC WORKS    | 06/30/18 | 264789 | 71.55-     |
| 00001                    | CINTAS CORPORATION #J66  | J66593066    | 00180739 | 17006382 | UNIFORMS 6/25 PUBLIC WORKS    | 06/30/18 | 264789 | 10.00-     |
| 00001                    | CINTAS CORPORATION #J66  | J66593069    | 00180739 | 17006383 | UNIFORMS 6/25 PUBLIC WORKS    | 06/30/18 | 264789 | 35.66-     |
| 00001                    | CINTAS CORPORATION #J66  | J66593071    | 00180739 | 17006384 | UNIFORMS 6/25 SHOP            | 06/30/18 | 264789 | 34.74-     |
| 00001                    | CINTAS CORPORATION #J66  | J66593070    | 00180739 | 17006385 | UNIFORMS 6/25 SANIT           | 06/30/18 | 264789 | 175.22-    |
| 00001                    | CINTAS CORPORATION #J66  | J66593074    | 00180744 | 17006386 | MOP/MAT 6/25 GO&FS            | 06/30/18 | 264789 | 24.96-     |
| 00001                    | CINTAS CORPORATION #J66  | J66593076    | 00180744 | 17006387 | MOP/MAT 6/25 SANIT            | 06/30/18 | 264789 | 24.04-     |
|                          |                          |              |          |          |                               |          |        | -----      |
| CINTAS CORPORATION #J66  |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 1,100.41-  |

|                                                                                            |          |        |               |
|--------------------------------------------------------------------------------------------|----------|--------|---------------|
| 00001 CITY OF HATTIESBURG FUND TRF 2ND 6/18 02018653 17006200 TRF 2ND 6/18 PAYROLL         | 06/19/18 | 112797 | 1,162,961.74- |
| -----                                                                                      |          |        |               |
| CITY OF HATTIESBURG FUND                                                                   |          |        |               |
| Sum                                                                                        |          |        | 1,162,961.74- |
| 00001 CLARK, JOSEPH TRAVEL REIMB 00180494 17006180 EXPNS RESCUE TECH TRNG                  | 06/30/18 | 264790 | 80.54-        |
| 00001 CLARK, JOSEPH TEST FEE REI 00180590 17006252 REIMB ROPE RESCUE TEST FEE              | 06/30/18 | 264790 | 50.00-        |
| -----                                                                                      |          |        |               |
| CLARK, JOSEPH                                                                              |          |        |               |
| Sum                                                                                        |          |        | 130.54-       |
| 00001 CLARKE 5081980 00180379 17006161 BIOMIST CHEMICAL HEALTH DIV                         | 06/30/18 | 264791 | 2,100.00-     |
| -----                                                                                      |          |        |               |
| CLARKE                                                                                     |          |        |               |
| Sum                                                                                        |          |        | 2,100.00-     |
| 00001 CLEAR CHANNEL RADIO-(IHE 4612283886 00177615 17006405 MEDIA 3/18 FINANCIAL LITERACY  | 06/30/18 | 264792 | 1,200.00-     |
| -----                                                                                      |          |        |               |
| CLEAR CHANNEL RADIO-(IHE                                                                   |          |        |               |
| Sum                                                                                        |          |        | 1,200.00-     |
| 00001 COBURN'S SUPPLY CO INC 601238174 00180220 17006145 WELDING TORCH TIPS CONSTR         | 06/30/18 | 264794 | 32.60-        |
| -----                                                                                      |          |        |               |
| COBURN'S SUPPLY CO INC                                                                     |          |        |               |
| Sum                                                                                        |          |        | 32.60-        |
| 00001 COLLINS, JOSEPH TRAVEL REIMB 00180545 17006219 EXPNS FIRE/LIFE SAFETY CLASS          | 06/30/18 | 264796 | 64.10-        |
| -----                                                                                      |          |        |               |
| COLLINS, JOSEPH                                                                            |          |        |               |
| Sum                                                                                        |          |        | 64.10-        |
| 00001 COMCAST CABLEVISION OF H 839641073089 00180625 17006240 CABLE 7/18 CITY HALL         | 06/30/18 | 264797 | 127.90-       |
| -----                                                                                      |          |        |               |
| COMCAST CABLEVISION OF H                                                                   |          |        |               |
| Sum                                                                                        |          |        | 127.90-       |
| 00001 COMPREHENSIVE RADIOLOGY ICRS74774 KE 00180668 17006274 SERV 5/22/18 KENDRICK PRISONR | 06/30/18 | 264798 | 72.00-        |
| 00001 COMPREHENSIVE RADIOLOGY ICRS74774 KE 00180668 17006275 SERV 5/24/18 KENDRICK PRISONR | 06/30/18 | 264798 | 39.00-        |
| 00001 COMPREHENSIVE RADIOLOGY ICRS74774 KE 00180668 17006276 SRV 5/24-25 KENDRICK PRISONER | 06/30/18 | 264798 | 170.00-       |
| 00001 COMPREHENSIVE RADIOLOGY ICRS74774 KE 00180668 17006277 SERV 5/26/18 KENDRICK PRISONR | 06/30/18 | 264798 | 41.00-        |
| 00001 COMPREHENSIVE RADIOLOGY ICRS152066 B 00180784 17006414 SRVS 5/30/18 BREWER PRISONER  | 06/30/18 | 264798 | 160.00-       |
| 00001 COMPREHENSIVE RADIOLOGY ICRS74774 KE 00180784 17006415 SERVS 5/27/18 KENDRICK PRSNR  | 06/30/18 | 264798 | 110.00-       |
| 00001 COMPREHENSIVE RADIOLOGY ICRS74774 KE 00180784 17006416 SRVS 5/26/18 KENDRICK PRISONR | 06/30/18 | 264798 | 34.00-        |
| 00001 COMPREHENSIVE RADIOLOGY ICRS74774 KE 00180784 17006417 SRVS 5/26/18 KENDRICK PRISONR | 06/30/18 | 264798 | 73.00-        |
| 00001 COMPREHENSIVE RADIOLOGY ICRS186880 R 00180784 17006418 SRVS 6/2/18 RILEY PRISONER    | 06/30/18 | 264798 | 34.00-        |
| 00001 COMPREHENSIVE RADIOLOGY ICRS186880 R 00180784 17006419 SRVS 6/2/18 RILEY PRISONER    | 06/30/18 | 264798 | 198.00-       |
| 00001 COMPREHENSIVE RADIOLOGY ICRS186880 R 00180784 17006420 SRVS 6/2/18 RILEY PRISONER    | 06/30/18 | 264798 | 243.00-       |
| -----                                                                                      |          |        |               |
| COMPREHENSIVE RADIOLOGY                                                                    |          |        |               |
| Sum                                                                                        |          |        | 1,174.00-     |
| 00001 CONNECTION INC 55854064 00179894 17006294 SOFTWARE LOWERY PLANNING DIV               | 06/30/18 | 264800 | 107.28-       |
| 00001 CONNECTION INC 55765550 00178421 17006356 IPAD COVER SEALY POLICE DEPT               | 06/30/18 | 264800 | 94.20-        |
| -----                                                                                      |          |        |               |
| CONNECTION INC                                                                             |          |        |               |
| Sum                                                                                        |          |        | 201.48-       |
| 00001 COURT PROGRAMS INC INVOICE #45 00180436 17006115 ANKLE MONITORING 5/18               | 06/30/18 | 264801 | 8,080.00-     |
| -----                                                                                      |          |        |               |
| COURT PROGRAMS INC                                                                         |          |        |               |
| Sum                                                                                        |          |        | 8,080.00-     |

|                                |              |                                                 |          |        |           |
|--------------------------------|--------------|-------------------------------------------------|----------|--------|-----------|
| 00001 COURTESY MOTORS INC      | 477532       | 00180345 17006149 REPR PTS U#17530 ST CLEAN     | 06/30/18 | 264802 | 38.01-    |
|                                |              |                                                 |          |        | -----     |
| COURTESY MOTORS INC            |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 38.01-    |
| 00001 CRAIN TRACTOR & EQUIPMEN | CP55602      | 00180062 17006150 REPR PTS U#16722/16723 HEALTH | 06/30/18 | 264804 | 3,213.08- |
| 00001 CRAIN TRACTOR & EQUIPMEN | CP55685      | 00180137 17006151 REPR PTS U#15514 HEALTH       | 06/30/18 | 264804 | 1,335.00- |
| 00001 CRAIN TRACTOR & EQUIPMEN | CP56208      | 00180517 17006392 REPR PTS U#15514/15516 P/W    | 06/30/18 | 264804 | 3,490.70- |
|                                |              |                                                 |          |        | -----     |
| CRAIN TRACTOR & EQUIPMEN       |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 8,038.78- |
| 00001 DAKTECH COMPUTERS        | INV0334810   | 00180315 17006239 RPLCMNT COMPUTERS VARI DEPTS  | 06/30/18 | 264807 | 5,995.00- |
|                                |              |                                                 |          |        | -----     |
| DAKTECH COMPUTERS              |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 5,995.00- |
| 00001 EATON, ALVIN K (PETTY CA | PETTY CASH 5 | 00180766 17006376 PETTY CASH 5/18 VARI DEPTS    | 06/30/18 | 264814 | 486.22-   |
|                                |              |                                                 |          |        | -----     |
| EATON, ALVIN K (PETTY CA       |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 486.22-   |
| 00001 ECONOMY SUPPLY CO        | 296934       | 00180328 17006165 PAINT PINE ST GARG GRAFFITI   | 06/30/18 | 264815 | 59.40-    |
| 00001 ECONOMY SUPPLY CO        | 296530       | 00180236 17006210 TRASH BIN PAINT CEMETERY      | 06/30/18 | 264815 | 71.40-    |
| 00001 ECONOMY SUPPLY CO        | 297078       | 00179841 17006233 BLDG MATLS PINE ST GARG BRKRM | 06/30/18 | 264815 | 817.35-   |
| 00001 ECONOMY SUPPLY CO        | 297287       | 00180600 17006259 MORTAR HOE CONSTR DEPT        | 06/30/18 | 264815 | 32.95-    |
| 00001 ECONOMY SUPPLY CO        | 297079       | 00180421 17006370 QUIKRETE AIRPORT              | 06/30/18 | 264815 | 23.60-    |
|                                |              |                                                 |          |        | -----     |
| ECONOMY SUPPLY CO              |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 1,004.70- |
| 00001 ELKINS WHOLESALE INC     | 347083       | 00179346 17006228 JANIT SUPP FIRE DEPT          | 06/30/18 | 264817 | 643.31-   |
|                                |              |                                                 |          |        | -----     |
| ELKINS WHOLESALE INC           |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 643.31-   |
| 00001 EMERGENCY EQUIPMENT PROF | 435331       | 00179482 17006372 FREIGHT CHARGE                | 06/30/18 | 264819 | 166.50-   |
|                                |              |                                                 |          |        | -----     |
| EMERGENCY EQUIPMENT PROF       |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 166.50-   |
| 00001 EMPIRE TRUCK SALES (H'BU | CE006136278: | 00179688 17006231 REPR PTS U#20089 SANIT        | 06/30/18 | 264820 | 61.29-    |
| 00001 EMPIRE TRUCK SALES (H'BU | CE006138070: | 00180572 17006359 REPR PTS U#20067 PUB WORKS    | 06/30/18 | 264820 | 87.05-    |
| 00001 EMPIRE TRUCK SALES (H'BU | CE006137715: | 00180367 17006394 REPR PTS U#20072/20070 SANIT  | 06/30/18 | 264820 | 265.92-   |
| 00001 EMPIRE TRUCK SALES (H'BU | CE006138209: | 00180698 17006395 REPR PTS U#15893 SANIT        | 06/30/18 | 264820 | 680.94-   |
|                                |              |                                                 |          |        | -----     |
| EMPIRE TRUCK SALES (H'BU       |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 1,095.20- |
| 00001 EQUIFAX INFORMATION SERV | 4877042      | 00180581 17006244 ONLINE INVESTIGATION          | 06/30/18 | 264821 | 31.86-    |
|                                |              |                                                 |          |        | -----     |
| EQUIFAX INFORMATION SERV       |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 31.86-    |
| 00001 EVT CERTIFICATION COMMIS | REG BURNHAM  | 00180563 17006223 REG BURNHAM AERIAL APP SCHOOL | 06/30/18 | 264824 | 60.00-    |
| 00001 EVT CERTIFICATION COMMIS | REG MITELSZT | 00180563 17006224 REG MITELSZTET AERIAL APP SCH | 06/30/18 | 264824 | 60.00-    |
|                                |              |                                                 |          |        | -----     |
| EVT CERTIFICATION COMMIS       |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 120.00-   |
| 00001 FASTENAL COMPANY         | MSHAT209695  | 00180325 17006160 SPORTS DRINKS SANIT DEPT      | 06/30/18 | 264826 | 112.22-   |
| 00001 FASTENAL COMPANY         | MSHAT209862  | 00180183 17006256 GLOVES TRAFFIC CREW           | 06/30/18 | 264826 | 235.26-   |

|                                |             |          |          |                               |                      |                     |                           |
|--------------------------------|-------------|----------|----------|-------------------------------|----------------------|---------------------|---------------------------|
| 00001 FASTENAL COMPANY         | MSHAT209819 | 00180371 | 17006270 | AGRI EQUIP BLADE BOLTS CMTERY | 06/30/18             | 264826              | 83.00-                    |
|                                |             |          |          |                               |                      |                     | -----                     |
| FASTENAL COMPANY               |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 430.48-                   |
| 00001 FERRARA FIRE APPARATUS I | PO#179032   | FR       | 00180618 | 17006314                      | FREIGHT CHGS         | PO#179032           | 06/30/18 264830 162.25-   |
|                                |             |          |          |                               |                      |                     | -----                     |
| FERRARA FIRE APPARATUS I       |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 162.25-                   |
| 00001 FLUIDS INC.              | 11649       |          | 00180374 | 17006368                      | MOSQUITO SPRAY       | HEALTH DIV          | 06/30/18 264831 1,883.75- |
|                                |             |          |          |                               |                      |                     | -----                     |
| FLUIDS INC.                    |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 1,883.75-                 |
| 00001 FORREST GENERAL HOSPITAL | 900459331   | ST       | 00180666 | 17006280                      | SERV 10/20/15        | STARR PRISONER      | 06/30/18 264834 102.60-   |
|                                |             |          |          |                               |                      |                     | -----                     |
| FORREST GENERAL HOSPITAL       |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 102.60-                   |
| 00001 FORREST GENERAL HOSPITAL | P803552550  | P        | 00180663 | 17006278                      | SERV 3/3/18          | PEYTON PRISONER     | 06/30/18 264835 480.00-   |
| 00001 FORREST GENERAL HOSPITAL | P803552560  | P        | 00180663 | 17006279                      | SERV 3/4/18          | PEYTON PRISONER     | 06/30/18 264835 90.00-    |
|                                |             |          |          |                               |                      |                     | -----                     |
| FORREST GENERAL HOSPITAL       |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 570.00-                   |
| 00001 FUELMAN OF MS            | BG127044    | NP5      | 00180521 | 17006171                      | FUEL CHGS 6/8/18     | PLANNING            | 06/30/18 264836 51.61-    |
| 00001 FUELMAN OF MS            | BG127044    | NP5      | 00180780 | 17006408                      | FUEL CHGS 6/11-17/18 | POLICE              | 06/30/18 264836 89.82-    |
|                                |             |          |          |                               |                      |                     | -----                     |
| FUELMAN OF MS                  |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 141.43-                   |
| 00001 FV RECYCLING             | 2018-12900  |          | 00180622 | 17006262                      | RECYCLE FEE 6/18     | SANIT               | 06/30/18 264837 55.75-    |
| 00001 FV RECYCLING             | 2018-12909  |          | 00180622 | 17006263                      | RECYCLE FEE 6/18     | SANIT               | 06/30/18 264837 44.75-    |
| 00001 FV RECYCLING             | 2018-12939  |          | 00180622 | 17006264                      | RECYCLE FEE 6/18     | SANIT               | 06/30/18 264837 26.00-    |
| 00001 FV RECYCLING             | 2018-12940  |          | 00180622 | 17006265                      | RECYCLE FEE 6/18     | SANIT               | 06/30/18 264837 89.25-    |
| 00001 FV RECYCLING             | 2018-12950  |          | 00180622 | 17006266                      | RECYCLE FEE 6/18     | SANIT               | 06/30/18 264837 14.50-    |
|                                |             |          |          |                               |                      |                     | -----                     |
| FV RECYCLING                   |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 230.25-                   |
| 00001 GILLILANDS ELECTRONICS   | S 66794(A)  |          | 00180485 | 17006234                      | NEW PHONE ADDED      | MUN COURT           | 06/30/18 264839 189.95-   |
| 00001 GILLILANDS ELECTRONICS   | S 66794(B)  |          | 00180628 | 17006235                      | LABOR CHG            | PO#180485 NEW PHONE | 06/30/18 264839 75.00-    |
| 00001 GILLILANDS ELECTRONICS   | S 66807     |          | 00180617 | 17006258                      | PROGRAM PHONE        | STREET DEPT         | 06/30/18 264839 89.75-    |
| 00001 GILLILANDS ELECTRONICS   | S 66793     |          | 00180425 | 17006303                      | REPR SEC CAMERA      | CONST/TRAFFIC       | 06/30/18 264839 169.95-   |
|                                |             |          |          |                               |                      |                     | -----                     |
| GILLILANDS ELECTRONICS S       |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 524.65-                   |
| 00001 GLADDEN LAW OFFICE PLLC  | 0188        |          | 00180779 | 17006404                      | CONSULTING FEES 6/18 |                     | 06/30/18 264840 1,762.25- |
|                                |             |          |          |                               |                      |                     | -----                     |
| GLADDEN LAW OFFICE PLLC        |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 1,762.25-                 |
| 00001 GLOBAL SECURITY COMPANY  | 10223       |          | 02018659 | 17006305                      | SECURITY DETAIL      | 06/30/18            | 06/30/18 264841 115.50-   |
|                                |             |          |          |                               |                      |                     | -----                     |
| GLOBAL SECURITY COMPANY        |             |          |          |                               |                      |                     |                           |
| Sum                            |             |          |          |                               |                      |                     | 115.50-                   |
| 00001 H'BURG CLINIC PA (PRISON | 1104983200  | E        | 00180638 | 17006281                      | SERV 4/28/18         | EVANS PRISONER      | 06/30/18 264847 354.00-   |
| 00001 H'BURG CLINIC PA (PRISON | 1096891570  | J        | 00180638 | 17006282                      | SERV 8/5/17          | JOHNSON PRISONER    | 06/30/18 264847 113.00-   |
| 00001 H'BURG CLINIC PA (PRISON | 1100231360  | L        | 00180638 | 17006283                      | SERV 10/15/17        | LEGGETT PRISONR     | 06/30/18 264847 90.00-    |

|                          |                          |              |   |          |          |                           |                    |          |        |           |
|--------------------------|--------------------------|--------------|---|----------|----------|---------------------------|--------------------|----------|--------|-----------|
| 00001                    | H'BURG CLINIC PA (PRISON | 1100231360   | L | 00180638 | 17006284 | SERV 10/15/17             | LEGGETT PRISONR    | 06/30/18 | 264847 | 45.00-    |
| 00001                    | H'BURG CLINIC PA (PRISON | 1100231370   | L | 00180638 | 17006285 | SERV 10/14/17             | LEGGETT PRISONR    | 06/30/18 | 264847 | 90.00-    |
| 00001                    | H'BURG CLINIC PA (PRISON | 1100231370   | L | 00180638 | 17006286 | SERV 10/14/17             | LEGGETT PRISONR    | 06/30/18 | 264847 | 15.00-    |
| 00001                    | H'BURG CLINIC PA (PRISON | 1099895131   | L | 00180638 | 17006287 | SRV 7/4/17                | LITTLETON PRISONER | 06/30/18 | 264847 | 90.00-    |
| 00001                    | H'BURG CLINIC PA (PRISON | 1099895131   | L | 00180638 | 17006288 | SRV 7/5/17                | LITTLETON PRISONER | 06/30/18 | 264847 | 90.00-    |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| H'BURG CLINIC PA (PRISON |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 887.00-   |
| 00001                    | H'BURG COCA COLA BOTTLIN | 1097225776   |   | 00180192 | 17006225 | BOTTLED WATER             | MAYOR'S OFFICE     | 06/30/18 | 264848 | 71.00-    |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| H'BURG COCA COLA BOTTLIN |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 71.00-    |
| 00001                    | HANCOCK BANK TRUST & FIN | 6/24/18 DUE  |   | 02018682 | 17006306 | MDB 2001 BONDS            | 12/22/08           | 06/25/18 | 112832 | 2,201.05- |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| HANCOCK BANK TRUST & FIN |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 2,201.05- |
| 00001                    | HARBOR FREIGHT           | 593130       |   | 00180398 | 17006253 | SAFETY TOOLBOX ITEMS      | LDC DIV            | 06/30/18 | 264850 | 304.01-   |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| HARBOR FREIGHT           |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 304.01-   |
| 00001                    | HARDGES, KERRY           | TRAVEL REIMB |   | 00180648 | 17006250 | EXPNS ROPE RESCUE CLASS   |                    | 06/30/18 | 264851 | 63.88-    |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| HARDGES, KERRY           |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 63.88-    |
| 00001                    | HATTEN, LUKE             | TRAVEL REIMB |   | 00180493 | 17006181 | EXPNS MAZ MATLS CLASS     |                    | 06/30/18 | 264852 | 149.57-   |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| HATTEN, LUKE             |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 149.57-   |
| 00001                    | HATTIESBURG HYDRAULICS I | 74519        |   | 00180365 | 17006364 | REPR PTS U#14406          | SANIT              | 06/30/18 | 264853 | 246.31-   |
| 00001                    | HATTIESBURG HYDRAULICS I | 74589        |   | 00180495 | 17006365 | REPR PTS U#20068          | SANIT              | 06/30/18 | 264853 | 369.40-   |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| HATTIESBURG HYDRAULICS I |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 615.71-   |
| 00001                    | HAVARD PEST CONTROL INC  | 1301479      |   | 02018654 | 17006337 | SENTRICON P/W SHOP        |                    | 06/30/18 | 264854 | 249.00-   |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| HAVARD PEST CONTROL INC  |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 249.00-   |
| 00001                    | HOL-MAC CORPORATION      | 348840       |   | 00180623 | 17006366 | REPR PTS U#14408          | SANIT              | 06/30/18 | 264856 | 280.84-   |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| HOL-MAC CORPORATION      |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 280.84-   |
| 00001                    | HOOK-FAST SPECIALTIES IN | 331096       |   | 00178229 | 17006182 | FIRE DEPT BADGES          |                    | 06/30/18 | 264859 | 2,047.37- |
| 00001                    | HOOK-FAST SPECIALTIES IN | 331266       |   | 00180100 | 17006195 | NAME TAGS NEW/ASST CHIEFS |                    | 06/30/18 | 264859 | 41.07-    |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |
| HOOK-FAST SPECIALTIES IN |                          |              |   |          |          |                           |                    |          |        |           |
| Sum                      |                          |              |   |          |          |                           |                    |          |        | 2,088.44- |
| 00001                    | HUB CITY SPOKES          | 82032        |   | 00180595 | 17006236 | CITY WIDE ADS AND NOTICES |                    | 06/30/18 | 264860 | 80.88-    |
| 00001                    | HUB CITY SPOKES          | 82031        |   | 00180596 | 17006237 | CITY WIDE ADS AND NOTICES |                    | 06/30/18 | 264860 | 528.84-   |
| 00001                    | HUB CITY SPOKES          | 82030        |   | 00180594 | 17006241 | CITY WIDE ADS AND NOTICES |                    | 06/30/18 | 264860 | 55.80-    |
| 00001                    | HUB CITY SPOKES          | 82103        |   | 00180722 | 17006326 | CITY WIDE ADS AND NOTICES |                    | 06/30/18 | 264860 | 36.24-    |
| 00001                    | HUB CITY SPOKES          | 81921        |   | 00180723 | 17006327 | CITY WIDE ADS AND NOTICES |                    | 06/30/18 | 264860 | 540.00-   |
| -----                    |                          |              |   |          |          |                           |                    |          |        |           |

## HUB CITY SPOKES

|                     |              |          |          |                              |          |        |           |
|---------------------|--------------|----------|----------|------------------------------|----------|--------|-----------|
| Sum                 |              |          |          |                              |          |        | 1,241.76- |
| 00001 HUGHES SUPPLY | S153072641.0 | 00180022 | 17006226 | A/C REPR SUPP INFO TECH DEPT | 06/30/18 | 264861 | 45.36-    |
|                     |              |          |          |                              |          |        | -----     |

## HUGHES SUPPLY

|                  |        |          |          |                             |          |        |           |
|------------------|--------|----------|----------|-----------------------------|----------|--------|-----------|
| Sum              |        |          |          |                             |          |        | 45.36-    |
| 00001 IMAGETREND | 111943 | 00180748 | 17006377 | ANNUAL FEE ELITE RESCUE CAD | 06/30/18 | 264864 | 1,802.50- |
|                  |        |          |          |                             |          |        | -----     |

## IMAGETREND

|                  |         |          |          |                      |          |        |           |
|------------------|---------|----------|----------|----------------------|----------|--------|-----------|
| Sum              |         |          |          |                      |          |        | 1,802.50- |
| 00001 INDOFF INC | 3117245 | 00180223 | 17006162 | OFFICE SUPP CEMETERY | 06/30/18 | 264865 | 162.71-   |
|                  |         |          |          |                      |          |        | -----     |

## INDOFF INC

|                                |          |          |          |                              |          |        |         |
|--------------------------------|----------|----------|----------|------------------------------|----------|--------|---------|
| Sum                            |          |          |          |                              |          |        | 162.71- |
| 00001 INTERFACE SECURITY SYSTE | 19107264 | 00180752 | 17006389 | SECURITY 7/18 SOUTH HILL CEM | 06/30/18 | 264866 | 29.95-  |
| 00001 INTERFACE SECURITY SYSTE | 19100131 | 00180752 | 17006390 | SECURITY 7/18 HIGHLAND CEM   | 06/30/18 | 264866 | 33.02-  |
|                                |          |          |          |                              |          |        | -----   |

## INTERFACE SECURITY SYSTE

|                         |              |          |          |                               |          |        |           |
|-------------------------|--------------|----------|----------|-------------------------------|----------|--------|-----------|
| Sum                     |              |          |          |                               |          |        | 62.97-    |
| 00001 IRBY, STUART C CO | S010774771.0 | 00180170 | 17006320 | KNOCKOUT TOOL CONSTR DEPT     | 06/30/18 | 264867 | 2,042.30- |
| 00001 IRBY, STUART C CO | S010778645.0 | 00179990 | 17006324 | ELEC SUPP CONCRETE WORK AIRPT | 06/30/18 | 264867 | 245.58-   |
|                         |              |          |          |                               |          |        | -----     |

## IRBY, STUART C CO

|                      |       |          |          |                     |          |        |           |
|----------------------|-------|----------|----------|---------------------|----------|--------|-----------|
| Sum                  |       |          |          |                     |          |        | 2,287.88- |
| 00001 J M H GRAPHICS | 14251 | 00180395 | 17006299 | EVENT WORK T SHIRTS | 06/30/18 | 264868 | 519.00-   |
|                      |       |          |          |                     |          |        | -----     |

## J M H GRAPHICS

|                                |       |          |          |                         |          |        |         |
|--------------------------------|-------|----------|----------|-------------------------|----------|--------|---------|
| Sum                            |       |          |          |                         |          |        | 519.00- |
| 00001 JOHNNY'S WRECKER SERVICE | 36373 | 00180458 | 17006148 | TOWING U#20089 SANIT    | 06/30/18 | 264873 | 250.00- |
| 00001 JOHNNY'S WRECKER SERVICE | 36370 | 00180461 | 17006153 | TOWING U#12891 CEMETERY | 06/30/18 | 264873 | 250.00- |
|                                |       |          |          |                         |          |        | -----   |

## JOHNNY'S WRECKER SERVICE

|                  |              |          |          |                          |          |        |         |
|------------------|--------------|----------|----------|--------------------------|----------|--------|---------|
| Sum              |              |          |          |                          |          |        | 500.00- |
| 00001 KEYS, CODY | TRAVEL REIMB | 00180649 | 17006251 | EXPNS HAZ MATLS TRAINING | 06/30/18 | 264877 | 177.62- |
|                  |              |          |          |                          |          |        | -----   |

## KEYS, CODY

|                         |           |          |          |                      |          |        |         |
|-------------------------|-----------|----------|----------|----------------------|----------|--------|---------|
| Sum                     |           |          |          |                      |          |        | 177.62- |
| 00001 LAMAR CTY SHERIFF | JAIL 5/18 | 00180647 | 17006255 | HOUSING INMATES 5/18 | 06/30/18 | 264882 | 900.00- |
|                         |           |          |          |                      |          |        | -----   |

## LAMAR CTY SHERIFF

|                                |       |          |          |                      |          |        |         |
|--------------------------------|-------|----------|----------|----------------------|----------|--------|---------|
| Sum                            |       |          |          |                      |          |        | 900.00- |
| 00001 LANCASTER'S MACHINE & WE | 23605 | 00180633 | 17006323 | REPRS U#17162 HEALTH | 06/30/18 | 264883 | 75.00-  |
|                                |       |          |          |                      |          |        | -----   |

## LANCASTER'S MACHINE &amp; WE

|                               |      |          |          |                       |          |        |        |
|-------------------------------|------|----------|----------|-----------------------|----------|--------|--------|
| Sum                           |      |          |          |                       |          |        | 75.00- |
| 00001 LARRY'S WRECKER SERVICE | 4803 | 00180451 | 17006135 | TOWING U#18323 POLICE | 06/30/18 | 264884 | 55.00- |
| 00001 LARRY'S WRECKER SERVICE | 4588 | 00180451 | 17006136 | TOWING U#18322 POLICE | 06/30/18 | 264884 | 55.00- |
| 00001 LARRY'S WRECKER SERVICE | 4808 | 00180583 | 17006247 | TOWING U#18327 POLICE | 06/30/18 | 264884 | 55.00- |
| 00001 LARRY'S WRECKER SERVICE | 4809 | 00180583 | 17006248 | TOWING U#18332 POLICE | 06/30/18 | 264884 | 55.00- |
| 00001 LARRY'S WRECKER SERVICE | 4592 | 00180642 | 17006249 | TOWING U#18322 POLICE | 06/30/18 | 264884 | 55.00- |
|                               |      |          |          |                       |          |        | -----  |

## LARRY'S WRECKER SERVICE



|                                |              |          |          |                               |          |        |            |
|--------------------------------|--------------|----------|----------|-------------------------------|----------|--------|------------|
| Sum                            |              |          |          |                               |          |        | 275.00-    |
| 00001 LASHER, CASSUNDRA (REFUN | DAMAGE DEP R | 02018660 | 17006335 | DAMAGE DEPOSIT REFUND         | 06/30/18 | 264885 | 600.00-    |
|                                |              |          |          |                               |          |        | -----      |
| LASHER, CASSUNDRA (REFUN       |              |          |          |                               |          |        | 600.00-    |
| Sum                            |              |          |          |                               |          |        | 141.15-    |
| 00001 LINEBARGER GOGGAN BLAIR  | 6/15/2018    | 02018669 | 17006353 | POLICE FINES COLL.FEE         | 06/30/18 | 264890 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| LINEBARGER GOGGAN BLAIR        |              |          |          |                               |          |        | 141.15-    |
| Sum                            |              |          |          |                               |          |        | 800.00-    |
| 00001 MAY'S TRUCKING SERVICE   | 456432       | 00180678 | 17006315 | CLEAR LOT CAMP AT S 20TH AVE  | 06/30/18 | 264892 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MAY'S TRUCKING SERVICE         |              |          |          |                               |          |        | 800.00-    |
| Sum                            |              |          |          |                               |          |        | 13,576.50- |
| 00001 MCCi LLC                 | 00013836     | 00180679 | 17006311 | LASERFICHE MAINT 6/18-6/19    | 06/30/18 | 264894 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MCCi LLC                       |              |          |          |                               |          |        | 13,576.50- |
| Sum                            |              |          |          |                               |          |        | 30,377.24- |
| 00001 MEDICAL ANALYSIS-GHV     | 10325        | 00180568 | 17006218 | MNTHLY FEE EMP MED CLINIC     | 06/30/18 | 264896 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MEDICAL ANALYSIS-GHV           |              |          |          |                               |          |        | 30,377.24- |
| Sum                            |              |          |          |                               |          |        | 442.92-    |
| 00001 MID SOUTH UNIFORM & SUPP | 577807       | 00179112 | 17006298 | UNIFORMS/NAMEPLATE LATERAL    | 06/30/18 | 264897 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MID SOUTH UNIFORM & SUPP       |              |          |          |                               |          |        | 442.92-    |
| Sum                            |              |          |          |                               |          |        | 350.50-    |
| 00001 MIDSOUTH SOLUTIONS       | 121476       | 00175691 | 17006137 | NEW FIREFIGHTER UNIFORMS      | 06/30/18 | 264898 | -----      |
| 00001 MIDSOUTH SOLUTIONS       | 121477       | 00175947 | 17006138 | NEW FIREFIGHTER UNIFORMS      | 06/30/18 | 264898 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MIDSOUTH SOLUTIONS             |              |          |          |                               |          |        | 693.25-    |
| Sum                            |              |          |          |                               |          |        | 200.00-    |
| 00001 MILLS & SCANLON, P.A.    | 1292-0017M S | 00180701 | 17006328 | SERVS MANDALAY VILLAS         | 06/30/18 | 264899 | -----      |
| 00001 MILLS & SCANLON, P.A.    | 1292-0016M S | 00180702 | 17006329 | SERVS PIERCE INCLUSION        | 06/30/18 | 264899 | -----      |
| 00001 MILLS & SCANLON, P.A.    | 1292-0012M S | 00180703 | 17006330 | SERVS 2016 ANNEXATION         | 06/30/18 | 264899 | -----      |
| 00001 MILLS & SCANLON, P.A.    | 1292-0013M S | 00180704 | 17006331 | SERVS PETAL 2016 ANNEXATION   | 06/30/18 | 264899 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MILLS & SCANLON, P.A.          |              |          |          |                               |          |        | 24,494.13- |
| Sum                            |              |          |          |                               |          |        | 119.99-    |
| 00001 MINIT MART               | 62018        | 00180350 | 17006293 | NNO KICKOFF SUPPLIES          | 06/30/18 | 264900 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MINIT MART                     |              |          |          |                               |          |        | 119.99-    |
| Sum                            |              |          |          |                               |          |        | 182.74-    |
| 00001 MITCHELL TOOL SALES & SE | 100026       | 00180700 | 17006371 | TORQUE WRENCH CEMETERY SHOP   | 06/30/18 | 264901 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MITCHELL TOOL SALES & SE       |              |          |          |                               |          |        | 182.74-    |
| Sum                            |              |          |          |                               |          |        | 150.00-    |
| 00001 MITELSZTET, ZBIGNIEW     | TRAV ADVANCE | 00180561 | 17006222 | TRAV ADV AERIAL APPARATUS SCH | 06/30/18 | 264902 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MITELSZTET, ZBIGNIEW           |              |          |          |                               |          |        | 150.00-    |
| Sum                            |              |          |          |                               |          |        | 200.00-    |
| 00001 MS DEPARTMENT OF ENVIRON | ASBESTOS CER | 00180676 | 17006317 | ASBESTOS CERTIFICATION-PRICE  | 06/30/18 | 264908 | -----      |
|                                |              |          |          |                               |          |        | -----      |
| MS DEPARTMENT OF ENVIRON       |              |          |          |                               |          |        |            |

|                                |              |          |          |                               |          |        |             |
|--------------------------------|--------------|----------|----------|-------------------------------|----------|--------|-------------|
| Sum                            |              |          |          |                               |          |        | 200.00-     |
| 00001 MS MUSIC INC             | 1083543      | 00180782 | 17006407 | SOUND SYS MEMORIAL DAY 2018   | 06/30/18 | 264909 | 375.00-     |
|                                |              |          |          |                               |          |        | -----       |
| MS MUSIC INC                   |              |          |          |                               |          |        | 375.00-     |
| Sum                            |              |          |          |                               |          |        | 117,154.38- |
| 00001 MS POWER COMPANY         | 6/18 GENERAL | 00201818 | 17006355 | MNTHLY ELEC-GENERAL           | 06/30/18 | 264910 | -----       |
| MS POWER COMPANY               |              |          |          |                               |          |        | 117,154.38- |
| Sum                            |              |          |          |                               |          |        | 115.00-     |
| 00001 MS TURF                  | 818631       | 00180406 | 17006267 | GRASS SOD CEMETERIES          | 06/30/18 | 264911 | 115.00-     |
| 00001 MS TURF                  | 818632       | 00180542 | 17006268 | GRASS SOD CEMETERIES          | 06/30/18 | 264911 | -----       |
| MS TURF                        |              |          |          |                               |          |        | 230.00-     |
| Sum                            |              |          |          |                               |          |        | 4.00-       |
| 00001 NAPA AUTO PARTS          | 577167 FREIG | 00180149 | 17006139 | FREIGHT CHG                   | 06/30/18 | 264912 | 120.25      |
| 00001 NAPA AUTO PARTS          | 5930-576913  | 00180424 | 17006199 | CREDIT PO#179781              | 06/30/18 | 264912 | -----       |
| NAPA AUTO PARTS                |              |          |          |                               |          |        | 116.25      |
| Sum                            |              |          |          |                               |          |        | 66.70-      |
| 00001 NATL ASSN OF TOWN WATCH  | NN08357      | 00180571 | 17006400 | NNO SHIRTS VOLUNTEERS         | 06/30/18 | 264913 | -----       |
| NATL ASSN OF TOWN WATCH        |              |          |          |                               |          |        | 66.70-      |
| Sum                            |              |          |          |                               |          |        | 294.24-     |
| 00001 NEWELL PAPER COMPANY     | 4030390      | 00180443 | 17006301 | RESTROOM SUPP PUBLIC WORKS    | 06/30/18 | 264914 | -----       |
| NEWELL PAPER COMPANY           |              |          |          |                               |          |        | 294.24-     |
| Sum                            |              |          |          |                               |          |        | 52.59-      |
| 00001 NORTHERN TOOL & EQUIP CO | 40410841     | 00179808 | 17006232 | SPRAYER PARTS CEMETERY        | 06/30/18 | 264916 | -----       |
| NORTHERN TOOL & EQUIP CO       |              |          |          |                               |          |        | 52.59-      |
| Sum                            |              |          |          |                               |          |        | 619.97-     |
| 00001 OFFICE DEPOT INC         | 2197015077   | 00180327 | 17006155 | COMPUTER MONITORS MUN COURT   | 06/30/18 | 264917 | 519.96      |
| 00001 OFFICE DEPOT INC         | 967233137001 | 00180327 | 17006166 | CREDIT PO#173877 MUN COURT    | 06/30/18 | 264917 | 57.30       |
| 00001 OFFICE DEPOT INC         | 976378903001 | 00180327 | 17006167 | CREDIT PO#173877 MUN COURT    | 06/30/18 | 264917 | 129.99-     |
| 00001 OFFICE DEPOT INC         | 2195649265   | 00180116 | 17006319 | MONITOR KEITH PARKS PUB WORKS | 06/30/18 | 264917 | 5.27-       |
| 00001 OFFICE DEPOT INC         | 152296323001 | 00180323 | 17006360 | OFFICE SUPP ENGR DEPT         | 06/30/18 | 264917 | 8.58-       |
| 00001 OFFICE DEPOT INC         | 152296324001 | 00180323 | 17006361 | OFFICE SUPP ENGR DEPT         | 06/30/18 | 264917 | -----       |
| OFFICE DEPOT INC               |              |          |          |                               |          |        | 186.55-     |
| Sum                            |              |          |          |                               |          |        | 606.24-     |
| 00001 OFFICE PRODUCTS PLUS     | 832915-0     | 00180231 | 17006156 | OFFICE CHAIRS FIRE ADM        | 06/30/18 | 264919 | 816.47-     |
| 00001 OFFICE PRODUCTS PLUS     | 832068-0     | 00179999 | 17006201 | OFFICE SUPP MUN COURT         | 06/30/18 | 264919 | 12.36-      |
| 00001 OFFICE PRODUCTS PLUS     | 832068-2     | 00179999 | 17006202 | OFFICE SUPP MUN COURT         | 06/30/18 | 264919 | 197.61-     |
| 00001 OFFICE PRODUCTS PLUS     | 832070-0     | 00180000 | 17006203 | JANIT SUPP MUN COURT          | 06/30/18 | 264919 | 17.09-      |
| 00001 OFFICE PRODUCTS PLUS     | 832070-1     | 00180000 | 17006204 | JANIT SUPP MUN COURT          | 06/30/18 | 264919 | 160.14-     |
| 00001 OFFICE PRODUCTS PLUS     | 832743-0     | 00180205 | 17006205 | OFFICE SUPP P/F ACADEMY       | 06/30/18 | 264919 | 349.90-     |
| 00001 OFFICE PRODUCTS PLUS     | 832740-0     | 00180209 | 17006207 | COPY PAPER LAND CODE DIV      | 06/30/18 | 264919 | 35.96-      |
| 00001 OFFICE PRODUCTS PLUS     | 833247-0     | 00180411 | 17006208 | OFFICE SUPP TRAFFIC DEPT      | 06/30/18 | 264919 | 51.80-      |
| 00001 OFFICE PRODUCTS PLUS     | 833463-0     | 00180449 | 17006209 | HAND SOAP PUBLIC WORKS        | 06/30/18 | 264919 | 57.98       |
| 00001 OFFICE PRODUCTS PLUS     | C 832068-0   | 00179999 | 17006211 | CREDIT RETURN                 | 06/30/18 | 264919 | 10.06       |
| 00001 OFFICE PRODUCTS PLUS     | C 832070-0   | 00180000 | 17006212 | CREDIT RETURN                 | 06/30/18 | 264919 | 190.29-     |
| 00001 OFFICE PRODUCTS PLUS     | 833813-0     | 00180560 | 17006357 | OFFICE SUPP FIRE ADM          | 06/30/18 | 264919 |             |

|                                             |            |                                                 |          |        |            |
|---------------------------------------------|------------|-------------------------------------------------|----------|--------|------------|
| 00001 OFFICE PRODUCTS PLUS                  | 833813-1   | 00180560 17006358 OFFICE SUPP FIRE ADM          | 06/30/18 | 264919 | 10.79-     |
| -----                                       |            |                                                 |          |        |            |
| OFFICE PRODUCTS PLUS                        |            |                                                 |          |        |            |
| Sum                                         |            |                                                 |          |        | 2,380.61-  |
| 00001 PARISH TRACTOR                        | 02-61911   | 00180518 17006393 REPR PTS U#15516 PUB WORKS    | 06/30/18 | 264921 | 1,080.09-  |
| -----                                       |            |                                                 |          |        |            |
| PARISH TRACTOR                              |            |                                                 |          |        |            |
| Sum                                         |            |                                                 |          |        | 1,080.09-  |
| 00001 PEARL RIVER VALLEY EPA ( 6/18 GENERAL | 00201818   | 17006352 MNTHLY 6/18 PUBLIC SERVICES            | 06/30/18 | 264923 | 1,349.50-  |
| -----                                       |            |                                                 |          |        |            |
| PEARL RIVER VALLEY EPA (                    |            |                                                 |          |        |            |
| Sum                                         |            |                                                 |          |        | 1,349.50-  |
| 00001 PHILLIPS CAR CARE CENTER 01849        |            | 00178168 17006229 500 MILE MAINT U#14700        | 06/30/18 | 264927 | 32.50-     |
| -----                                       |            |                                                 |          |        |            |
| PHILLIPS CAR CARE CENTER                    |            |                                                 |          |        |            |
| Sum                                         |            |                                                 |          |        | 32.50-     |
| 00001 PINE BELT OIL COMPANY IN 6767910      |            | 00180442 17006124 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 50.00-     |
| 00001 PINE BELT OIL COMPANY IN 6767951      |            | 00180442 17006125 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 41.69-     |
| 00001 PINE BELT OIL COMPANY IN 9105205      |            | 00180442 17006126 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 39.82-     |
| 00001 PINE BELT OIL COMPANY IN 9105213      |            | 00180442 17006127 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 53.69-     |
| 00001 PINE BELT OIL COMPANY IN 9105211      |            | 00180442 17006128 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 9.48-      |
| 00001 PINE BELT OIL COMPANY IN 9105247      |            | 00180442 17006129 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 43.74-     |
| 00001 PINE BELT OIL COMPANY IN 9105209      |            | 00180442 17006130 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 15.06-     |
| 00001 PINE BELT OIL COMPANY IN 9105243      |            | 00180442 17006131 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 42.25-     |
| 00001 PINE BELT OIL COMPANY IN 9105235      |            | 00180442 17006132 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 43.50-     |
| 00001 PINE BELT OIL COMPANY IN 9105232      |            | 00180442 17006133 REMOTE SITE FUEL CHG POLICE   | 06/30/18 | 264928 | 42.85-     |
| 00001 PINE BELT OIL COMPANY IN 10560271     |            | 00180504 17006291 GAS FOR FUEL STATION          | 06/30/18 | 264928 | 12,958.41- |
| 00001 PINE BELT OIL COMPANY IN 10560281     |            | 00180504 17006292 DIESEL FOR FUEL STATION       | 06/30/18 | 264928 | 6,845.48-  |
| -----                                       |            |                                                 |          |        |            |
| PINE BELT OIL COMPANY IN                    |            |                                                 |          |        |            |
| Sum                                         |            |                                                 |          |        | 20,185.97- |
| 00001 PITNEY BOWES                          | 1007567142 | 00180197 17006242 MAIL MACHINE INK CARTRIDGE    | 06/30/18 | 264931 | 231.99-    |
| -----                                       |            |                                                 |          |        |            |
| PITNEY BOWES                                |            |                                                 |          |        |            |
| Sum                                         |            |                                                 |          |        | 231.99-    |
| 00001 PITNEY BOWES INC-METER R 3306227174   |            | 00180473 17006120 MAIL MACHINE LEASE 4-6/18     | 06/30/18 | 264932 | 1,206.87-  |
| -----                                       |            |                                                 |          |        |            |
| PITNEY BOWES INC-METER R                    |            |                                                 |          |        |            |
| Sum                                         |            |                                                 |          |        | 1,206.87-  |
| 00001 POPE & POPE, PA                       | 18024      | 00180554 17006213 REIMB POSTAGE EXPENSE         | 06/30/18 | 264934 | 49.03-     |
| 00001 POPE & POPE, PA                       | 18017      | 00180554 17006214 REIMB PUBLICATION EXPENSE     | 06/30/18 | 264934 | 157.14-    |
| -----                                       |            |                                                 |          |        |            |
| POPE & POPE, PA                             |            |                                                 |          |        |            |
| Sum                                         |            |                                                 |          |        | 206.17-    |
| 00001 RICOH CORP                            | 5052626486 | 00180659 17006254 COPIER 2/18 LAND CODE DIV     | 06/30/18 | 264940 | 126.17-    |
| 00001 RICOH CORP                            | 30241795   | 00180717 17006333 COPIER 7/18 LAND CODE         | 06/30/18 | 264940 | 110.00-    |
| -----                                       |            |                                                 |          |        |            |
| RICOH CORP                                  |            |                                                 |          |        |            |
| Sum                                         |            |                                                 |          |        | 236.17-    |
| 00001 RITE IN THE RAIN                      | 521230     | 00178464 17006313 SNIPER TEAM TRAINING SUPPLIES | 06/30/18 | 264941 | 697.60-    |
| -----                                       |            |                                                 |          |        |            |
| RITE IN THE RAIN                            |            |                                                 |          |        |            |

|                          |                          |              |          |          |                               |          |        |           |
|--------------------------|--------------------------|--------------|----------|----------|-------------------------------|----------|--------|-----------|
| Sum                      |                          |              |          |          |                               |          |        | 697.60-   |
| 00001                    | RJ YOUNG COMPANY         | 2494922      | 00180463 | 17006116 | COPIER 4/25-5/24 MUN COURT    | 06/30/18 | 264942 | 335.00-   |
| 00001                    | RJ YOUNG COMPANY         | INV2494923   | 00180437 | 17006117 | COPIER 4/24-5/25 MUN COURT    | 06/30/18 | 264942 | 168.00-   |
| 00001                    | RJ YOUNG COMPANY         | 2530606      | 00180535 | 17006169 | COPIER 5/14-6/13 CITY CLERK   | 06/30/18 | 264942 | 298.00-   |
| 00001                    | RJ YOUNG COMPANY         | INV2530607   | 00180538 | 17006183 | COPIER 5/14-6/13 ENGR DEPT    | 06/30/18 | 264942 | 318.00-   |
| 00001                    | RJ YOUNG COMPANY         | INV2518325   | 00180564 | 17006215 | COPIER 5/6-6/5/18 PLANNING    | 06/30/18 | 264942 | 369.00-   |
| 00001                    | RJ YOUNG COMPANY         | INV2535211   | 00180769 | 17006402 | COPIER 5/16-6/15 MPO DIV      | 06/30/18 | 264942 | 174.00-   |
|                          |                          |              |          |          |                               |          |        | -----     |
| RJ YOUNG COMPANY         |                          |              |          |          |                               |          |        |           |
| Sum                      |                          |              |          |          |                               |          |        | 1,662.00- |
| 00001                    | ROPER SUPPLY CO LLC      | 50634        | 00179339 | 17006227 | GUN MOUNTS 10 NEW POLICE UNTS | 06/30/18 | 264945 | 1,969.00- |
|                          |                          |              |          |          |                               |          |        | -----     |
| ROPER SUPPLY CO LLC      |                          |              |          |          |                               |          |        |           |
| Sum                      |                          |              |          |          |                               |          |        | 1,969.00- |
| 00001                    | RUTLAND, LAMAR           | TRAVEL REIMB | 00180675 | 17006318 | EXPNS MS/AL ENGR CONF BILOXI  | 06/30/18 | 264946 | 632.34-   |
|                          |                          |              |          |          |                               |          |        | -----     |
| RUTLAND, LAMAR           |                          |              |          |          |                               |          |        |           |
| Sum                      |                          |              |          |          |                               |          |        | 632.34-   |
| 00001                    | SCOTTS HYDRAULIC SERVICE | 33568        | 00180426 | 17006159 | REPRS U#13174 PUBLIC WORKS    | 06/30/18 | 264950 | 348.26-   |
|                          |                          |              |          |          |                               |          |        | -----     |
| SCOTTS HYDRAULIC SERVICE |                          |              |          |          |                               |          |        |           |
| Sum                      |                          |              |          |          |                               |          |        | 348.26-   |
| 00001                    | SMITH, JIM SERVICES      | 88917        | 00180777 | 17006411 | NEW A/C UNIT P/F ACADEMY      | 06/30/18 | 264961 | 4,798.57- |
| 00001                    | SMITH, JIM SERVICES      | 88920        | 00180778 | 17006412 | A/C REPR P/F ACADEMY          | 06/30/18 | 264961 | 515.98-   |
|                          |                          |              |          |          |                               |          |        | -----     |
| SMITH, JIM SERVICES      |                          |              |          |          |                               |          |        |           |
| Sum                      |                          |              |          |          |                               |          |        | 5,314.55- |
| 00001                    | SOUTH MS EMERGENCY PHYSI | SHM036471459 | 00180667 | 17006289 | SRV 5/1/18 BREWER PRISONER    | 06/30/18 | 264964 | 730.00-   |
| 00001                    | SOUTH MS EMERGENCY PHYSI | SHM036520803 | 00180667 | 17006290 | SRV 5/3/18 BREWER PRISONER    | 06/30/18 | 264964 | 730.00-   |
|                          |                          |              |          |          |                               |          |        | -----     |
| SOUTH MS EMERGENCY PHYSI |                          |              |          |          |                               |          |        |           |
| Sum                      |                          |              |          |          |                               |          |        | 1,460.00- |
| 00001                    | SOUTHEASTERN CONCRETE CO | 30997        | 00178662 | 17006340 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 1,025.00- |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31137        | 00178662 | 17006341 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 1,230.00- |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31181        | 00178662 | 17006342 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 1,230.00- |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31324        | 00178662 | 17006343 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 615.00-   |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31366        | 00178662 | 17006344 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 512.50-   |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31403        | 00178662 | 17006345 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 330.00-   |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31404        | 00178662 | 17006346 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 307.50-   |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31450        | 00178662 | 17006347 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 278.75-   |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31550        | 00178662 | 17006348 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 319.50-   |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31585        | 00178662 | 17006349 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 432.50-   |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31602        | 00178662 | 17006350 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 1,230.00- |
| 00001                    | SOUTHEASTERN CONCRETE CO | 31654        | 00178662 | 17006351 | CONCRETE PUBLIC WORKS         | 06/30/18 | 264965 | 205.00-   |
|                          |                          |              |          |          |                               |          |        | -----     |
| SOUTHEASTERN CONCRETE CO |                          |              |          |          |                               |          |        |           |
| Sum                      |                          |              |          |          |                               |          |        | 7,715.75- |
| 00001                    | SOUTHERN FINANCIAL SYSTE | CMCHAT 6/18/ | 02018666 | 17006354 | POLICE FINES COLL.FEE         | 06/30/18 | 264966 | 208.70-   |
| 00001                    | SOUTHERN FINANCIAL SYSTE | CMCHAT2 6/1/ | 02018667 | 17006374 | POLICE FINES COLL.FEE         | 06/30/18 | 264966 | 50.10-    |
| 00001                    | SOUTHERN FINANCIAL SYSTE | CMCHAT3 6/1/ | 02018668 | 17006375 | POLICE FINES COLL.FEE         | 06/30/18 | 264966 | 837.73-   |
|                          |                          |              |          |          |                               |          |        | -----     |
| SOUTHERN FINANCIAL SYSTE |                          |              |          |          |                               |          |        |           |

[illegible]

|                                                                                             |          |        |            |
|---------------------------------------------------------------------------------------------|----------|--------|------------|
| 00001 U S POSTAL SERVICE POSTA POSTAGE PO#1 00180472 17006121 MAIL MACHINE POSTAGE          | 06/30/18 | 264990 | 15,000.00- |
|                                                                                             |          |        | -----      |
| U S POSTAL SERVICE POSTA                                                                    |          |        |            |
| Sum                                                                                         |          |        | 15,000.00- |
| 00001 UNDERWOOD OUTDOOR POWER, 59158 00180772 17006413 MOWER REPR #1 FIRE STA               | 06/30/18 | 264991 | 218.53-    |
|                                                                                             |          |        | -----      |
| UNDERWOOD OUTDOOR POWER,                                                                    |          |        |            |
| Sum                                                                                         |          |        | 218.53-    |
| 00001 UNITED FENCE COMPANY 00019047 00180235 17006163 ELEC GATE REMOTES CEMETERY            | 06/30/18 | 264992 | 42.00-     |
|                                                                                             |          |        | -----      |
| UNITED FENCE COMPANY                                                                        |          |        |            |
| Sum                                                                                         |          |        | 42.00-     |
| 00001 UNITED PARCEL SERVICE IN 00008E1Y1524 00180708 17006332 SERVS 6/1,6/7 POLICE/LATE FEE | 06/30/18 | 264993 | 36.27-     |
|                                                                                             |          |        | -----      |
| UNITED PARCEL SERVICE IN                                                                    |          |        |            |
| Sum                                                                                         |          |        | 36.27-     |
| 00001 UNITED RENTALS (NORTH AM 150201192-00 00180749 17006379 REPAY DUPLICATE CREDIT TAKEN  | 06/30/18 | 264994 | 171.00-    |
|                                                                                             |          |        | -----      |
| UNITED RENTALS (NORTH AM                                                                    |          |        |            |
| Sum                                                                                         |          |        | 171.00-    |
| 00001 UNIVERSITY TIRE & SERVIC 528490 00180499 17006197 TIRES/OIL CHG U#14683 LDC           | 06/30/18 | 264995 | 340.09-    |
|                                                                                             |          |        | -----      |
| UNIVERSITY TIRE & SERVIC                                                                    |          |        |            |
| Sum                                                                                         |          |        | 340.09-    |
| 00001 VERIZON WIRELESS 9808283766 00180488 17006173 WIRELESS SERV 6/18 POLICE               | 06/30/18 | 264999 | 2,401.84-  |
|                                                                                             |          |        | -----      |
| VERIZON WIRELESS                                                                            |          |        |            |
| Sum                                                                                         |          |        | 2,401.84-  |
| 00001 WAGE HOUR ASSESSMENTS AN CH 0018-006 00180776 17006406 CONSULTING FEES 6/18           | 06/30/18 | 265000 | 1,125.00-  |
|                                                                                             |          |        | -----      |
| WAGE HOUR ASSESSMENTS AN                                                                    |          |        |            |
| Sum                                                                                         |          |        | 1,125.00-  |
| 00001 WAL-MART STORES INC 006330 00180204 17006321 COFFEE MAKER/TV SANIT                    | 06/30/18 | 265001 | 272.97-    |
| 00001 WAL-MART STORES INC 001907 00179784 17006322 SUPP KHB MONTHLY MEETING                 | 06/30/18 | 265001 | 41.64-     |
|                                                                                             |          |        | -----      |
| WAL-MART STORES INC                                                                         |          |        |            |
| Sum                                                                                         |          |        | 314.61-    |
| 00001 WALTER, PAUL & SON WELDI 2109 00180364 17006304 FUEL TANK REPR U#20072 SANIT          | 06/30/18 | 265003 | 130.00-    |
|                                                                                             |          |        | -----      |
| WALTER, PAUL & SON WELDI                                                                    |          |        |            |
| Sum                                                                                         |          |        | 130.00-    |
| 00001 WARING OIL CO (GULFPORT) 001677693 00180567 17006362 CHEMICALS SANIT DEPT             | 06/30/18 | 265005 | 262.50-    |
|                                                                                             |          |        | -----      |
| WARING OIL CO (GULFPORT)                                                                    |          |        |            |
| Sum                                                                                         |          |        | 262.50-    |
| 00001 WARREN PAVING INC 1677 00179527 17006141 PAVING RUBY AVE MORTON ST                    | 06/30/18 | 265007 | 18,475.06- |
| 00001 WARREN PAVING INC 1678 00179527 17006142 PAVING RUBY AVE MORTON ST                    | 06/30/18 | 265007 | 37,591.13- |
| 00001 WARREN PAVING INC 10900 00180093 17006421 LIMESTONE PUBLIC WORKS                      | 06/30/18 | 265007 | 1,731.45-  |
|                                                                                             |          |        | -----      |
| WARREN PAVING INC                                                                           |          |        |            |
| Sum                                                                                         |          |        | 57,797.64- |

|                                          |                                                            |          |        |               |
|------------------------------------------|------------------------------------------------------------|----------|--------|---------------|
| 00001 WATERS INTERNATIONAL TRU 08P855750 | 00180464 17006269 REPR PTS U#12891 CEMETERY                | 06/30/18 | 265008 | 75.08-        |
|                                          |                                                            |          |        | -----         |
| WATERS INTERNATIONAL TRU                 |                                                            |          |        |               |
| Sum                                      |                                                            |          |        | 75.08-        |
| 00001 WILLIAMS, NICHOLAS                 | TRAV ADVANCE 00180770 17006401 TRAV ADV NFIP CRSE KENTUCKY | 06/30/18 | 265013 | 405.00-       |
|                                          |                                                            |          |        | -----         |
| WILLIAMS, NICHOLAS                       |                                                            |          |        |               |
| Sum                                      |                                                            |          |        | 405.00-       |
| 00001 98 WASTE LLC                       | 1309 00180532 17006192 RUBBISH DISPOSAL SANIT              | 06/30/18 | 265014 | 5,236.00-     |
| 00001 98 WASTE LLC                       | 1333 00180631 17006261 RUBBISH DISPOSAL SANIT              | 06/30/18 | 265014 | 7,070.00-     |
|                                          |                                                            |          |        | -----         |
| 98 WASTE LLC                             |                                                            |          |        |               |
| Sum                                      |                                                            |          |        | 12,306.00-    |
|                                          |                                                            |          |        | -----         |
| Sum                                      |                                                            |          |        | 1,674,465.59- |

## CITY OF HATTIESBURG

## DOCKET OF CLAIMS

Date - 06/27/18

PERIOD ENDING JUNE 30, 2018

| Vendor                         | Invoice<br>Number | Purchase<br>Order | Claims<br>Number | Item<br>Description           | Check<br>Date | Check<br>No. | Check<br>Amount |
|--------------------------------|-------------------|-------------------|------------------|-------------------------------|---------------|--------------|-----------------|
| PARKS & RECREATION FUND        |                   |                   |                  |                               |               |              |                 |
| 00002 A & R FARM AND GARDEN    | 300161            | 00180527          | 17001321         | SPRAYERS GRNDS MAINT          | 06/30/18      | 264739       | 330.00-         |
| -----                          |                   |                   |                  |                               |               |              |                 |
| A & R FARM AND GARDEN          |                   |                   |                  |                               |               |              |                 |
| Sum                            |                   |                   |                  |                               |               |              | 330.00-         |
| 00002 AGRI-AFC LLC             | 5473214           | 00180602          | 17001320         | FERTILIZER CAMERON/DAHMER     | 06/30/18      | 264742       | 382.61-         |
| 00002 AGRI-AFC LLC             | 5474035           | 00180615          | 17001366         | WEED KILLER GRNDS MAINT       | 06/30/18      | 264742       | 76.00-          |
| -----                          |                   |                   |                  |                               |               |              |                 |
| AGRI-AFC LLC                   |                   |                   |                  |                               |               |              |                 |
| Sum                            |                   |                   |                  |                               |               |              | 458.61-         |
| 00002 AT&T MOBILITY            | 287273578351      | 00180481          | 17001289         | WIRELESS SERV 5/18 PKS/REC    | 06/30/18      | 264758       | 376.68-         |
| -----                          |                   |                   |                  |                               |               |              |                 |
| AT&T MOBILITY                  |                   |                   |                  |                               |               |              |                 |
| Sum                            |                   |                   |                  |                               |               |              | 376.68-         |
| 00002 AUTO ARMATURE SERVICE IN | 12777             | 00180585          | 17001325         | BATTERY U#17580               | 06/30/18      | 264760       | 54.95-          |
| -----                          |                   |                   |                  |                               |               |              |                 |
| AUTO ARMATURE SERVICE IN       |                   |                   |                  |                               |               |              |                 |
| Sum                            |                   |                   |                  |                               |               |              | 54.95-          |
| 00002 BARHAM, BRENT KENNETH    | SPORTS SERVS      | 02018658          | 17001361         | SPORTS SUPPORT SERVICES       | 06/30/18      | 264763       | 256.00-         |
| -----                          |                   |                   |                  |                               |               |              |                 |
| BARHAM, BRENT KENNETH          |                   |                   |                  |                               |               |              |                 |
| Sum                            |                   |                   |                  |                               |               |              | 256.00-         |
| 00002 BRACEY, DENITRA L        | OFFICIAL 6/1      | 02018657          | 17001347         | OFFICIAL-ADULT SOFTBALL       | 06/30/18      | 264770       | 54.00-          |
| -----                          |                   |                   |                  |                               |               |              |                 |
| BRACEY, DENITRA L              |                   |                   |                  |                               |               |              |                 |
| Sum                            |                   |                   |                  |                               |               |              | 54.00-          |
| 00002 BRACKMAN MOWER WAREHOUSE | 39030             | 00180341          | 17001310         | REPRS U#18866 MOWER           | 06/30/18      | 264772       | 305.65-         |
| 00002 BRACKMAN MOWER WAREHOUSE | 39014             | 00180342          | 17001311         | REPR PTS U#18867 MOWER        | 06/30/18      | 264772       | 74.42-          |
| 00002 BRACKMAN MOWER WAREHOUSE | 39068             | 00180404          | 17001312         | REPRS U#19465/20232 MOWERS    | 06/30/18      | 264772       | 1,582.49-       |
| 00002 BRACKMAN MOWER WAREHOUSE | 39069             | 00180404          | 17001313         | SHARPEN BLADES/GRASS CHUTE    | 06/30/18      | 264772       | 60.00-          |
| 00002 BRACKMAN MOWER WAREHOUSE | 39067             | 00180405          | 17001314         | REPRS U#18866 MOWER           | 06/30/18      | 264772       | 233.45-         |
| 00002 BRACKMAN MOWER WAREHOUSE | 39028             | 00180343          | 17001315         | TIRE REPR U#20232 MOWER       | 06/30/18      | 264772       | 40.00-          |
| 00002 BRACKMAN MOWER WAREHOUSE | 39246             | 00180528          | 17001326         | REPRS U#19303/18866 MOWERS    | 06/30/18      | 264772       | 232.39-         |
| 00002 BRACKMAN MOWER WAREHOUSE | 39247             | 00180528          | 17001327         | SHARPEN MOWER BLADES          | 06/30/18      | 264772       | 40.00-          |
| 00002 BRACKMAN MOWER WAREHOUSE | 39272             | 00180576          | 17001328         | REPRS U#19303 MOWER           | 06/30/18      | 264772       | 2,475.00-       |
| 00002 BRACKMAN MOWER WAREHOUSE | 39283             | 00180613          | 17001367         | WEEDEATER SUPP GRNDS MAINT    | 06/30/18      | 264772       | 608.00-         |
| 00002 BRACKMAN MOWER WAREHOUSE | 39306             | 00180644          | 17001369         | REPRS U#19303 MOWER           | 06/30/18      | 264772       | 82.00-          |
| 00002 BRACKMAN MOWER WAREHOUSE | 39308             | 00180645          | 17001370         | REPRS U#20232 MOWER           | 06/30/18      | 264772       | 40.00-          |
| 00002 BRACKMAN MOWER WAREHOUSE | 39309             | 00180645          | 17001371         | LABOR CHARGE 6 REPRS          | 06/30/18      | 264772       | 120.00-         |
| -----                          |                   |                   |                  |                               |               |              |                 |
| BRACKMAN MOWER WAREHOUSE       |                   |                   |                  |                               |               |              |                 |
| Sum                            |                   |                   |                  |                               |               |              | 5,893.40-       |
| 00002 BUCKHAULTS ELECTRIC SERV | 2682              | 00177917          | 17001394         | REPR LIGHTS VARI PARKS        | 06/30/18      | 264776       | 2,500.00-       |
| 00002 BUCKHAULTS ELECTRIC SERV | 2683              | 00178733          | 17001395         | LIGHT REPR LABOR TATUM SOCCER | 06/30/18      | 264776       | 2,500.00-       |
| 00002 BUCKHAULTS ELECTRIC SERV | 2685              | 00180737          | 17001396         | REPR LIGHTS TATUM/DAHMER      | 06/30/18      | 264776       | 3,750.00-       |
| -----                          |                   |                   |                  |                               |               |              |                 |



## BUCKHAULTS ELECTRIC SERV

|       |                          |      |          |          |                               |                         |
|-------|--------------------------|------|----------|----------|-------------------------------|-------------------------|
| Sum   |                          |      |          |          |                               | 8,750.00-               |
| 00002 | BURGE EXCAVATING & GRADI | 1072 | 00180362 | 17001297 | MASON SAND/BALLFLD DIRT TATUM | 06/30/18 264777 565.00- |
|       |                          |      |          |          |                               | -----                   |

## BURGE EXCAVATING &amp; GRADI

|       |                          |              |          |          |                       |                        |
|-------|--------------------------|--------------|----------|----------|-----------------------|------------------------|
| Sum   |                          |              |          |          |                       | 565.00-                |
| 00002 | CARQUEST AUTO PARTS STOR | 14758-110701 | 00180616 | 17001376 | MOTOR OIL GRNDS MAINT | 06/30/18 264783 95.76- |
|       |                          |              |          |          |                       | -----                  |

## CARQUEST AUTO PARTS STOR

|       |                          |      |          |          |                            |                           |
|-------|--------------------------|------|----------|----------|----------------------------|---------------------------|
| Sum   |                          |      |          |          |                            | 95.76-                    |
| 00002 | CERTIFIED SPORTS TURF SE | 1129 | 00180407 | 17001372 | BALLFIELD MAINT TATUM PARK | 06/30/18 264786 4,000.00- |
|       |                          |      |          |          |                            | -----                     |

## CERTIFIED SPORTS TURF SE

|       |                              |          |          |          |                      |                            |
|-------|------------------------------|----------|----------|----------|----------------------|----------------------------|
| Sum   |                              |          |          |          |                      | 4,000.00-                  |
| 00002 | CITY OF HATTIESBURG FUND TRF | 2ND 6/18 | 02018653 | 17001304 | TRF 2ND 6/18 PAYROLL | 06/19/18 311912 89,023.80- |
|       |                              |          |          |          |                      | -----                      |

## CITY OF HATTIESBURG FUND

|       |                 |        |          |          |                          |                        |
|-------|-----------------|--------|----------|----------|--------------------------|------------------------|
| Sum   |                 |        |          |          |                          | 89,023.80-             |
| 00002 | CLEMTS HARDWARE | 120822 | 00180577 | 17001391 | FLAG STAKES TATUM SOCCER | 06/30/18 264793 11.99- |
|       |                 |        |          |          |                          | -----                  |

## CLEMTS HARDWARE

|       |          |        |          |          |                               |                           |
|-------|----------|--------|----------|----------|-------------------------------|---------------------------|
| Sum   |          |        |          |          |                               | 11.99-                    |
| 00002 | COMSOUTH | 189608 | 00179982 | 17001290 | PORTABLE RADIOS GRNDS/REC ADM | 06/30/18 264799 3,535.52- |
| 00002 | COMSOUTH | 189537 | 00180110 | 17001303 | LIFEGUARD RADIOS 6/18-7/18    | 06/30/18 264799 800.00-   |
|       |          |        |          |          |                               | -----                     |

## COMSOUTH

|       |                          |       |          |          |                           |                           |
|-------|--------------------------|-------|----------|----------|---------------------------|---------------------------|
| Sum   |                          |       |          |          |                           | 4,335.52-                 |
| 00002 | COURTNEY'S RESTAURANT EQ | 12072 | 00179385 | 17001291 | SERVICE VARI ICE MACHINES | 06/30/18 264803 1,906.86- |
|       |                          |       |          |          |                           | -----                     |

## COURTNEY'S RESTAURANT EQ

|       |               |              |          |          |                       |                         |
|-------|---------------|--------------|----------|----------|-----------------------|-------------------------|
| Sum   |               |              |          |          |                       | 1,906.86-               |
| 00002 | CURRY, GEORGE | OFFICIAL 6/1 | 02018657 | 17001355 | OFFICIAL-HHS BASEBALL | 06/30/18 264805 325.00- |
|       |               |              |          |          |                       | -----                   |

## CURRY, GEORGE

|       |                      |       |          |          |                           |                           |
|-------|----------------------|-------|----------|----------|---------------------------|---------------------------|
| Sum   |                      |       |          |          |                           | 325.00-                   |
| 00002 | DAWSON, J A & CO INC | 17335 | 00180433 | 17001392 | SWING SEATS EASTSIDE PARK | 06/30/18 264808 1,325.41- |
|       |                      |       |          |          |                           | -----                     |

## DAWSON, J A &amp; CO INC

|       |                   |        |          |          |                              |                         |
|-------|-------------------|--------|----------|----------|------------------------------|-------------------------|
| Sum   |                   |        |          |          |                              | 1,325.41-               |
| 00002 | ECONOMY SUPPLY CO | 297056 | 00180455 | 17001300 | DOOR HINGES 9TH ST BALLPARK  | 06/30/18 264815 7.90-   |
| 00002 | ECONOMY SUPPLY CO | 297133 | 00180478 | 17001309 | VARI LOCKS GRNDS MAINT DEPT  | 06/30/18 264815 219.95- |
| 00002 | ECONOMY SUPPLY CO | 297266 | 00180543 | 17001332 | BOARDS S ANTONIO PRESSEBOX   | 06/30/18 264815 34.25-  |
| 00002 | ECONOMY SUPPLY CO | 297288 | 00180417 | 17001333 | ELEC SUPP HBRG AMER PAVILION | 06/30/18 264815 60.96-  |
|       |                   |        |          |          |                              | -----                   |

## ECONOMY SUPPLY CO

|       |                      |           |          |          |                        |                         |
|-------|----------------------|-----------|----------|----------|------------------------|-------------------------|
| Sum   |                      |           |          |          |                        | 323.06-                 |
| 00002 | ELKINS WHOLESALE INC | 351493-00 | 00180611 | 17001318 | JANIT SUPP GRNDS MAINT | 06/30/18 264817 740.86- |
|       |                      |           |          |          |                        | -----                   |

## ELKINS WHOLESALE INC

|     |  |  |  |  |  |         |
|-----|--|--|--|--|--|---------|
| Sum |  |  |  |  |  | 740.86- |
|-----|--|--|--|--|--|---------|

|                                |                                                             |          |        |         |
|--------------------------------|-------------------------------------------------------------|----------|--------|---------|
| 00002 ELLIOTT, TARILYN J       | OFFICIAL 6/1 02018657 17001348 OFFICIAL-ADULT SOFTBALL      | 06/30/18 | 264818 | 54.00-  |
| -----                          |                                                             |          |        |         |
| ELLIOTT, TARILYN J             |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 54.00-  |
| 00002 ESTERS, WILLARD (BUTCH)  | OFFICIAL 6/1 02018657 17001338 OFFICIAL-ADULT SOFTBALL      | 06/30/18 | 264823 | 60.00-  |
| -----                          |                                                             |          |        |         |
| ESTERS, WILLARD (BUTCH)        |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 60.00-  |
| 00002 FEDEX OFFICE AND PRINT S | 0908378725 6 00180573 17001336 SENIOR NEWSLETTERS           | 06/30/18 | 264828 | 460.34- |
| -----                          |                                                             |          |        |         |
| FEDEX OFFICE AND PRINT S       |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 460.34- |
| 00002 FERGUSON ENTERPRISES INC | 7669392 00177066 17001293 WTR FOUNTAIN PTS TATUM SOFTBAL    | 06/30/18 | 264829 | 54.53-  |
| -----                          |                                                             |          |        |         |
| FERGUSON ENTERPRISES INC       |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 54.53-  |
| 00002 GARNER LUMLEY ELECTRIC S | 549989 00180454 17001368 ELEC SUPP 9TH ST CONCESSIONS       | 06/30/18 | 264838 | 81.32-  |
| -----                          |                                                             |          |        |         |
| GARNER LUMLEY ELECTRIC S       |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 81.32-  |
| 00002 GILLILANDS ELECTRONICS S | 66809 00180450 17001302 REDO VOICEMAIL SERV REC ADM         | 06/30/18 | 264839 | 75.00-  |
| -----                          |                                                             |          |        |         |
| GILLILANDS ELECTRONICS S       |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 75.00-  |
| 00002 GOLDEN, NICHOLAS D       | OFFICIAL 6/1 02018657 17001346 OFFICIAL-ADULT SOFTBALL      | 06/30/18 | 264842 | 60.00-  |
| -----                          |                                                             |          |        |         |
| GOLDEN, NICHOLAS D             |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 60.00-  |
| 00002 GRAVES, JEREMY           | OFFICIAL 6/1 02018657 17001352 OFFICIAL-HHS BASEBALL        | 06/30/18 | 264844 | 240.00- |
| -----                          |                                                             |          |        |         |
| GRAVES, JEREMY                 |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 240.00- |
| 00002 GRAVES, KEN              | OFFICIAL 6/1 02018657 17001353 OFFICIAL-HHS BASEBALL        | 06/30/18 | 264845 | 95.00-  |
| -----                          |                                                             |          |        |         |
| GRAVES, KEN                    |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 95.00-  |
| 00002 HOLLIMAN, DESTIN T       | SPORTS SERVS 02018658 17001364 SPORTS SUPPORT SERVICES      | 06/30/18 | 264857 | 320.00- |
| -----                          |                                                             |          |        |         |
| HOLLIMAN, DESTIN T             |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 320.00- |
| 00002 HOLLIMAN, ZARIUS         | SPORTS SERVS 02018658 17001365 SPORTS SUPPORT SERVICES      | 06/30/18 | 264858 | 320.00- |
| -----                          |                                                             |          |        |         |
| HOLLIMAN, ZARIUS               |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 320.00- |
| 00002 HUGHES SUPPLY            | S153170320.0 00180419 17001393 A/C REPR SAN ANTONIO TRAILER | 06/30/18 | 264861 | 66.34-  |
| -----                          |                                                             |          |        |         |
| HUGHES SUPPLY                  |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 66.34-  |
| 00002 HUGHES, BENJAMIN D       | OFFICIAL 6/1 02018657 17001354 OFFICIAL-HHS BASEBALL        | 06/30/18 | 264862 | 335.00- |
| -----                          |                                                             |          |        |         |
| HUGHES, BENJAMIN D             |                                                             |          |        |         |
| Sum                            |                                                             |          |        | 335.00- |

|                                |              |                                                 |          |        |            |
|--------------------------------|--------------|-------------------------------------------------|----------|--------|------------|
| 00002 INDOFF INC               | 3117845      | 00180240 17001317 OFFICE SUPP GRNDS MNT/REC ADM | 06/30/18 | 264865 | 82.96-     |
| -----                          |              |                                                 |          |        |            |
| INDOFF INC                     |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 82.96-     |
| 00002 J M H GRAPHICS           | 14137        | 00180447 17001330 LIFEGUARD TANK TOPS           | 06/30/18 | 264868 | 267.75-    |
| -----                          |              |                                                 |          |        |            |
| J M H GRAPHICS                 |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 267.75-    |
| 00002 JACKSON, ROOSEVELT III   | 773412       | 00180239 17001301 PRESSURE WASH TATUM BB CMLPX  | 06/30/18 | 264869 | 2,895.00-  |
| -----                          |              |                                                 |          |        |            |
| JACKSON, ROOSEVELT III         |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 2,895.00-  |
| 00002 JACKSON, TINA            | OFFICIAL 6/1 | 02018657 17001345 OFFICIAL-ADULT SOFTBALL       | 06/30/18 | 264870 | 60.00-     |
| -----                          |              |                                                 |          |        |            |
| JACKSON, TINA                  |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 60.00-     |
| 00002 KETTLEY, ANNETTE         | SPORTS SERVS | 02018658 17001357 SPORTS SUPPORT SERVICES       | 06/30/18 | 264876 | 48.00-     |
| -----                          |              |                                                 |          |        |            |
| KETTLEY, ANNETTE               |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 48.00-     |
| 00002 KINNEL, ISAAC L          | OFFICIAL 6/1 | 02018657 17001344 OFFICIAL-ADULT SOFTBALL       | 06/30/18 | 264878 | 120.00-    |
| -----                          |              |                                                 |          |        |            |
| KINNEL, ISAAC L                |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 120.00-    |
| 00002 LANCASTER'S MACHINE & WE | 23603        | 00180579 17001329 REPRS U#18554 SAND SPREADER   | 06/30/18 | 264883 | 300.00-    |
| -----                          |              |                                                 |          |        |            |
| LANCASTER'S MACHINE & WE       |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 300.00-    |
| 00002 LIBERTY FLAG & SPECIALTY | 06180007     | 00180056 17001299 AMERICAN FLAGS CITY WIDE USE  | 06/30/18 | 264888 | 586.95-    |
| -----                          |              |                                                 |          |        |            |
| LIBERTY FLAG & SPECIALTY       |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 586.95-    |
| 00002 MCELHANEY PLUMBING INC   | 268911       | 00180607 17001324 REPR PTS CE ROY POOL          | 06/30/18 | 264895 | 49.35-     |
| -----                          |              |                                                 |          |        |            |
| MCELHANEY PLUMBING INC         |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 49.35-     |
| 00002 MORGAN, MICHAEL D        | OFFICIAL 6/1 | 02018657 17001349 OFFICIAL-HHS BASEBALL         | 06/30/18 | 264906 | 95.00-     |
| -----                          |              |                                                 |          |        |            |
| MORGAN, MICHAEL D              |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 95.00-     |
| 00002 MORRIS, GEORGE T         | OFFICIAL 6/1 | 02018657 17001339 OFFICIAL-ADULT SOFTBALL       | 06/30/18 | 264907 | 60.00-     |
| -----                          |              |                                                 |          |        |            |
| MORRIS, GEORGE T               |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 60.00-     |
| 00002 MS POWER COMPANY         | 6/18 PKS/REC | 00201818 17001385 MNTHLY ELEC-PARKS & REC       | 06/30/18 | 264910 | 14,559.73- |
| 00002 MS POWER COMPANY         | 79628-33019  | 00180761 17001389 ELEC SERV SULLIVAN PK PAVILN  | 06/30/18 | 264910 | 2,755.69-  |
| -----                          |              |                                                 |          |        |            |
| MS POWER COMPANY               |              |                                                 |          |        |            |
| Sum                            |              |                                                 |          |        | 17,315.42- |
| 00002 NEWELL PAPER COMPANY     | 4030096      | 00180329 17001305 COPY PAPER REC ADM/SIGLER     | 06/30/18 | 264914 | 386.10-    |
| 00002 NEWELL PAPER COMPANY     | 4030165      | 00180420 17001319 JANIT SUPP GRNDS MAINT        | 06/30/18 | 264914 | 52.01-     |
| 00002 NEWELL PAPER COMPANY     | 4030762      | 00180612 17001390 WASP SPRAY GRNDS MAINT        | 06/30/18 | 264914 | 288.00-    |

|                          |                          |              |          |          |                              |                 |           |
|--------------------------|--------------------------|--------------|----------|----------|------------------------------|-----------------|-----------|
|                          |                          |              |          |          |                              |                 | -----     |
| NEWELL PAPER COMPANY     |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 726.11-   |
| 00002                    | PHILLIPS , FORREST C SR  | OFFICIAL 6/1 | 02018657 | 17001351 | OFFICIAL-HHS BASEBALL        | 06/30/18 264925 | 190.00-   |
|                          |                          |              |          |          |                              |                 | -----     |
| PHILLIPS , FORREST C SR  |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 190.00-   |
| 00002                    | PHILLIPS BARK PROCESSING | 126831       | 00180080 | 17001307 | MULCH CITY WIDE USE          | 06/30/18 264926 | 1,690.00- |
| 00002                    | PHILLIPS BARK PROCESSING | 126855       | 00180080 | 17001308 | MULCH CITY WIDE USE          | 06/30/18 264926 | 1,410.00- |
|                          |                          |              |          |          |                              |                 | -----     |
| PHILLIPS BARK PROCESSING |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 3,100.00- |
| 00002                    | PINE BELT TROPHY         | PO#179354 5/ | 00179354 | 17001316 | TROPHIES SOFTBALL LEAGUE     | 06/30/18 264929 | 325.00-   |
|                          |                          |              |          |          |                              |                 | -----     |
| PINE BELT TROPHY         |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 325.00-   |
| 00002                    | PIONEER MANUFACTURING CO | INV679718    | 00179940 | 17001294 | PAINT STRIPE ALL BALLFIELDS  | 06/30/18 264930 | 282.00-   |
|                          |                          |              |          |          |                              |                 | -----     |
| PIONEER MANUFACTURING CO |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 282.00-   |
| 00002                    | PLAY IT AGAIN SPORTS     | PO#178529 6/ | 00178529 | 17001397 | SOFTBALL JERSEYS FAST PITCH  | 06/30/18 264933 | 600.00-   |
|                          |                          |              |          |          |                              |                 | -----     |
| PLAY IT AGAIN SPORTS     |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 600.00-   |
| 00002                    | POWE AQUATICS, LLC, W.A. | POWEAQUATICS | 00180479 | 17001292 | LIFEGUARD TRAINING 5/18      | 06/30/18 264935 | 1,500.00- |
|                          |                          |              |          |          |                              |                 | -----     |
| POWE AQUATICS, LLC, W.A. |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 1,500.00- |
| 00002                    | POWELL, RANDY            | SPORTS SERVS | 02018658 | 17001375 | SPORTS SUPPORT SERVICES      | 06/30/18 264936 | 96.00-    |
|                          |                          |              |          |          |                              |                 | -----     |
| POWELL, RANDY            |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 96.00-    |
| 00002                    | PRICE, MATTHEW R         | SPORTS SERVS | 02018658 | 17001363 | SPORTS SUPPORT SERVICES      | 06/30/18 264938 | 40.00-    |
|                          |                          |              |          |          |                              |                 | -----     |
| PRICE, MATTHEW R         |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 40.00-    |
| 00002                    | ROBINSON ELECTRIC SUPPLY | 2899-418545  | 00180418 | 17001334 | ELEC SUPP HBRG AMER PAVILION | 06/30/18 264944 | 738.98-   |
|                          |                          |              |          |          |                              |                 | -----     |
| ROBINSON ELECTRIC SUPPLY |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 738.98-   |
| 00002                    | SANDERS, BRENASKA        | OFFICIAL 6/1 | 02018657 | 17001350 | OFFICIAL-HHS BASEBALL        | 06/30/18 264948 | 285.00-   |
|                          |                          |              |          |          |                              |                 | -----     |
| SANDERS, BRENASKA        |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 285.00-   |
| 00002                    | SIGNS FIRST              | H-64303      | 00180106 | 17001306 | TABLECLOTH PKS/REC DEPT      | 06/30/18 264958 | 131.16-   |
|                          |                          |              |          |          |                              |                 | -----     |
| SIGNS FIRST              |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 131.16-   |
| 00002                    | SMITH, CARLTON L         | OFFICIAL 6/1 | 02018657 | 17001342 | OFFICIAL-ADULT SOFTBALL      | 06/30/18 264959 | 120.00-   |
|                          |                          |              |          |          |                              |                 | -----     |
| SMITH, CARLTON L         |                          |              |          |          |                              |                 |           |
| Sum                      |                          |              |          |          |                              |                 | 120.00-   |

|                                |              |                                                 |          |        |           |
|--------------------------------|--------------|-------------------------------------------------|----------|--------|-----------|
| 00002 SMITH, JIM SERVICES      | 88717        | 00180558 17001335 REPR ICE MACH TATUM TENNIS    | 06/30/18 | 264961 | 737.44-   |
|                                |              |                                                 |          |        | -----     |
| SMITH, JIM SERVICES            |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 737.44-   |
| 00002 SMITH, JOSH              | OFFICIAL 6/1 | 02018657 17001356 OFFICIAL-HHS BASEBALL         | 06/30/18 | 264962 | 235.00-   |
|                                |              |                                                 |          |        | -----     |
| SMITH, JOSH                    |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 235.00-   |
| 00002 SOLAR SUPPLY INC         | 3403938      | 00180180 17001298 A/C MINISPLIT REMOTE          | 06/30/18 | 264963 | 25.86-    |
| 00002 SOLAR SUPPLY INC         | 3404199      | 00180459 17001322 A/C SUPP S ANTONIO TRAILER    | 06/30/18 | 264963 | 47.28-    |
| 00002 SOLAR SUPPLY INC         | 3404146      | 00180575 17001323 A/C REPR PTS S ANTONIO FIELD  | 06/30/18 | 264963 | 57.29-    |
|                                |              |                                                 |          |        | -----     |
| SOLAR SUPPLY INC               |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 130.43-   |
| 00002 SOUTHERN MS PINE STRAW   | 11347        | 00180536 17001331 PINE STRAW TATUM BASEBALL     | 06/30/18 | 264967 | 165.00-   |
|                                |              |                                                 |          |        | -----     |
| SOUTHERN MS PINE STRAW         |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 165.00-   |
| 00002 SOUTHERN ON SITE STORAGE | 60499        | 00180304 17001386 PORTALETTS DAHMER JUNETEENTH  | 06/30/18 | 264968 | 1,020.00- |
| 00002 SOUTHERN ON SITE STORAGE | 60500        | 00180304 17001387 HAND WASH TOWN SQ BEER FESTVL | 06/30/18 | 264968 | 235.00-   |
| 00002 SOUTHERN ON SITE STORAGE | 60501        | 00180304 17001388 CLEANING/HAND WASH STA TS PK  | 06/30/18 | 264968 | 265.00-   |
|                                |              |                                                 |          |        | -----     |
| SOUTHERN ON SITE STORAGE       |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 1,520.00- |
| 00002 SOUTHERN TIRE MART #9 (M | 9031932      | 00180039 17001295 TIRE REPR U#9621 TRUCK        | 06/30/18 | 264970 | 90.65-    |
|                                |              |                                                 |          |        | -----     |
| SOUTHERN TIRE MART #9 (M       |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 90.65-    |
| 00002 SPIRE ENERGY             | 6/18 PKS/REC | 00201818 17001384 MNTHLY GAS-PARKS & REC        | 06/30/18 | 264974 | 24.90-    |
|                                |              |                                                 |          |        | -----     |
| SPIRE ENERGY                   |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 24.90-    |
| 00002 TERRELL, WINSTON         | OFFICIAL 6/1 | 02018657 17001343 OFFICIAL-ADULT SOFTBALL       | 06/30/18 | 264981 | 180.00-   |
|                                |              |                                                 |          |        | -----     |
| TERRELL, WINSTON               |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 180.00-   |
| 00002 TROTTER, COREY           | OFFICIAL 6/1 | 02018657 17001340 OFFICIAL-ADULT SOFTBALL       | 06/30/18 | 264985 | 60.00-    |
|                                |              |                                                 |          |        | -----     |
| TROTTER, COREY                 |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 60.00-    |
| 00002 TROTTER, JAMES C JR      | OFFICIAL 6/1 | 02018657 17001341 OFFICIAL-ADULT SOFTBALL       | 06/30/18 | 264986 | 120.00-   |
|                                |              |                                                 |          |        | -----     |
| TROTTER, JAMES C JR            |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 120.00-   |
| 00002 TUMEY, ADAM J            | SPORTS SERVS | 02018658 17001362 SPORTS SUPPORT SERVICES       | 06/30/18 | 264988 | 96.00-    |
|                                |              |                                                 |          |        | -----     |
| TUMEY, ADAM J                  |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 96.00-    |
| 00002 VARNADO, ALEXANDRIA      | SPORTS SERVS | 02018658 17001359 SPORTS SUPPORT SERVICES       | 06/30/18 | 264996 | 72.00-    |
|                                |              |                                                 |          |        | -----     |
| VARNADO, ALEXANDRIA            |              |                                                 |          |        |           |
| Sum                            |              |                                                 |          |        | 72.00-    |

|                           |                                                        |          |        |             |
|---------------------------|--------------------------------------------------------|----------|--------|-------------|
| 00002 VARNADO, UNDRA      | SPORTS SERVS 02018658 17001360 SPORTS SUPPORT SERVICES | 06/30/18 | 264997 | 120.00-     |
|                           |                                                        |          |        | -----       |
| VARNADO, UNDRA            |                                                        |          |        |             |
| Sum                       |                                                        |          |        | 120.00-     |
| 00002 VASQUEZ, LINDA M    | OFFICIAL 6/1 02018657 17001337 OFFICIAL-ADULT SOFTBALL | 06/30/18 | 264998 | 60.00-      |
|                           |                                                        |          |        | -----       |
| VASQUEZ, LINDA M          |                                                        |          |        |             |
| Sum                       |                                                        |          |        | 60.00-      |
| 00002 WAL-MART STORES INC | 003689 00180097 17001373 LIFEGUARD SUPPLIES            | 06/30/18 | 265001 | 462.38-     |
| 00002 WAL-MART STORES INC | 005708 00180154 17001374 DODGEBALL CHAMPIONSHIP SUPP   | 06/30/18 | 265001 | 24.89-      |
| 00002 WAL-MART STORES INC | 009178 00179978 17001377 PKS/REC SUMMER CAMP SUPPLIES  | 06/30/18 | 265001 | 1,093.08-   |
| 00002 WAL-MART STORES INC | 000920 00179978 17001378 PKS/REC SUMMER CAMP SUPPLIES  | 06/30/18 | 265001 | 443.42-     |
| 00002 WAL-MART STORES INC | 005519 00179978 17001379 PKS/REC SUMMER CAMP SUPPLIES  | 06/30/18 | 265001 | 25.44-      |
| 00002 WAL-MART STORES INC | 007628 00179978 17001380 PKS/REC SUMMER CAMP SUPPLIES  | 06/30/18 | 265001 | 75.12-      |
| 00002 WAL-MART STORES INC | 006061 00179978 17001381 CREDIT                        | 06/30/18 | 265001 | 31.95       |
| 00002 WAL-MART STORES INC | 006113 00179978 17001382 CREDIT                        | 06/30/18 | 265001 | 31.95       |
| 00002 WAL-MART STORES INC | 004051 00179978 17001383 PKS/REC SUMMER CAMP SUPPLIES  | 06/30/18 | 265001 | 32.07-      |
|                           |                                                        |          |        | -----       |
| WAL-MART STORES INC       |                                                        |          |        |             |
| Sum                       |                                                        |          |        | 2,092.50-   |
|                           |                                                        |          |        | -----       |
| Sum                       |                                                        |          |        | 156,767.03- |

## CITY OF HATTIESBURG

## DOCKET OF CLAIMS

Date - 06/27/18

PERIOD ENDING JUNE 30, 2018

| Vendor                         | Invoice<br>Number | Purchase<br>Order | Claims<br>Number | Item<br>Description          | Check<br>Date | Check<br>No. | Check<br>Amount |
|--------------------------------|-------------------|-------------------|------------------|------------------------------|---------------|--------------|-----------------|
| HATT.MUNICIPAL FIRE PROTECTION |                   |                   |                  |                              |               |              |                 |
| 00005 EMERGENCY EQUIPMENT PROF | 435331            | 00179482          | 17000100         | BRAKE REPR PTS U#15491       | 06/30/18      | 264819       | 2,523.28-       |
| 00005 EMERGENCY EQUIPMENT PROF | 435313            | 00179482          | 17000101         | CREDIT PO#178364             | 06/30/18      | 264819       | 73.47           |
|                                |                   |                   |                  |                              |               |              | -----           |
| EMERGENCY EQUIPMENT PROF       |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 2,449.81-       |
| 00005 FERRARA FIRE APPARATUS I | INV133889         | 00179032          | 17000091         | TOOLS U#21919 ADDL PO#174567 | 06/30/18      | 264830       | 178.00-         |
| 00005 FERRARA FIRE APPARATUS I | INV133932         | 00179032          | 17000092         | TOOLS U#21919 ADDL PO#174567 | 06/30/18      | 264830       | 675.60-         |
| 00005 FERRARA FIRE APPARATUS I | INV133933         | 00179032          | 17000093         | TOOLS U#21919 ADDL PO#174567 | 06/30/18      | 264830       | 517.87-         |
| 00005 FERRARA FIRE APPARATUS I | INV133985         | 00179032          | 17000094         | TOOLS U#21919 ADDL PO#174567 | 06/30/18      | 264830       | 570.00-         |
| 00005 FERRARA FIRE APPARATUS I | INV134014         | 00179032          | 17000095         | TOOLS U#21919 ADDL PO#174567 | 06/30/18      | 264830       | 906.75-         |
| 00005 FERRARA FIRE APPARATUS I | INV134041         | 00179032          | 17000096         | TOOLS U#21919 ADDL PO#174567 | 06/30/18      | 264830       | 1,281.00-       |
| 00005 FERRARA FIRE APPARATUS I | INV134074         | 00179032          | 17000097         | TOOLS U#21919 ADDL PO#174567 | 06/30/18      | 264830       | 128.00-         |
| 00005 FERRARA FIRE APPARATUS I | INV134076         | 00179032          | 17000098         | TOOLS U#21919 ADDL PO#174567 | 06/30/18      | 264830       | 2,595.00-       |
| 00005 FERRARA FIRE APPARATUS I | INV134205         | 00179032          | 17000099         | TOOLS U#21919 ADDL PO#174567 | 06/30/18      | 264830       | 680.41-         |
|                                |                   |                   |                  |                              |               |              | -----           |
| FERRARA FIRE APPARATUS I       |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 7,532.63-       |
| 00005 NAPA AUTO PARTS          | 577167            | 00180149          | 17000083         | REPR PTS U#14694             | 06/30/18      | 264912       | 23.51-          |
| 00005 NAPA AUTO PARTS          | 5930-577601       | 00180416          | 17000084         | REPR PTS U#15064             | 06/30/18      | 264912       | 233.40-         |
| 00005 NAPA AUTO PARTS          | 5930-577608       | 00180424          | 17000085         | BATTERIES U#16965            | 06/30/18      | 264912       | 220.94-         |
| 00005 NAPA AUTO PARTS          | 5930-576913       | 00180424          | 17000086         | CREDIT PO#179983             | 06/30/18      | 264912       | 19.18           |
| 00005 NAPA AUTO PARTS          | 5930-577865       | 00180520          | 17000090         | REPR PTS U#13560             | 06/30/18      | 264912       | 156.51-         |
|                                |                   |                   |                  |                              |               |              | -----           |
| NAPA AUTO PARTS                |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 615.18-         |
| 00005 SUNBELT FIRE INC         | 312079            | 00180386          | 17000089         | REPR PTS U#15064             | 06/30/18      | 264979       | 338.76-         |
|                                |                   |                   |                  |                              |               |              | -----           |
| SUNBELT FIRE INC               |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 338.76-         |
| 00005 TRUSTMARK NATIONAL BANK/ | A/C#27335025      | 02018647          | 17000088         | FIRE TRUCK LEASE NOTE #40263 | 06/19/18      | 22126        | 5,836.57-       |
|                                |                   |                   |                  |                              |               |              | -----           |
| TRUSTMARK NATIONAL BANK/       |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 5,836.57-       |
|                                |                   |                   |                  |                              |               |              | -----           |
| Sum                            |                   |                   |                  |                              |               |              | 16,772.95-      |

## CITY OF HATTIESBURG

## DOCKET OF CLAIMS

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PERIOD ENDING JUNE 30, 2018

| Vendor                         | Invoice<br>Number | Purchase<br>Order | Claims<br>Number | Item<br>Description | Check<br>Date | Check<br>No. | Check<br>Amount |
|--------------------------------|-------------------|-------------------|------------------|---------------------|---------------|--------------|-----------------|
| -----                          |                   |                   |                  |                     |               |              |                 |
| PAYROLL FUND                   |                   |                   |                  |                     |               |              |                 |
| 00006 SOUTHERN FINANCIAL SYSTE | 9891              | 02018136          | 17000427         | GARNISHMENT         | 06/21/18      | 112822       | 84.90-          |
|                                |                   |                   |                  |                     |               |              | -----           |
| SOUTHERN FINANCIAL SYSTE       |                   |                   |                  |                     |               |              | 84.90-          |
| Sum                            |                   |                   |                  |                     |               |              |                 |
| 00006 STATE DISBURSEMENT UNIT  | 1001              | 02018129          | 17000414         | CHILD SUPPORT       | 06/21/18      | 112809       | 234.00-         |
|                                |                   |                   |                  |                     |               |              | -----           |
| STATE DISBURSEMENT UNIT        |                   |                   |                  |                     |               |              | 234.00-         |
| Sum                            |                   |                   |                  |                     |               |              |                 |
|                                |                   |                   |                  |                     |               |              | -----           |
| Sum                            |                   |                   |                  |                     |               |              | 318.90-         |



## CITY OF HATTIESBURG

## DOCKET OF CLAIMS

Date - 06/27/18

PERIOD ENDING JUNE 30, 2018

| Vendor                         | Invoice<br>Number | Purchase<br>Order | Claims<br>Number | Item<br>Description          | Check<br>Date | Check<br>No. | Check<br>Amount |
|--------------------------------|-------------------|-------------------|------------------|------------------------------|---------------|--------------|-----------------|
| WATER & SEWER OPERATION/MAINT. |                   |                   |                  |                              |               |              |                 |
| 00009 AT&T MOBILITY            | 287273578351      | 00180481          | 17001272         | WIRELESS SERV 5/18 W&SO&M    | 06/30/18      | 264758       | 547.27-         |
| 00009 AT&T MOBILITY            | 287273861504      | 00180474          | 17001273         | GPS TRACKING 5/18 W&SO&M     | 06/30/18      | 264758       | 332.52-         |
| -----                          |                   |                   |                  |                              |               |              |                 |
| AT&T MOBILITY                  |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 879.79-         |
| 00009 BONNER ANALYTICAL TESTIN | 65256             | 00180462          | 17001289         | TESTING 1/18 NORTH LAGOON    | 06/30/18      | 264768       | 150.75-         |
| 00009 BONNER ANALYTICAL TESTIN | 65290             | 00180462          | 17001290         | TESTING 2/18 NORTH LAGOON    | 06/30/18      | 264768       | 261.50-         |
| 00009 BONNER ANALYTICAL TESTIN | 65349             | 00180462          | 17001291         | TESTING 2/18 NORTH LAGOON    | 06/30/18      | 264768       | 80.25-          |
| 00009 BONNER ANALYTICAL TESTIN | 65577             | 00180462          | 17001292         | TESTING 3/18 NORTH LAGOON    | 06/30/18      | 264768       | 452.75-         |
| 00009 BONNER ANALYTICAL TESTIN | 65348             | 00180462          | 17001293         | NPDES MONITORING 2/18        | 06/30/18      | 264768       | 885.82-         |
| 00009 BONNER ANALYTICAL TESTIN | 66199             | 00180497          | 17001295         | REPEAT 5/18 SOUTH LAGOON     | 06/30/18      | 264768       | 1,034.47-       |
| 00009 BONNER ANALYTICAL TESTIN | 66245             | 00180588          | 17001308         | TESTS 6/18 NORTH LAGOON      | 06/30/18      | 264768       | 261.50-         |
| -----                          |                   |                   |                  |                              |               |              |                 |
| BONNER ANALYTICAL TESTIN       |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 3,127.04-       |
| 00009 BOURNE BROTHERS PRINTING | 65664             | 00180318          | 17001345         | 2017 DRINKING WATER REPORT   | 06/30/18      | 264769       | 750.00-         |
| -----                          |                   |                   |                  |                              |               |              |                 |
| BOURNE BROTHERS PRINTING       |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 750.00-         |
| 00009 CENTRAL PIPE SUPPLY INC  | S100138711.0      | 00179947          | 17001274         | REPR METER READERS/TOOLS     | 06/30/18      | 264784       | 400.00-         |
| 00009 CENTRAL PIPE SUPPLY INC  | S10014250.00      | 00179947          | 17001275         | REPR METER READER HAND TOOLS | 06/30/18      | 264784       | 51.00-          |
| 00009 CENTRAL PIPE SUPPLY INC  | S100142580.0      | 00179947          | 17001276         | REPR METER READER HAND TOOLS | 06/30/18      | 264784       | 249.00-         |
| -----                          |                   |                   |                  |                              |               |              |                 |
| CENTRAL PIPE SUPPLY INC        |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 700.00-         |
| 00009 CINTAS CORPORATION #J66  | J66590648         | 00180439          | 17001277         | UNIFORMS 6/11 TRANS          | 06/30/18      | 264789       | 71.00-          |
| 00009 CINTAS CORPORATION #J66  | J66590649         | 00180439          | 17001278         | MOP/MAT 6/11 PLANT           | 06/30/18      | 264789       | 13.93-          |
| 00009 CINTAS CORPORATION #J66  | J66590648         | 00180439          | 17001279         | UNIFORMS 6/11 PLANT          | 06/30/18      | 264789       | 46.87-          |
| 00009 CINTAS CORPORATION #J66  | J66590648         | 00180439          | 17001280         | UNIFORMS 6/11 SEWER          | 06/30/18      | 264789       | 43.02-          |
| 00009 CINTAS CORPORATION #J66  | J66590648         | 00180439          | 17001281         | UNIFORMS 6/11 LAGOON         | 06/30/18      | 264789       | 25.87-          |
| 00009 CINTAS CORPORATION #J66  | J66591861         | 00180530          | 17001296         | UNIFORMS 6/18 TRANS          | 06/30/18      | 264789       | 71.00-          |
| 00009 CINTAS CORPORATION #J66  | J66591862         | 00180530          | 17001297         | MOP/MAT 6/18 PLANT           | 06/30/18      | 264789       | 13.93-          |
| 00009 CINTAS CORPORATION #J66  | J66591861         | 00180530          | 17001298         | UNIFORMS 6/18 PLANT          | 06/30/18      | 264789       | 46.87-          |
| 00009 CINTAS CORPORATION #J66  | J66591861         | 00180530          | 17001299         | UNIFORMS 6/18 SEWER          | 06/30/18      | 264789       | 43.02-          |
| 00009 CINTAS CORPORATION #J66  | J66591861         | 00180530          | 17001300         | UNIFORMS 6/18 LAGOON         | 06/30/18      | 264789       | 25.87-          |
| -----                          |                   |                   |                  |                              |               |              |                 |
| CINTAS CORPORATION #J66        |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 401.38-         |
| 00009 CITY OF HATTIESBURG FUND | TRF 2ND 6/18      | 02018653          | 17001301         | TRF 2ND 6/18 PAYROLL         | 06/19/18      | 22125        | 96,888.19-      |
| -----                          |                   |                   |                  |                              |               |              |                 |
| CITY OF HATTIESBURG FUND       |                   |                   |                  |                              |               |              |                 |
| Sum                            |                   |                   |                  |                              |               |              | 96,888.19-      |
| 00009 D P C ENTERPRISES LP     | 212001209-18      | 00178349          | 17001340         | CHEMICALS WTR PLT #2         | 06/30/18      | 264806       | 1,122.00-       |
| 00009 D P C ENTERPRISES LP     | 212001210-18      | 00178349          | 17001341         | CHEMICALS SOUTH LAGOON       | 06/30/18      | 264806       | 3,656.00-       |
| 00009 D P C ENTERPRISES LP     | 212001211-18      | 00178349          | 17001342         | CHEMICALS WTR PLT #1         | 06/30/18      | 264806       | 748.00-         |

|                          |                          |              |          |          |                               |          |        |            |
|--------------------------|--------------------------|--------------|----------|----------|-------------------------------|----------|--------|------------|
|                          |                          |              |          |          |                               |          |        | -----      |
| D P C ENTERPRISES LP     |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 5,526.00-  |
| 00009                    | DOLEAC ELECTRIC CO INC   | TCS-X1       | 00179976 | 17001314 | GENERATOR MNT TURTLE CREEK    | 06/30/18 | 264809 | 1,309.00-  |
|                          |                          |              |          |          |                               |          |        | -----      |
| DOLEAC ELECTRIC CO INC   |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 1,309.00-  |
| 00009                    | EATON, ALVIN K (PETTY CA | PETTY CASH 5 | 00180637 | 17001306 | PETTY CASH 5/18 W&SO&M        | 06/30/18 | 264813 | 119.31-    |
|                          |                          |              |          |          |                               |          |        | -----      |
| EATON, ALVIN K (PETTY CA |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 119.31-    |
| 00009                    | EMPIRE TRUCK SALES (H'BU | RE006028018: | 00179705 | 17001304 | REPRS U#13176 SEWER           | 06/30/18 | 264820 | 278.32-    |
|                          |                          |              |          |          |                               |          |        | -----      |
| EMPIRE TRUCK SALES (H'BU |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 278.32-    |
| 00009                    | EQUIPMENT INC            | 165502053    | 00180410 | 17001347 | REPRS U#20378 MINI EXCAVATOR  | 06/30/18 | 264822 | 3,078.81-  |
|                          |                          |              |          |          |                               |          |        | -----      |
| EQUIPMENT INC            |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 3,078.81-  |
| 00009                    | GILLILANDS ELECTRONICS S | 66862        | 00180736 | 17001315 | ALARM 7-10/18 WTR BILL OFFICE | 06/30/18 | 264839 | 90.00-     |
|                          |                          |              |          |          |                               |          |        | -----      |
| GILLILANDS ELECTRONICS S |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 90.00-     |
| 00009                    | K & K TRUCK-TRAILER PART | 66800        | 00172394 | 17001343 | PINTLE RINGS TRANS TRAILER    | 06/30/18 | 264875 | 181.12-    |
| 00009                    | K & K TRUCK-TRAILER PART | 68372        | 00179643 | 17001344 | AXLE/RIM REPR U#18556 TRANS   | 06/30/18 | 264875 | 813.50-    |
| 00009                    | K & K TRUCK-TRAILER PART | 66238        | 00170362 | 17001346 | LUG RIMS U#19819 SEWER        | 06/30/18 | 264875 | 97.00-     |
|                          |                          |              |          |          |                               |          |        | -----      |
| K & K TRUCK-TRAILER PART |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 1,091.62-  |
| 00009                    | L & A CONTRACTING CO     | 483-110      | 00180610 | 17001309 | AERATOR MNT 6/4-17 LAGOONS    | 06/30/18 | 264879 | 46,684.29- |
|                          |                          |              |          |          |                               |          |        | -----      |
| L & A CONTRACTING CO     |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 46,684.29- |
| 00009                    | MILLS & SCANLON, P.A.    | 1292-0006M S | 00180699 | 17001316 | SERVS PETAL SEWER RATES       | 06/30/18 | 264899 | 300.00-    |
| 00009                    | MILLS & SCANLON, P.A.    | 1292-0011M S | 00180699 | 17001317 | SERVS SEWER CONTRACTS         | 06/30/18 | 264899 | 168.00-    |
|                          |                          |              |          |          |                               |          |        | -----      |
| MILLS & SCANLON, P.A.    |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 468.00-    |
| 00009                    | MS POWER COMPANY         | 6/18 W&SO&M  | 00201818 | 17001337 | MNTHLY ELEC-W&SO&M            | 06/30/18 | 264910 | 81,084.47- |
|                          |                          |              |          |          |                               |          |        | -----      |
| MS POWER COMPANY         |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 81,084.47- |
| 00009                    | NEWELL PAPER COMPANY     | 4029848      | 00180119 | 17001282 | JANIT SUPP WTR PLANT          | 06/30/18 | 264914 | 430.88-    |
| 00009                    | NEWELL PAPER COMPANY     | 4030413      | 00180489 | 17001312 | WORK GLOVES SEWER DEPT        | 06/30/18 | 264914 | 600.00-    |
|                          |                          |              |          |          |                               |          |        | -----      |
| NEWELL PAPER COMPANY     |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 1,030.88-  |
| 00009                    | NORTH LAMAR WATER ASSN   | SEWER BILLIN | 00180599 | 17001307 | SEWER BILLING 6/18            | 06/30/18 | 264915 | 139.00-    |
|                          |                          |              |          |          |                               |          |        | -----      |
| NORTH LAMAR WATER ASSN   |                          |              |          |          |                               |          |        |            |
| Sum                      |                          |              |          |          |                               |          |        | 139.00-    |

|                                            |                                                 |          |        |            |
|--------------------------------------------|-------------------------------------------------|----------|--------|------------|
| 00009 PEARL RIVER VALLEY EPA ( 6/18 W&SO&M | 00201818 17001336 MNTHLY 6/18 PUBLIC SERVICES   | 06/30/18 | 264923 | 165.48-    |
|                                            |                                                 |          |        | -----      |
| PEARL RIVER VALLEY EPA (                   |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 165.48-    |
| 00009 PHILLIPS CAR CARE CENTER 01902       | 00178171 17001302 REPRS U#13080 TRANS           | 06/30/18 | 264927 | 251.90-    |
| 00009 PHILLIPS CAR CARE CENTER 01899       | 00178172 17001305 REPRS U#13513 SEWER           | 06/30/18 | 264927 | 84.00-     |
|                                            |                                                 |          |        | -----      |
| PHILLIPS CAR CARE CENTER                   |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 335.90-    |
| 00009 RJM MCQUEEN CONTRACTING 1556         | 00180448 17001283 SEWER REPR E 10TH/ATLANTS     | 06/30/18 | 264943 | 5,941.50-  |
| 00009 RJM MCQUEEN CONTRACTING 1557         | 00180448 17001284 SEWER REPR O'FERRAL/S 28TH    | 06/30/18 | 264943 | 14,046.50- |
| 00009 RJM MCQUEEN CONTRACTING 1558         | 00180448 17001285 SEWER REPR MAMIE/S 19TH       | 06/30/18 | 264943 | 13,667.40- |
| 00009 RJM MCQUEEN CONTRACTING 1559         | 00180448 17001286 SEWER REPR SHADOWWOOD         | 06/30/18 | 264943 | 23,491.50- |
| 00009 RJM MCQUEEN CONTRACTING 1560         | 00180448 17001287 SEWER REPR JM TATUM/RUNNELS   | 06/30/18 | 264943 | 5,910.00-  |
| 00009 RJM MCQUEEN CONTRACTING 1561         | 00180448 17001288 SEWER REPR DIXIE PINE/JAMES   | 06/30/18 | 264943 | 4,605.00-  |
|                                            |                                                 |          |        | -----      |
| RJM MCQUEEN CONTRACTING                    |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 67,661.90- |
| 00009 RYAN MOTORS INC 268264               | 00179718 17001303 REPRS U#20027 TRANS           | 06/30/18 | 264947 | 986.13-    |
| 00009 RYAN MOTORS INC 267583 (A)           | 00179262 17001310 REPRS U#14712 TRANS DUMPTRUCK | 06/30/18 | 264947 | 4,505.94-  |
| 00009 RYAN MOTORS INC 267583 (B)           | 00179825 17001311 ADDL AMT DUE PO#179262        | 06/30/18 | 264947 | 185.18-    |
|                                            |                                                 |          |        | -----      |
| RYAN MOTORS INC                            |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 5,677.25-  |
| 00009 SANFORD, JOHN L JR INC 50854         | 00180187 17001313 TOPSOIL SEWER DEPT            | 06/30/18 | 264949 | 1,600.00-  |
|                                            |                                                 |          |        | -----      |
| SANFORD, JOHN L JR INC                     |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 1,600.00-  |
| 00009 SECURITY BLANKET 110503              | 00180533 17001294 SERV CALL RESET PLANT CAMERA  | 06/30/18 | 264951 | 75.00-     |
|                                            |                                                 |          |        | -----      |
| SECURITY BLANKET                           |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 75.00-     |
| 00009 SHERWIN-WILLIAMS COMPANY 5843-7      | 00180710 17001338 PAINT SUPP WTR BILLING OFFICE | 06/30/18 | 264956 | 72.24-     |
|                                            |                                                 |          |        | -----      |
| SHERWIN-WILLIAMS COMPANY                   |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 72.24-     |
| 00009 SOUTHERN PINE ELECTRIC P 6/18 W&SO&M | 00201815 17001318 MNTHLY 6/18 PUBLIC SERVICES   | 06/30/18 | 264969 | 749.64-    |
|                                            |                                                 |          |        | -----      |
| SOUTHERN PINE ELECTRIC P                   |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 749.64-    |
| 00009 SPIRE ENERGY 6/18 W&SO&M             | 00201818 17001319 MNTHLY GAS-W&SO&M             | 06/30/18 | 264974 | 49.80-     |
|                                            |                                                 |          |        | -----      |
| SPIRE ENERGY                               |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 49.80-     |
| 00009 TRI STATE CHLORINATION 1843          | 00180496 17001339 CHLORIINATOR REPR PTS WTR PLT | 06/30/18 | 264984 | 243.00-    |
|                                            |                                                 |          |        | -----      |
| TRI STATE CHLORINATION                     |                                                 |          |        |            |
| Sum                                        |                                                 |          |        | 243.00-    |
| 00009 WARREN PAVING INC 10191              | 00179293 17001320 HOT ASPHALT TRANS DEPT        | 06/30/18 | 265007 | 66.76-     |
| 00009 WARREN PAVING INC 10197              | 00179293 17001321 HOT ASPHALT TRANS DEPT        | 06/30/18 | 265007 | 455.09-    |
| 00009 WARREN PAVING INC 10249              | 00179293 17001322 HOT ASPHALT TRANS DEPT        | 06/30/18 | 265007 | 463.66-    |
| 00009 WARREN PAVING INC 10314              | 00179293 17001323 HOT ASPHALT TRANS DEPT        | 06/30/18 | 265007 | 488.77-    |

|                   |        |        |     |       |          |          |     |         |       |      |          |             |         |
|-------------------|--------|--------|-----|-------|----------|----------|-----|---------|-------|------|----------|-------------|---------|
| 00009             | WARREN | PAVING | INC | 10348 | 00179293 | 17001324 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 282.98- |
| 00009             | WARREN | PAVING | INC | 10406 | 00179293 | 17001325 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 467.95- |
| 00009             | WARREN | PAVING | INC | 10483 | 00179293 | 17001326 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 194.17- |
| 00009             | WARREN | PAVING | INC | 10548 | 00179293 | 17001327 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 262.77- |
| 00009             | WARREN | PAVING | INC | 10615 | 00179293 | 17001328 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 129.85- |
| 00009             | WARREN | PAVING | INC | 10620 | 00179293 | 17001329 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 267.06- |
| 00009             | WARREN | PAVING | INC | 10641 | 00179293 | 17001330 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 314.83- |
| 00009             | WARREN | PAVING | INC | 10646 | 00179293 | 17001331 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 416.50- |
| 00009             | WARREN | PAVING | INC | 10671 | 00179293 | 17001332 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 169.67- |
| 00009             | WARREN | PAVING | INC | 10739 | 00179293 | 17001333 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 414.05- |
| 00009             | WARREN | PAVING | INC | 10854 | 00179293 | 17001334 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 294.61- |
| 00009             | WARREN | PAVING | INC | 10884 | 00179293 | 17001335 | HOT | ASPHALT | TRANS | DEPT | 06/30/18 | 265007      | 116.38- |
| -----             |        |        |     |       |          |          |     |         |       |      |          |             |         |
| WARREN PAVING INC |        |        |     |       |          |          |     |         |       |      |          | 4,805.10-   |         |
| Sum               |        |        |     |       |          |          |     |         |       |      |          | -----       |         |
| Sum               |        |        |     |       |          |          |     |         |       |      |          | 325,081.41- |         |

## CITY OF HATTIESBURG

## DOCKET OF CLAIMS

PERIOD ENDING JUNE 30, 2018

Date

- 06/27/18

Vendor

Invoice  
NumberPurchase  
OrderClaims  
NumberItem  
DescriptionCheck  
DateCheck  
No.Check  
Amount

WATER &amp; SEWER FUND

00011 ARIAIL, MARY

METER DEP RF 02018665 17000676 METER DEP RFD

06/30/18

264750

24.40-

ARIAIL, MARY

Sum

00011 BLACKMAN, BEATE

METER DEP RF 02018644 17000691 METER DEP RFD

06/30/18

264767

24.40-

75.00-

BLACKMAN, BEATE

Sum

00011 BREWER, THOMAS W

METER DEP RF 02018664 17000685 METER DEP RFD

06/30/18

264773

75.00-

24.40-

BREWER, THOMAS W

Sum

00011 BROWN, TOMMY

METER DEP RF 02018665 17000673 METER DEP RFD

06/30/18

264774

24.40-

24.40-

BROWN, TOMMY

Sum

00011 CABEZA, MARIA

METER DEP RF 02018664 17000700 METER DEP RFD

06/30/18

264780

24.40-

24.40-

CABEZA, MARIA

Sum

00011 HINES, CHRISTIAN D

METER DEP RF 02018665 17000674 METER DEP RFD

06/30/18

264855

24.40-

7.40-

HINES, CHRISTIAN D

Sum

00011 HUTSON, TYLER

METER DEP RF 02018664 17000694 METER DEP RFD

06/30/18

264863

7.40-

17.52-

HUTSON, TYLER

Sum

00011 JESTER, ERIN

METER DEP RF 02018644 17000692 METER DEP RFD

06/30/18

264872

17.52-

75.00-

JESTER, ERIN

Sum

00011 JOHNSON, GARY A

METER DEP RF 02018665 17000675 METER DEP RFD

06/30/18

264874

75.00-

7.80-

JOHNSON, GARY A

Sum

00011 LADNER, JACE

METER DEP RF 02018664 17000682 METER DEP RFD

06/30/18

264880

7.80-

75.00-

LADNER, JACE

Sum

00011 LADNIER, HOLLY

METER DEP RF 02018664 17000687 METER DEP RFD

06/30/18

264881

75.00-

24.40-

LADNIER, HOLLY

Sum

24.40-

|                                |                                              |          |        |         |
|--------------------------------|----------------------------------------------|----------|--------|---------|
| 00011 LEGGETT, SHADROCK FR     | METER DEP RF 02018665 17000677 METER DEP RFD | 06/30/18 | 264886 | 24.40-  |
| -----                          |                                              |          |        |         |
| LEGGETT, SHADROCK FR           |                                              |          |        | 24.40-  |
| Sum                            |                                              |          |        | 75.00-  |
| 00011 LEJEUNE, TODD            | METER DEP RF 02018664 17000699 METER DEP RFD | 06/30/18 | 264887 | 75.00-  |
| -----                          |                                              |          |        |         |
| LEJEUNE, TODD                  |                                              |          |        | 75.00-  |
| Sum                            |                                              |          |        | 24.40-  |
| 00011 MAZE, ASHLEE             | METER DEP RF 02018644 17000693 METER DEP RFD | 06/30/18 | 264893 | 24.40-  |
| -----                          |                                              |          |        |         |
| MAZE, ASHLEE                   |                                              |          |        | 24.40-  |
| Sum                            |                                              |          |        | 17.52-  |
| 00011 PARKER, KERRY            | METER DEP RF 02018664 17000680 METER RFD DEP | 06/30/18 | 264922 | 17.52-  |
| -----                          |                                              |          |        |         |
| PARKER, KERRY                  |                                              |          |        | 17.52-  |
| Sum                            |                                              |          |        | 31.28-  |
| 00011 PEGRAM, JASON            | METER DEP RF 02018665 17000678 METER DEP RFD | 06/30/18 | 264924 | 31.28-  |
| -----                          |                                              |          |        |         |
| PEGRAM, JASON                  |                                              |          |        | 31.28-  |
| Sum                            |                                              |          |        | 24.40-  |
| 00011 PRICE, TAYLOR            | METER DEP RF 02018664 17000686 METER DEP RFD | 06/30/18 | 264939 | 24.40-  |
| -----                          |                                              |          |        |         |
| PRICE, TAYLOR                  |                                              |          |        | 24.40-  |
| Sum                            |                                              |          |        | 79.16-  |
| 00011 SEMPEN, JACOB            | METER DEP RF 02018664 17000695 METER DEP RFD | 06/30/18 | 264952 | 79.16-  |
| 00011 SEMPEN, JACOB            | METER DEP RF 02018664 17000696 METER DEP RFD | 06/30/18 | 264953 | 109.52- |
| 00011 SEMPEN, JACOB            | METER DEP RF 02018664 17000697 METER DEP RFD | 06/30/18 | 264954 | 38.68-  |
| 00011 SEMPEN, JACOB            | METER DEP RF 02018664 17000698 METER DEP RFD | 06/30/18 | 264955 | 38.68-  |
| -----                          |                                              |          |        |         |
| SEMPEN, JACOB                  |                                              |          |        | 266.04- |
| Sum                            |                                              |          |        | 6.20-   |
| 00011 SMITH, ILENE H           | METER DEP RF 02018665 17000672 METER DEP RFD | 06/30/18 | 264960 | 6.20-   |
| -----                          |                                              |          |        |         |
| SMITH, ILENE H                 |                                              |          |        | 6.20-   |
| Sum                            |                                              |          |        | 24.40-  |
| 00011 STANLEY, WILLIAM D       | METER DEP RF 02018664 17000683 METER DEP RFD | 06/30/18 | 264976 | 24.40-  |
| -----                          |                                              |          |        |         |
| STANLEY, WILLIAM D             |                                              |          |        | 24.40-  |
| Sum                            |                                              |          |        | 40.22-  |
| 00011 TAQUERIA JALISCO LLC     | METER DEP RF 02018664 17000690 METER DEP RFD | 06/30/18 | 264980 | 40.22-  |
| -----                          |                                              |          |        |         |
| TAQUERIA JALISCO LLC           |                                              |          |        | 40.22-  |
| Sum                            |                                              |          |        | 75.00-  |
| 00011 THE SHEPERD WORD MINISTR | METER DEP RF 02018664 17000679 METER RFD DEP | 06/30/18 | 264982 | 75.00-  |
| -----                          |                                              |          |        |         |
| THE SHEPERD WORD MINISTR       |                                              |          |        | 75.00-  |
| Sum                            |                                              |          |        | 75.00-  |
| 00011 WANG, ZHENG              | METER DEP RF 02018664 17000681 METER DEP RFD | 06/30/18 | 265004 | 75.00-  |
| -----                          |                                              |          |        |         |
| WANG, ZHENG                    |                                              |          |        | 75.00-  |
| Sum                            |                                              |          |        | 75.00-  |

|                        |                                              |          |        |           |
|------------------------|----------------------------------------------|----------|--------|-----------|
| 00011 WESTBERRY, FAITH | METER DEP RF 02018664 17000689 METER DEP RFD | 06/30/18 | 265010 | 17.52-    |
|                        |                                              |          |        | -----     |
| WESTBERRY, FAITH       |                                              |          |        | 17.52-    |
| Sum                    |                                              |          |        | 24.40-    |
| 00011 WHITE, RYAN C    | METER DEP RF 02018664 17000688 METER DEP RFD | 06/30/18 | 265011 | 24.40-    |
|                        |                                              |          |        | -----     |
| WHITE, RYAN C          |                                              |          |        | 24.40-    |
| Sum                    |                                              |          |        | 24.40-    |
| 00011 WILCOX, JAMES    | METER DEP RF 02018664 17000684 METER DEP RFD | 06/30/18 | 265012 | 24.40-    |
|                        |                                              |          |        | -----     |
| WILCOX, JAMES          |                                              |          |        | 24.40-    |
| Sum                    |                                              |          |        | 24.40-    |
|                        |                                              |          |        | -----     |
| Sum                    |                                              |          |        | 1,129.90- |

## CITY OF HATTIESBURG

## DOCKET OF CLAIMS

Date - 06/27/18

PERIOD ENDING JUNE 30, 2018

| Vendor                                      | Invoice<br>Number | Purchase<br>Order | Claims<br>Number      | Item<br>Description | Check<br>Date | Check<br>No. | Check<br>Amount |
|---------------------------------------------|-------------------|-------------------|-----------------------|---------------------|---------------|--------------|-----------------|
| -----                                       |                   |                   |                       |                     |               |              |                 |
| POLICE FORFEITURES FUND                     |                   |                   |                       |                     |               |              |                 |
| 00019 FORREST CTY DIST ATTY(SE 20% SHARE-JU | 02018644          | 17000057          | 20% SHARE SEIZED CASH | 06/30/18            | 264833        | 241.40-      |                 |
| 00019 FORREST CTY DIST ATTY(SE 20% SHARE-LE | 02018645          | 17000058          | 20% SHARE SEIZED CASH | 06/30/18            | 264833        | 241.60-      |                 |
|                                             |                   |                   |                       |                     |               |              | -----           |
| FORREST CTY DIST ATTY(SE                    |                   |                   |                       |                     |               |              |                 |
| Sum                                         |                   |                   |                       |                     |               |              | 483.00-         |
|                                             |                   |                   |                       |                     |               |              | -----           |
| Sum                                         |                   |                   |                       |                     |               |              | 483.00-         |



Date - 06/27/18

Vendor

Invoice  
Number

# Purchase Order

Claims  
Number

| Item | Description |
|------|-------------|
|------|-------------|

Check  
Date

Check  
No.

Check  
Amount

TAX COLLECTOR'S FUND

00027 H'BURG PUBLIC SCHOOLS

6/18 MILLAGE 02018655 17000095 6/18 MILLAGE

06/21/18

311915

360,150.06-

00027 H'BURG PUBLIC SCHOOLS

6/18 MILLAGE 02018655 17000096 6/18 MILLAGE

06/21/18

311916

46,805.24-

H'BURG PUBLIC SCHOOLS

Sum

406,955.30-

Sum

406,955.30-

PERIOD ENDING JUNE 30, 2018

Date - 06/27/18

Vendor

Invoice  
Number

# Purchase Order

Claims  
Number

| Item | Description |
|------|-------------|
|------|-------------|

Check  
Date

Check  
No.

Check  
Amount

AIRPORT IMPROVEMENT FUND  
00039 ARE CONSULTANTS INC

180508B

00180754

17000035

SRV 6/9-23 AIRPT TAXIWAY EXTN

06/30/18

264748

7,249.49-

ARE CONSULTANTS INC  
Sum

7,249.49-

Sum

7,249.49-





|                                                                                |                                                 |          |        |             |
|--------------------------------------------------------------------------------|-------------------------------------------------|----------|--------|-------------|
| 00073 JERRY'S AUTOMOTIVE REPAI 19315                                           | 00180682 17000384 A/C REPR U#16761              | 06/30/18 | 264871 | 390.45-     |
|                                                                                |                                                 |          |        | -----       |
| JERRY'S AUTOMOTIVE REPAI                                                       |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 390.45-     |
| 00073 LUMINATOR BUS REPAIR GRO 523031 FREIG 00177411 17000371 FREIGHT CHARGE   |                                                 | 06/30/18 | 264891 | 6.41-       |
|                                                                                |                                                 |          |        | -----       |
| LUMINATOR BUS REPAIR GRO                                                       |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 6.41-       |
| 00073 MOBILITY SYSTEMS INC 7244                                                | 00180023 17000366 REPRS U#20585 BUS             | 06/30/18 | 264903 | 190.00-     |
|                                                                                |                                                 |          |        | -----       |
| MOBILITY SYSTEMS INC                                                           |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 190.00-     |
| 00073 MS POWER COMPANY 6/18 M TRANS 00201818 17000377 MNTHLY ELEC-MASS TRANSIT |                                                 | 06/30/18 | 264910 | 943.87-     |
|                                                                                |                                                 |          |        | -----       |
| MS POWER COMPANY                                                               |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 943.87-     |
| 00073 NAPA AUTO PARTS 5930-577968                                              | 00180549 17000385 SUPP U#2844 SERVICE TRUCK     | 06/30/18 | 264912 | 75.73-      |
|                                                                                |                                                 |          |        | -----       |
| NAPA AUTO PARTS                                                                |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 75.73-      |
| 00073 OLD RIVER TRUCK SALES IN 16405LM                                         | 00178489 17000370 REPRS U#16760 BUS             | 06/30/18 | 264920 | 83.99-      |
|                                                                                |                                                 |          |        | -----       |
| OLD RIVER TRUCK SALES IN                                                       |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 83.99-      |
| 00073 SIGNS FIRST H-64363                                                      | 00180441 17000365 BODY WRAP/WINDOW PERF U#20586 | 06/30/18 | 264958 | 4,920.00-   |
|                                                                                |                                                 |          |        | -----       |
| SIGNS FIRST                                                                    |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 4,920.00-   |
| 00073 SOUTHERN TIRE MART LLC 11148740                                          | 00180466 17000383 TIRES U#19552/16759 BUSES     | 06/30/18 | 264971 | 1,767.36-   |
|                                                                                |                                                 |          |        | -----       |
| SOUTHERN TIRE MART LLC                                                         |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 1,767.36-   |
| 00073 THERMO KING OF JACKSON I 4133934                                         | 00180372 17000367 REPRS U#16234 BUS             | 06/30/18 | 264983 | 387.00-     |
| 00073 THERMO KING OF JACKSON I 4133935                                         | 00180372 17000368 REPRS U#16235 BUS             | 06/30/18 | 264983 | 710.38-     |
|                                                                                |                                                 |          |        | -----       |
| THERMO KING OF JACKSON I                                                       |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 1,097.38-   |
| 00073 VERIZON WIRELESS 9808770892                                              | 00180565 17000373 GPS 6/11-7/10 PARATRANSIT     | 06/30/18 | 264999 | 142.55-     |
|                                                                                |                                                 |          |        | -----       |
| VERIZON WIRELESS                                                               |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 142.55-     |
| 00073 WATERS INTERNATIONAL TRU 08S815959                                       | 00180415 17000386 REPR LIGHTS U#18570           | 06/30/18 | 265008 | 3,863.72-   |
| 00073 WATERS INTERNATIONAL TRU 085816086                                       | 00180627 17000387 REPR W/SHIELD WIPERS U#18571  | 06/30/18 | 265008 | 2,084.50-   |
|                                                                                |                                                 |          |        | -----       |
| WATERS INTERNATIONAL TRU                                                       |                                                 |          |        |             |
| Sum                                                                            |                                                 |          |        | 5,948.22-   |
|                                                                                |                                                 |          |        | -----       |
| Sum                                                                            |                                                 |          |        | 174,902.43- |



## CITY OF HATTIESBURG

## DOCKET OF CLAIMS

Date - 06/27/18

PERIOD ENDING JUNE 30, 2018

| Vendor                                      | Invoice<br>Number | Purchase<br>Order | Claims<br>Number      | Item<br>Description           | Check<br>Date | Check<br>No. | Check<br>Amount |
|---------------------------------------------|-------------------|-------------------|-----------------------|-------------------------------|---------------|--------------|-----------------|
| COMMUNITY CENTERS' FUND                     |                   |                   |                       |                               |               |              |                 |
| 00077 AT&T MOBILITY                         | 287273578351      | 00180481          | 17000395              | WIRELESS SERV 5/18 COMM CNTRS | 06/30/18      | 264758       | 60.84-          |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| AT&T MOBILITY                               |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 60.84-          |
| 00077 CITY OF HATTIESBURG FUND TRF 2ND 6/18 | 02018653          | 17000398          | TRF 2ND 6/18          | PAYROLL                       | 06/19/18      | 311912       | 21,008.73-      |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| CITY OF HATTIESBURG FUND                    |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 21,008.73-      |
| 00077 DOLEAC ELECTRIC CO INC                | CER-X1            | 00180586          | 17000399              | GENERATOR REPR CE ROY CENTER  | 06/30/18      | 264809       | 544.41-         |
| 00077 DOLEAC ELECTRIC CO INC                | BSC-X1            | 00180557          | 17000400              | GENERATOR BATTERY SIGLER CNTR | 06/30/18      | 264809       | 299.57-         |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| DOLEAC ELECTRIC CO INC                      |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 843.98-         |
| 00077 EDDIE PEARSON ROOFING, L 1841         |                   | 00180333          | 17000397              | CLEAN ROOF SHERRILL CENTER    | 06/30/18      | 264816       | 375.00-         |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| EDDIE PEARSON ROOFING, L                    |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 375.00-         |
| 00077 GARNER LUMLEY ELECTRIC S 549947       |                   | 00180445          | 17000405              | EMER LIGHTS/EXIT SIGN CULT CN | 06/30/18      | 264838       | 235.00-         |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| GARNER LUMLEY ELECTRIC S                    |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 235.00-         |
| 00077 GORDON, MARVIN/HAZEL YOU CE ROY CENTE | 02018661          | 17000404          | DAMAGE DEPOSIT REFUND | 06/30/18                      | 264843        | 100.00-      |                 |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| GORDON, MARVIN/HAZEL YOU                    |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 100.00-         |
| 00077 LIFE LINE SCREENING OF A SIGLER CENTE | 02018661          | 17000401          | DAMAGE DEPOSIT REFUND | 06/30/18                      | 264889        | 100.00-      |                 |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| LIFE LINE SCREENING OF A                    |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 100.00-         |
| 00077 MOORE, JAMES (REFUND)                 | CULTURAL CEN      | 02018661          | 17000403              | DAMAGE DEPOSIT REFUND         | 06/30/18      | 264904       | 250.00-         |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| MOORE, JAMES (REFUND)                       |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 250.00-         |
| 00077 MS POWER COMPANY                      | 6/18 COMM CN      | 00201818          | 17000407              | MNTHLY ELEC-COMM CENTERS      | 06/30/18      | 264910       | 5,180.23-       |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| MS POWER COMPANY                            |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 5,180.23-       |
| 00077 NEWELL PAPER COMPANY                  | 4029897           | 00180273          | 17000396              | JANIT SUPP COMM CENTERS       | 06/30/18      | 264914       | 236.73-         |
| 00077 NEWELL PAPER COMPANY                  | 4030393           | 00180456          | 17000408              | JANIT SUPP COMM CENTERS       | 06/30/18      | 264914       | 399.12-         |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| NEWELL PAPER COMPANY                        |                   |                   |                       |                               |               |              |                 |
| Sum                                         |                   |                   |                       |                               |               |              | 635.85-         |
| 00077 SPIRE ENERGY                          | 6/18 COMM CN      | 00201818          | 17000406              | MNTHLY GAS-COMM CENTERS       | 06/30/18      | 264974       | 57.14-          |
| -----                                       |                   |                   |                       |                               |               |              |                 |
| SPIRE ENERGY                                |                   |                   |                       |                               |               |              |                 |

[illegible]



Date - 06/27/18

| Vendor                                      | Invoice<br>Number | Purchase<br>Order | Claims<br>Number     | Item<br>Description           | Check<br>Date | Check<br>No. | Check<br>Amount |
|---------------------------------------------|-------------------|-------------------|----------------------|-------------------------------|---------------|--------------|-----------------|
| COMMUNITY DEVELOP. BLOCK GRANT              |                   |                   |                      |                               |               |              |                 |
| 00082 AT&T MOBILITY                         | 287273578351      | 00180481          | 17000098             | WIRELESS SERV 5/18 CDBG       | 06/30/18      | 264758       | 60.84-          |
| AT&T MOBILITY                               |                   |                   |                      |                               |               |              |                 |
| Sum                                         |                   |                   |                      |                               |               |              | 60.84-          |
| 00082 CITY OF HATTIESBURG FUND TRF 2ND 6/18 | 02018653          | 17000099          | TRF 2ND 6/18 PAYROLL | 06/19/18                      | 311913        |              | 3,944.78-       |
| CITY OF HATTIESBURG FUND                    |                   |                   |                      |                               |               |              |                 |
| Sum                                         |                   |                   |                      |                               |               |              | 3,944.78-       |
| 00082 EATON, ALVIN K (PETTY CA PETTY CASH 5 | 00180665          | 17000100          | PETTY CASH 5/18 CDBG | 06/30/18                      | 264811        |              | 24.24-          |
| EATON, ALVIN K (PETTY CA                    |                   |                   |                      |                               |               |              |                 |
| Sum                                         |                   |                   |                      |                               |               |              | 24.24-          |
| 00082 HUB CITY SPOKES                       | 82095             | 00180718          | 17000101             | CITY WIDE ADS AND NOTICES     | 06/30/18      | 264860       | 45.36-          |
| HUB CITY SPOKES                             |                   |                   |                      |                               |               |              |                 |
| Sum                                         |                   |                   |                      |                               |               |              | 45.36-          |
| 00082 STAPLES                               | 3381902454        | 00180685          | 17000102             | EXTERNAL HARD DRIVES COMM DEV | 06/30/18      | 264977       | 118.58-         |
| STAPLES                                     |                   |                   |                      |                               |               |              |                 |
| Sum                                         |                   |                   |                      |                               |               |              | 118.58-         |
| Sum                                         |                   |                   |                      |                               |               |              | 4,193.80-       |
| Grand Total Level                           |                   |                   |                      |                               |               |              |                 |
| Sum                                         |                   |                   |                      |                               |               |              | 3,541,435.44-   |



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-583**

**File ID:** 2018-583

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:** Lamar Rutland

**File Created:** 07/02/2018

**Brief Title:** Acknowledge no bids were received at the bid opening June 28, 2018 for the Infrastructure Rehabilitation Arledge Street & Katie Avenue Area project; Authorize re-advertisement for bids for same project.

**Final Action:**

**Minute Book Number:** MB2018-172

**Title:**

Acknowledge no bids were received at the bid opening June 28, 2018 for the Infrastructure Rehabilitation Arledge Street & Katie Avenue Area project (related to the Public Safety Complex Project); Authorize re-advertisement for bids for same project.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:**

**Sponsors:**

**Enactment Date:**

**Attachments:** Recommendation Letter for Re-advertisement, 11258\_Plans\_Street Ready Set\_Signed\_2018-05-14, 11258\_Specs\_Review Set\_(Lamar), ADVERTISEMENT FOR BIDS-readvertisement, Executed - ADVERTISEMENT FOR BIDS-readvertisement

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:** Sharon Waits

**Effective Date:**

### History of Legislative File

| Ver-<br>sion: | Acting Body:                                     | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|--------------------------------------------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council - Amendments to the Agenda          | 07/02/2018 |         |          |           |                 |         |
| 1             | City Council - Public Hearing, Unsafe Properties | 07/02/2018 |         |          |           |                 |         |
| 1             | City Council                                     | 07/03/2018 |         |          |           |                 |         |

**Text of Legislative File 2018-583**

**Title**

Acknowledge no bids were received at the bid opening June 28, 2018 for the Infrastructure Rehabilitation Arledge Street & Katie Avenue Area project (related to the Public Safety Complex Project); Authorize re-advertisement for bids for same project.

**Summary**

Acknowledge no bids were received at the bid opening June 28, 2018 for the Infrastructure Rehabilitation Arledge Street & Katie Avenue Area project; Authorize re-advertisement for bids for same project.

**Budget Information**

Certificates of Participation



Engineering Progress

June 29, 2018

City of Hattiesburg  
Post Office Box 1898  
Hattiesburg MS 39403-1898

Attn: Lamar Rutland, P.E.

RE: Infrastructure Rehabilitation Along Arledge Street & Katie Avenue Area  
City of Hattiesburg

Dear Mr. Rutland:

During the bid opening for the above referenced project on June 28, 2018 we received no bids.

At this time, we recommend that you re-advertise the project for bid

If you have any questions or we can be of further assistance please do not hesitate to call me at (601) 544-1821.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Shea E. McNease', written over a large, stylized blue oval.

Shea E. McNease, P.E.  
President



G:\PROJECTS\Other and Associates\15819\CAD Files\1258 City CAD\1258\_Cover\_Note.dwg, CVR, 5/14/2018 11:30:32 AM

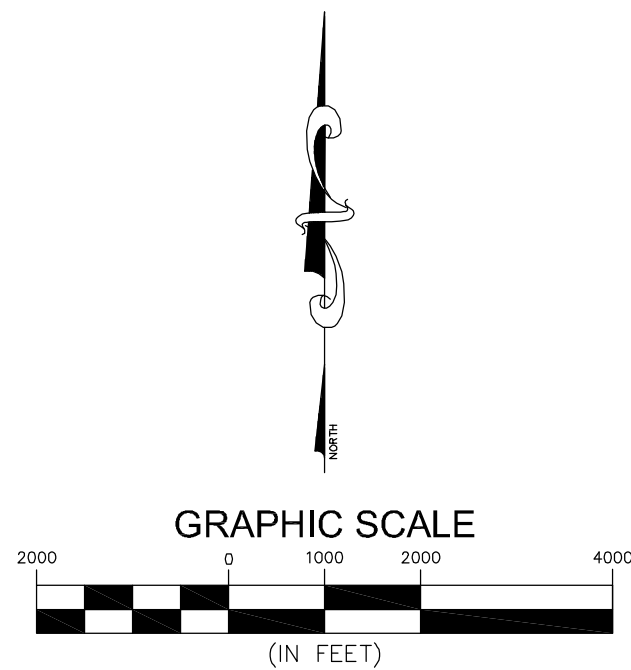
| DETAILED INDEX |         |                                                                                                                         |
|----------------|---------|-------------------------------------------------------------------------------------------------------------------------|
| SHEET No.      | WRK No. | DESCRIPTION                                                                                                             |
| 1              | CVR     | COVER SHEET, SHEET INDEX, VICINITY MAP, LOCATION MAP & UTILITY LIST                                                     |
| 2              | GN1     | GENERAL NOTES & LEGENDS                                                                                                 |
| 3              | TOPO1   | TOPOGRAPHIC MAP                                                                                                         |
| 4              | TOPO2   | TOPOGRAPHIC MAP CONTINUED                                                                                               |
| 5              | PnP1    | ARLEDGE STREET STA 10+00 - STA 16+40                                                                                    |
| 6              | PnP2    | ARLEDGE STREET STA 12+60 - STA 18+40                                                                                    |
| 7              | PnP3    | KATIE AVENUE STA 10+00 - STA 15+00                                                                                      |
| 8              | PLN1    | KATIE AVENUE STORM DISCHARGE PLAN                                                                                       |
| 9              | TS1     | TRAFFIC SIGNAL RELOCATION PLAN                                                                                          |
| 10             | TCP 1   | TRAFFIC CONTROL PLAN                                                                                                    |
| 11             | GSD1    | GENERAL SITE DETAILS                                                                                                    |
| 12             | GSD2    | GENERAL SITE DETAILS                                                                                                    |
| 13             | WTRD1   | WATER INSTALLATION DETAILS                                                                                              |
| 14             | WTRD2   | WATER INSTALLATION DETAILS                                                                                              |
| 15             | SSD1    | SEWER INSTALLATION DETAILS                                                                                              |
| 16             | SSD2    | SEWER INSTALLATION DETAILS                                                                                              |
| 17             | TWD1    | TRACER WIRE DETAILS                                                                                                     |
| 18             | PMP1    | PAVING, MARKING & SIGNAGE PLAN                                                                                          |
| 19             | PMP2    | PAVING, MARKING & SIGNAGE PLAN                                                                                          |
| 20             | PMP3    | PAVING, MARKING & SIGNAGE PLAN                                                                                          |
| 21             | PMP4    | PAVING, MARKING & SIGNAGE PLAN                                                                                          |
| 22             | PMP5    | PAVING, MARKING & SIGNAGE PLAN                                                                                          |
| 23             | ECP1    | STORM WATER POLLUTION PREVENTION PLAN                                                                                   |
| 24             | VS1     | VEGETATION SCHEDULE & MISC DETAILS                                                                                      |
| 25             | TSD-3   | PULL BOX AND CONDUIT TRENCHING DETAILS FOR TRAFFIC SIGNAL INSTALLATION                                                  |
| 26             | TSD-5   | TYPICAL DETAILS OF CONTROLLER CABINET MOUNTINGS, TYPE 1 POLE ATTACHMENTS AND MISCELLANEOUS DETAILS                      |
| 6101           | ECD-1   | TYPICAL TEMPORARY EROSION / SEDIMENT CONTROL APPLICATIONS                                                               |
| 6102           | ECD-2   | DETAILS OF SEDIMENT BARRIER APPLICATIONS                                                                                |
| 6103           | ECD-3   | DETAILS OF SILT FENCE INSTALLATION                                                                                      |
| 6104           | ECD-4   | DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS                                                                |
| 6106           | ECD-6   | DETAILS OF EROSION CONTROL WATTLE DITCH CHECK                                                                           |
| 6111           | ECD-11  | TYPICAL APPLICATIONS AND DETAILS FOR INLET CONSTRUCTION                                                                 |
| 6113           | ECD-13  | INLET PROTECTION DETAILS OF WATTLES                                                                                     |
| 6115           | ECD-15  | INLET PROTECTION DETAILS OF SANDBAGS                                                                                    |
| 6121           | ECD-21  | DETAILS OF EROSION CONTROL SANDBAG DITCH CHECK                                                                          |
| 6351           | TCP-1   | TRAFFIC CONTROL PLAN WITH FLAGGER                                                                                       |
| 6358           | TCP-8   | HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS                                                            |
| 6422           | CR-2    | CURB RAMPS PLACEMENT DETAILS                                                                                            |
| 6424           | CR-4    | CURB RAMPS DETECTABLE WARNING DETAILS                                                                                   |
| 6501           | PI-1    | PIPE CULVERT INSTALLATION                                                                                               |
| 6502           | PI-2    | FLEXIBLE PIPE CULVERT INSTALLATION                                                                                      |
| 6504           | JB-1    | JUNCTION BOX FOR PIPE CULVERTS                                                                                          |
| 6506           | JB-2    | JUNCTION BOX TYPE 2 FOR TRAFFIC LOAD                                                                                    |
| 6524           | SS-2    | STORM SEWER INLET TYPE SS-2                                                                                             |
| 6531           | FE-1A   | FLARED END SECTION FOR CONCRETE ARCH PIPE                                                                               |
| 6535           | PCU-1   | PRECAST UNITS (JUNCTION BOX, SS-3 INLET, & DROP INLET) (30" CONC. ROUND PIPE & UNDER) (36"x23" CONC. ARCH PIPE & UNDER) |



Know what's below.  
Call before you dig.

#### SPECIAL UTILITY NOTES:

- ALL UTILITIES THAT LOCATED DURING THE FIELD DATA COLLECTION ARE SHOWN ON THESE PLANS. ALL CONFLICTS WITH EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE COORDINATED WITH THE UTILITY OWNER. THE ENGINEER AND THE PROJECT OWNER PRIOR TO INSTALLATION OF THE PROPOSED WATER SYSTEM. (NO SEPARATE PAY FOR COORDINATION)
- THE CONTRACTOR SHALL DOCUMENT THE EXISTENCE OF ANY MISSING AND/OR OVERLAPPING UNDERGROUND UTILITIES AND STORM DRAINAGE NOT SHOWN ON THESE CONSTRUCTION DRAWINGS.



# CONSTRUCTION PLANS

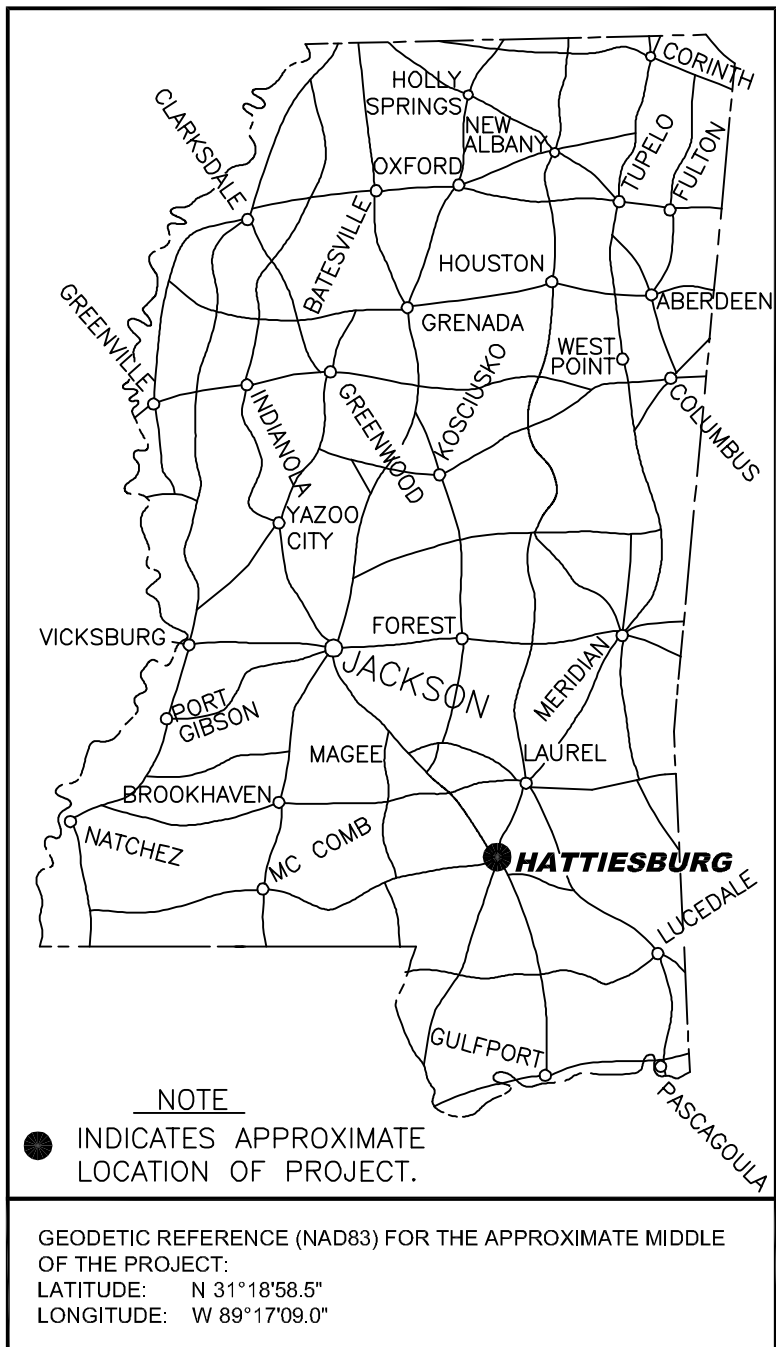
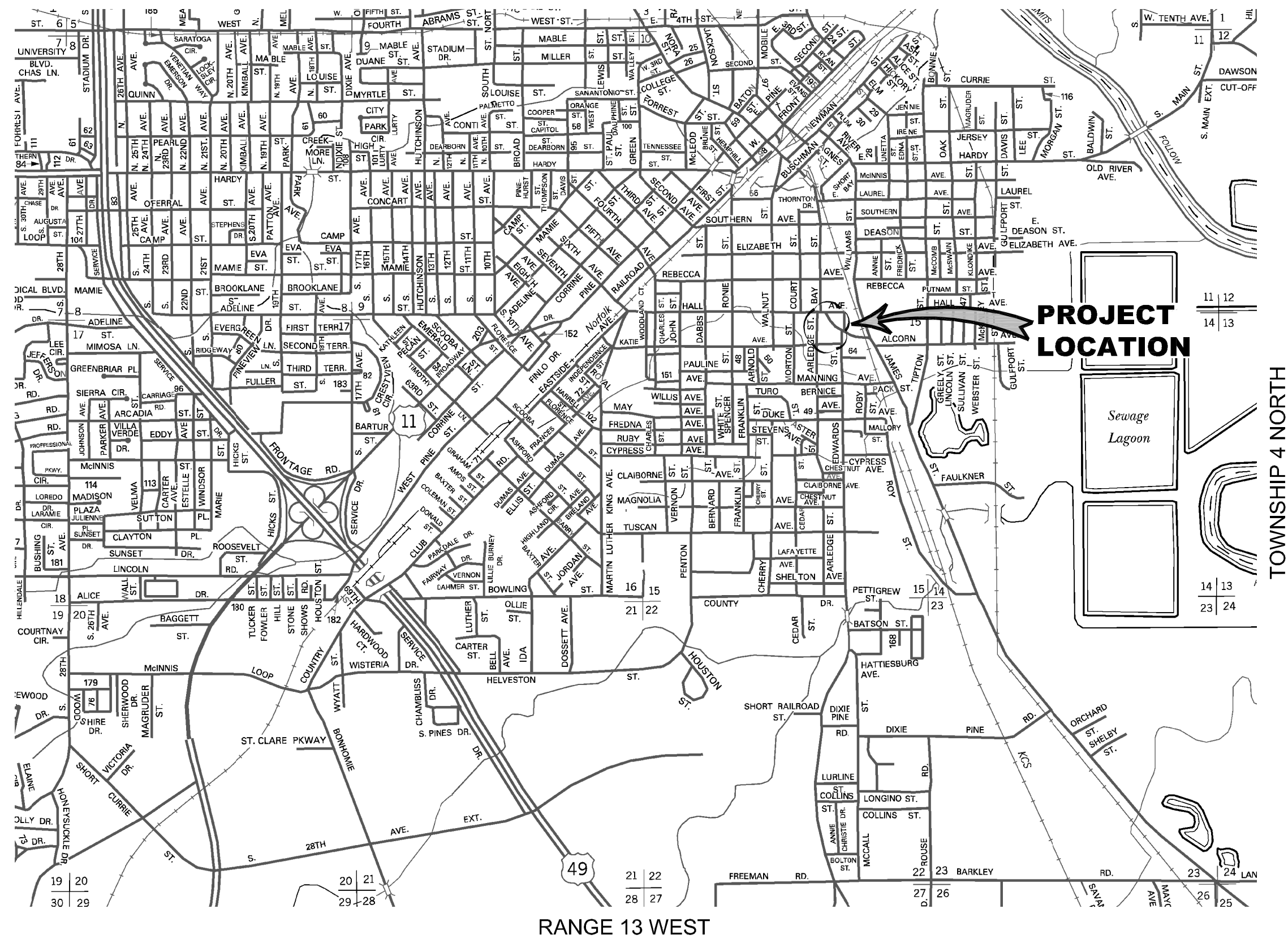
FOR

## INFRASTRUCTURE REHABILITATION ARLEDGE STREET & KATIE AVENUE AREA

FOR THE

## CITY OF HATTIESBURG

### FORREST COUNTY MISSISSIPPI



#### PUBLIC UTILITIES

**CABLE**  
COMCAST  
2100 LINCOLN ROAD  
HATTIESBURG, MS 39402  
(601) 264-1188

**POWER**  
MISSISSIPPI POWER, CO.  
6356 U.S. HIGHWAY 49  
HATTIESBURG, MS 39401  
(601) 544-6511

**TELEPHONE**  
AT&T  
P.O. BOX 1191  
HATTIESBURG, MS 39401  
(601) 545-6424

**TRAFFIC**  
CITY OF HATTIESBURG  
TRAFFIC DEPT.  
125 WALNUT STREET  
HATTIESBURG, MS 39401  
(601) 545-4626

**GAS**  
WILMUT GAS  
P.O. BOX 1649  
HATTIESBURG, MS 39403  
(601) 544-6001

**SEWER**  
CITY OF HATTIESBURG  
WATER & SEWER DEPT.  
900 JAMES STREET  
HATTIESBURG, MS 39403  
(601) 545-4530

**WATER**  
CITY OF HATTIESBURG  
WATER & SEWER DEPT.  
900 JAMES STREET  
HATTIESBURG, MS 39403  
(601) 545-4530

#### MAYOR

Toby Barker

#### COUNCIL PERSONS

Carter Carroll, President  
Mary Dryden, Vice President  
Jeffrey George  
Deborah Denard Delgado  
Nicholas Brown

#### DIRECTOR OF ENGINEERING

Lamar Rutland, PE

PREPARED BY:

**sdw**

Engineering Progress

301 Second Ave. | Hattiesburg, MS 39401 | (p) 601.544.1821 | (f) 601.544.0501 | sd-w.com

Working No. \_\_\_\_\_ CVR  
Sheet No. \_\_\_\_\_  
Drawing No.: \_\_\_\_\_

MAY 2018

| NO. | DATE | DESCRIPTION | BY |
|-----|------|-------------|----|
|     |      |             |    |
|     |      |             |    |
|     |      |             |    |
|     |      |             |    |
|     |      |             |    |



1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL CODES.
2. THE CONTRACTOR SHALL KEEP A SET OF CONSTRUCTION PLANS OF THE PROJECT ON THE JOB SITE SHOWING THE PROJECT SHOWING THE ACCURATE MEASUREMENTS AND ELEVATIONS OF THE "AS-BUILT" SYSTEM. THIS DATA WILL BE COLLECTED AND PUT ON THE DRAWINGS DAILY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING THE ENTIRE PROJECT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CITY OF HATTIESBURG AND/OR FORREST COUNTY FEES AND PERMITS ASSOCIATED WITH CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND THE LOCATION OF THE PROJECT. CONTROL COORDINATE SYSTEM AND ELEVATION CONTROL ARE SHOWN ON THE PLAN SHEETS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN SUB-SURFACE SOIL INVESTIGATIONS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING TOPOGRAPHIC DATA AND ALL OTHER SITE CONDITIONS PRIOR TO THE BEGINNING OF CONSTRUCTION, ANY CONFLICT SHALL BE COORDINATED WITH THE CONTRACTOR, OWNER AND ENGINEER/ARCHITECT. THE ENGINEER CANNOT AND DOES NOT WARRANT THAT THIS INFORMATION IS COMPLETE OR ACCURATE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UTILITIES WITHIN THE WORK AREA.
9. ALL UNDERGROUND UTILITIES, FOR THE ENTIRE PROJECT, SHALL BE LOCATED BY THE CONTRACTOR AND UTILITY OWNERS PRIOR TO THE CONSTRUCTION OF THE PROJECT. ANY CONFLICTS SHALL BE COORDINATED BETWEEN CONTRACTOR, UTILITY OWNER AND ENGINEER.
10. ALL CULVERT CROSS DRAINS AND SIDE DRAINS SHALL BE PROTECTED. REMOVAL AND REPLACEMENT, IF REQUIRED, SHALL BE PAID AS NOTED.
- 10.1. ANY EXISTING CROSS DRAINS SHOWN TO BE REMOVED AND REPLACED SHALL BE REPLACED WITH NEW RCP AND SHALL BE INSTALLED AT THE SAME GRADE AS THE EXISTING CROSS DRAIN, UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT THE GRADES OF THE REPLACED PIPE ARE CORRECT AND TO INSURE PROPER FLOW.
- 10.2. ANY EXISTING SIDE DRAINS THAT CONFLICT WITH CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH NEW CORRUGATED HDPE PIPE AND SHALL BE INSTALLED AT THE SAME GRADE AS THE EXISTING SIDE DRAIN, UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT THE GRADES OF THE REPLACED PIPE ARE CORRECT AND TO INSURE PROPER FLOW.
- 10.3. IF THE EXISTING DRAIN PIPES ARE CONNECTED TO INLETS, HEADWALLS OR ANY OTHER DRAINAGE STRUCTURES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONNECTION TO THOSE STRUCTURES, UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER. CONCRETE PIPE COLLARS SHALL BE USED AS WARRANTED, AS APPROVED BY THE ENGINEER. SOME INLETS ARE NOTED FOR REPLACEMENT ON THE PLANS AND SHALL BE REPLACED AS DETAILED.
- 10.4. ANY EXISTING DRAINS THAT SHOWN TO BE REMOVED AND RESET SHALL BE REMOVED, SALVAGED AND RESET PER NEW PIPE INSTALLATION DETAILS CONTAINED HEREIN. ANY DAMAGE TO THE SALVAGED PIPE SHALL BE REPLACED AT NO ADDITIONAL COST TO THE PROJECT.
- 10.5. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE EXISTING STORM DRAINAGE STRUCTURES DURING THE CONSTRUCTION PROCESS. ANY DAMAGE, OTHER THAN THAT NOTED ABOVE, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 10.6. ABSOLUTELY NO NEW CORRUGATED METAL PIPE SHALL BE INSTALLED ON THIS PROJECT.
11. THE COST OF CLEARING AND GRUBBING/REMOVAL AND DISPOSAL OF CLEARING AND GRUBBING MATERIAL SHALL BE PAID LUMP SUM, UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE FAMILIAR WITH THE EXTENT OF CLEARING REQUIRED PRIOR TO BIDDING. OFFSITE DISPOSAL AREAS ARE TO BE FURNISHED BY THE CONTRACTOR.
12. PROPER MAINTENANCE OF STREETS, INCLUDING DUST CONTROL, SHALL BE STRICTLY ADHERED TO.
13. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
14. THE CONTRACTOR SHALL PROVIDE PROPER TRAFFIC CONTROL SIGNS AND FLAGGERS TO MAINTAIN ONE LANE TRAFFIC DURING CONSTRUCTION, WHERE LANE CLOSURES ARE NEEDED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SEE SHEET NO. 6250 FOR TYPICAL LANE CLOSURE DETAILS. ANY ROAD CLOSURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO IMPLEMENTATION.
15. ALL DISTURBED UNPAVED AREAS SHALL BE RESTORED AS FOLLOWS:
  - 15.1. GRASSED AREAS SHALL RECEIVE SOLID SOIL WHICH SHALL BE FERTILIZED AND WATERED AS PER THE VEGETATION SCHEDULE. PERMANENT ESTABLISHMENT OF GRASS GROWTH SHALL BE A REQUIREMENT BEFORE FINAL COMPLETION.
  - 15.2. ALL LANDSCAPED AREAS SHALL BE RESTORED IN KIND AND SHALL INCLUDE TOP SOIL (4" DEPTH MIN), WATERING, FERTILIZER AND MULCH, IF PRESENT (IN KIND), AS PER THE VEGETATION SCHEDULE. CONTRACTOR SHALL MATCH SPECIES AND SIZE AS CLOSE AS POSSIBLE. SUBSTITUTIONS SHALL BE ALLOWED ONLY BY WRITTEN APPROVAL FROM THE ENGINEER AND COORDINATION WITH THE AFFECTED RESIDENT.
16. ALL EXISTING MAILBOXES, STREET SIGNS, FENCES, AND OTHER STRUCTURES LOCATED WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED AND RESET AS DICTATED BY CONSTRUCTION ACTIVITIES. (NO SEPARATE PAY, UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER). EXISTING FLOWER BEDS, GARDENS, SHRUBS, ETC. WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED AND RESET AS DICTATED BY CONSTRUCTION ACTIVITIES. (NO SEPARATE PAY, UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER). ALL ITEMS (INCLUDING REMOVAL OF OBSTRUCTIONS, REMOVED AND RESET AND/OR REPLACEMENT OF STORM DRAIN STRUCTURES, ETC.) FOR WHICH NO PAY ITEM IS LISTED, SHALL BE INCLUDED IN THE COST OF THE PIPE LAYING OPERATION. (NO SEPARATE PAY).
17. PAVED ROADS SHALL BE OPEN CUT AND REPAIRED AS DETAILED. CASING SHALL BE USED ONLY WHERE NOTED ON THE PLANS.
18. ALL GRAVEL ROADS AND GRAVEL DRIVEWAYS SHALL BE OPEN CUT WITHOUT CASING, UNLESS OTHERWISE NOTED, AND REPLACED IN KIND.
19. ALL PAVED DRIVEWAYS SHALL BE OPEN CUT AND REPAIRED IN KIND, UNLESS OTHERWISE NOTED.
20. CONTRACTOR SHALL PROVIDE ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ALL DRIVEWAY CUTS AND EXCAVATION WITH THE OWNERS OF SAID DRIVEWAYS.
21. ANY DAMAGE TO PAVED ROADS OR DRIVEWAYS, WHICH ARE OUTSIDE OF THE PROJECT LIMITS, SHALL BE REPAIRED IN KIND, AT THE CONTRACTOR'S EXPENSE.
22. ALL TRENCHES IN PAVED AREAS SHALL BE REPAIRED AS DETAILED. CRUSHED AGGREGATE SHALL ALSO BE INSTALLED AND USED FOR A TEMPORARY SURFACE UNTIL SUCH TIME THAT THE OWNER DECIDES TO ALLOW INSTALLATION OF PAVEMENT (SEE DETAILS). ALL CRUSHED AGGREGATE SHALL BE SIZE #10. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF EXISTING PAVEMENT AND OR CRUSHED AGGREGATE PRIOR TO PLACEMENT OF PAVEMENT IN PATCHED AREAS TO MAKE A SMOOTH JOINT WITH THE EXISTING PAVEMENT. SAW CUT TO FULL DEPTH OF EXISTING PAVEMENT SHALL BE REQUIRED ON ALL PAVEMENT REPAIR, UNLESS OTHERWISE DIRECTED. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SURFACE IN AN ACCEPTABLE CONDITION UNTIL SUCH TIME AS FINAL PAVEMENT IS INSTALLED.
23. ALL ROAD BORES SHALL BE IN ACCORDANCE TO THE DETAILS.
24. ALL SELECT FILL MATERIAL SHALL MEET THE SPECIFICATIONS FOR CLASS 9, GROUP C AND MODIFIED TO CONSIST OF A PLASTICITY INDEX (PI) BETWEEN 5 AND 15. THE SELECT FILL MATERIAL SHALL BE INSTALLED AT THE DIRECTION OF THE ENGINEER OR HIS REPRESENTATIVE.
25. PRIOR TO THE BEGINNING OF ANY EXCAVATION, ALL EXISTING PAVEMENT SHALL BE SCORED OR SAW CUT TO A DEPTH SUCH THAT A STRAIGHT AND UNIFORM VERTICAL EDGE IS ESTABLISHED PRIOR TO REMOVAL OF SAID PAVEMENT FROM THE PROJECT. IF VERTICAL EDGE IS DISTURBED, THEN A SECOND CUT SHALL BE REQUIRED PRIOR TO ASPHALT OR CONCRETE PATCHING. ALL ASPHALT OR CONCRETE SHALL BE REMOVED FROM THE PROJECT SITE PRIOR TO EXCAVATION PROCEDURES. (NO SEPARATE PAY FOR SAW CUTTING, DEBRIS REMOVAL, PAVEMENT REMOVAL AND DISPOSAL)
26. WORK FOR THIS PROJECT REQUIRES EXCAVATION IN THE IMMEDIATE VICINITY OF TRAFFIC AND ADJACENT PROPERTIES. THEREFORE, THE RISK OF A FAILURE OCCURRING DURING EXCAVATION REQUIRES THAT EXTREME CAUTION BE EXERCISED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING WHAT BRACING, SHORING OR GROUND SUPPORT SYSTEM THAT IS DEEMED NECESSARY TO PREVENT A FAILURE AND PROTECT THE PERSONS WORKING NEAR THE EXCAVATION, THE PUBLIC THAT MAY BE ABOVE THE EXCAVATION, OR ANY STRUCTURE ADJACENT TO THE EXCAVATION. ALL COSTS FOR ANY PROTECTIVE MEASURES INCLUDING THE MATERIALS AND LABOR FOR DESIGNING, DRAWING AND CONSTRUCTING THE FACILITY SHALL BE INCLUDED IN THE BID PRICE FOR CONTRACT ITEMS.
27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING BRACING, SHORING OR ANY GROUND SUPPORT SYSTEM REQUIRED TO PREVENT A FAILURE FROM OCCURRING DURING EXCAVATION. ALL COST FOR ANY PROTECTIVE MEASURES, INCLUDING THE MATERIALS AND LABOR FOR DESIGNING AND CONSTRUCTING THE SUPPORT SYSTEM, SHALL BE INCLUDED IN THE BID PRICE FOR CONTRACT ITEMS.
28. THE EROSION CONTROL DEVICES SHALL BE REQUIRED AS DIRECTED BY THE ENGINEER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT SILT DOES NOT LEAVE THE CONSTRUCTION SITE OR CONTAMINATE WATERS OF THE U.S. DURING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN THE PLAN DURING CONSTRUCTION UNTIL PERMANENT GRASS IS ESTABLISHED OR THE DISTURBED SURFACED IS PAVED.
29. THE CONTRACTOR SHALL ADHERE TO ALL MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS FOR EROSION CONTROL AND ANY OTHER PERTINENT GUIDELINES.
30. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL TESTING BY AN INDEPENDENT LABORATORY APPROVED BY THE ENGINEER AND/OR OWNER.
31. MATERIAL SUBMITTALS SHALL BE MADE TO OWNER THROUGH THE ENGINEER PRIOR TO USE FOR APPROVAL.
32. ALL WATER AND SEWER SYSTEMS INSTALLED ON THIS PROJECT SHALL REQUIRE A TRACER WIRE SYSTEM.
33. THE CONTRACTOR SHALL HAVE A COMPETENT AND EXPERIENCED SUPERINTENDENT ON SITE AT ALL TIMES. THE SUPERINTENDENT SHALL NOT OPERATE EXCAVATION WHILE ON THE PROJECT SITE. WORK ON THE PROJECT SHALL STOP IF THE ASSIGNED PROJECT SUPERINTENDENT IS NOT ON SITE.
34. MANHOLE LIDS, FIRE HYDRANTS & VALVES NOTED FOR REMOVAL IN THESE PLANS, SHALL BE SALVAGED FOR THE OWNER. ALL ITEMS SALVAGED ITEMS SHALL BE CLEANED BY POWER WASHING, SAID ITEMS SHALL BE STACKED AND SECURED ON PALLETS, SAID ITEMS SHALL BECOME THE PROPERTY OF THE OWNER AND DELIVERED TO A SITE DETERMINED BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF SAID ITEMS PRIOR TO DELIVERY TO THE OWNER AND FOR REPLACEMENT IN KIND FOR ANY MISSING ITEMS. (NO SEPARATE PAY)
35. ALL MATERIALS FOR THE PROJECT SHALL BE A PRODUCT OF THE U.S.A.

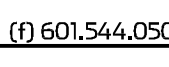
- NO PIPE SHALL BE LAID IN THE PRESENCE OF WATER. NO MANHOLE OR WET WELL SHALL BE SET IN THE PRESENCE OF WATER.
- WELL POINTS, IF REQUIRED, SHALL BE INCLUDED IN THE COST OF THE PIPING LAYING OPERATION.
- WHERE THE WATER MAIN IS WITHIN 10 FEET OF A SEWER MAIN HORIZONTALLY, THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 18" FROM THE TOP OF THE SEWER MAIN, UNLESS OTHERWISE NOTED.
- THE FINISHED ELEVATION OF ALL MANHOLE TOPS FOR MANHOLES TO BE CONSTRUCTED IN PAVED AREAS SHALL BE AT EXISTING PAVEMENT ELEVATION OR AS DIRECTED BY THE ENGINEER. MANHOLE AND PIPE ELEVATIONS SHALL BE TAKEN FROM CUT SHEETS FURNISHED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION. PAYMENT FOR SEWER WILL BE BASED ENTIRELY ON THE ENGINEER APPROVED CUT SHEETS.
- MANHOLES SHALL HAVE 20 MIL. COAL TAR EPOXY COATING ON THE INSIDE, UNLESS OTHERWISE NOTED. DUCTILE IRON PIPE SHALL BE LINED AS NOTED IN THE SPECIFICATIONS.
- ALL SEWER MAINS, SERVICE LINES AND FITTINGS SHALL BE SDR 26 PVC AND OF THE SIZE AS NOTED IN THESE PLANS, UNLESS OTHERWISE NOTED. ALL FITTINGS REQUIRED FOR DUCTILE IRON OR PVC PIPE SHALL BE INCLUDED IN THE APPROPRIATE BID ITEM FOR THE PIPE AND AT NO ADDITIONAL COST TO THE PROJECT EXCEPT SERVICE TEE'S AND CLEANOUTS. CLEANOUTS SHALL INCLUDE TEE, SERVICE CAP, TRAFFIC COVER IF NEEDED, AND ANY PIPE LENGTH TO BRING CLEANOUT TO SURFACE GRADE. ALL CLEANOUTS LOCATED IN PAVED AREAS SHALL BE INSTALLED WITH A TRAFFIC LOAD RATED FRAME AND COVER SET FLUSH WITH PAVEMENT. (NO SEPARATE PAY)
- ALL DUCTILE IRON PIPE SHALL BE LOCKING JOINT TYPE AND OF THE SIZE AS NOTED ON THESE PLANS.
- INFILTRATION/EXFILTRATION ON NEWLY INSTALLED SEWER MAIN SHALL BE REQUIRED AS DIRECTED. MANDREL TESTS SHALL BE REQUIRED ON ALL SEWER MAIN INSTALLED. CONTRACTOR SHALL BE REQUIRED TO PULL A MANDREL FOR TESTING PURPOSES IN ALL SEWER LINES INSTALLED ON THE PROJECT PRIOR TO FINAL ACCEPTANCE. MANDREL TEST SHALL BE PERFORMED IN LIVE OR BYPASS PUMPED SEWER AS NECESSARY AT THE DISCRETION OF THE ENGINEER
- ALL MANHOLES SHALL BE 48" IN DIAMETER, WITH ECCENTRIC TOP CONE SECTIONS, UNLESS OTHERWISE NOTED. (SEE PLAN AND PROFILE SHEETS FOR PROPER SIZING)
- ALL SINGLE DROPS FOR SEWER PIPE 8" AND UNDER IN DIAMETER SHALL BE PLACED INSIDE THE MANHOLE AS DETAILED. ALL MULTIPLE DROPS OR DROPS FOR SEWER PIPE OVER 8" IN DIAMETER SHALL BE PLACED OUTSIDE OF THE MANHOLE AS DETAILED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL ADHERE TO ALL MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS FOR SANITARY SEWER CONSTRUCTION CONTROL AND ANY OTHER PERTINENT GUIDELINES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR BY-PASS PUMPING AS REQUIRED BY THE ENGINEER. (NO SEPARATE PAY)
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONNECTING ANY SEWER SERVICE LINES WHICH ARE CUT AND/OR REMOVED DURING THIS PROJECT.
- ALL SERVICE CONNECTIONS SHOWN ON THE PLAN SHEETS SHALL BE CONNECTED TO THE PROPOSED SEWER LINE, UNLESS NOTED OTHERWISE OR DIRECTED BY THE ENGINEER.
- FLEXIBLE COUPLINGS SHALL BE USED ONLY WITH ENGINEER'S APPROVAL.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND FLOWLINE ELEVATION OF THE SERVICE CONNECTION POINTS AT EACH STRUCTURE PRIOR TO CONSTRUCTION. LENGTH OF SERVICE CONNECTIONS MAY VARY FROM WHAT IS SHOWN DUE TO LOCATION OF SERVICE CONNECTION POINT.
- THE MINIMUM GRADE FOR SEWER SERVICE CONNECTIONS SHALL BE 0.50% SERVICE CONNECTION TO MAIN, TEE'S, REDUCERS, CONNECTIONS TO EXISTING SERVICE AND ANY OTHER FITTINGS NECESSARY TO MAKE THE CONNECTION SHALL BE PAID PER EACH CONNECTION. SERVICE LINE SHALL BE PAID BY LINEAR FOOT.
- CLEANOUTS SHALL BE PAID PER EACH. CLEANOUTS FOR SANITARY SEWER SERVICES SHALL BE PLACED AT THE RIGHT OF WAY LINE (AS DETAILED), AT EVERY TURN AND CHANGE IN GRADE, UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER.
- SERVICE CONNECTIONS NOTED ON THESE PLANS ARE LOCATED BASED ON FIELD EVIDENCE, INSPECTION REPORTS AND OTHER INFORMATION THAT IS AVAILABLE TO THE ENGINEER. THE LOCATION OF ANY SERVICE NOTED AS "FIELD VERIFY" IS QUESTIONABLE AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION OF THE MAIN LINE.
- ALL SERVICE CONNECTIONS (FOR ALL UTILITY TYPES) WHICH ARE TEMPORARILY DISCONNECTED DUE TO CONSTRUCTION REQUIREMENTS, DAMAGED OR OTHERWISE DISCONNECTED, SHALL BE REPAIRED IN KIND AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE DIRECTED. (NO SEPARATE PAY). SERVICE INTERRUPTS SHALL BE COORDINATED WITH THE UTILITY OWNER AND THE AFFECTED STRUCTURE OWNER. EXCEPTION 1: WATER SERVICE CONNECTIONS WHICH ARE DEGRADED BEYOND REPAIR, LEAKING, BROKEN, ETC. PRIOR TO CONSTRUCTION, SHALL BE DOCUMENTED, REPORTED TO THE ENGINEER, REPAIRED AND PAID AS OUTLINED IN THE BID PROPOSAL (SIZE TO MATCH EXISTING). EXCEPTION 2: ANY OTHER SERVICE CONNECTIONS, EXCEPT WATER & SEWER, WHICH ARE DEGRADED BEYOND REPAIR, LEAKING, BROKEN, ETC. PRIOR TO CONSTRUCTION, SHALL BE DOCUMENTED, REPORTED TO THE ENGINEER AND REPORTED TO THE UTILITY OWNER.
- THE CONTRACTOR SHALL NOTE MINIMUM GRADES FOR VARIOUS LOCATIONS OF PROPOSED SEWER LINES WITHIN THE PROJECT. THE CONTRACTOR SHALL HAVE THE EXPERTISE TO INSTALL PIPING ON THESE GRADES. ANY INSTALLED PIPE FOUND TO HAVE MORE THAN 1/4" OF STANDING WATER SHALL BE REMOVED AND RE-LAID AT THE CONTRACTOR'S EXPENSE.
- ALL BEDDING MATERIAL FOR ALL PIPE SHALL BE ABSORBED IN THE PRICE OF THE PIPE LAYING OPERATION.
- ALL MANHOLES LOCATED IN FLOOD ZONES SHALL HAVE BOLTED LIDS AND FRAMES AS SHOWN ON PLANS.

3. ALL WORK ITEMS FOR WHICH NO PAY ITEMS ARE ESTABLISHED SHALL BE ABSORBED IN THE COST OF THE PIPE LAYING OPERATION.
2. NO PIPE SHALL BE LAID IN THE PRESENCE OF WATER.
3. WHERE THE WATER MAIN IS WITHIN 10 FEET OF A SEWER MAIN HORIZONTALLY, THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 18" FROM THE TOP OF THE SEWER MAIN, UNLESS OTHERWISE NOTED.
4. ALL STEEL CASINGS SHALL BE 0.230" WALL THICKNESS, UNLESS OTHERWISE NOTED, AND OF THE SIZE AS NOTED ON THESE PLANS.
5. ALL ROAD BORES SHALL BE IN ACCORDANCE TO THE DETAILS.
6. ALL WATER PIPE SHALL BE DUCTILE IRON, CLASS 350, AND/OR HOPE DR 11, 200 PSI, AS NOTED ON PLANS.
7. ALL FITTINGS AND VALVES SHALL BE DUCTILE IRON WITH CONCRETE THRUST BLOCK AT ALL BENDS AND SECURED TOGETHER WITH MEGA LUG CONNECTIONS. ALL TEES AND VALVES SHALL BE SECURED TOGETHER AS ONE UNIT. VALVES AND FIRE HYDRANTS SHALL BE SECURED TOGETHER BUT SEPARATE FROM THE TEE AND OTHER VALVES. ALL FITTINGS, EXCEPT VALVES SHALL BE ABSORBED ITEMS.
8. ALL BENDS SHOWN IN THE PROPOSED WATERLINE SHALL BE ACCOMPLISHED THROUGH THE USE OF THE REQUIRED FITTINGS (22.5°, 30°, 45°...). SINGLE 90° BEND FITTINGS SHALL NOT BE PERMITTED UNLESS SPECIFICALLY NOTED ON THE PLANS AND/OR APPROVED BY THE ENGINEER. 90° BENDS SHALL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDED FITTINGS. BENDS SHOWN ON THE PLAN SHEETS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO BIDDING AND CONSTRUCTION. ONLY MAJOR BENDS ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FITTINGS NECESSARY TO INSTALL THE PROPOSED WATER LINE. (NO SEPARATE PAY) TEES AND CROSSES SHALL BE PAID FOR UNDER THE CONNECTION ITEM.
9. ALL PROPOSED FIRE HYDRANTS SHOWN FOR INSTALLATION ON THE PLANS SHEETS SHALL BE 3-WAY HYDRANTS AS DETAILED. ALL HYDRANTS SHALL BE SAFETY YELLOW IN COLOR FROM THE MANUFACTURER. ACCEPTABLE FIRE HYDRANTS SHALL BE W & H, MUELLER AND AMERICAN DARLING.
10. FULL LENGTH PIPE SECTIONS ARE REQUIRED BEFORE AND AFTER ALL FITTINGS.
11. ALL VALVES NOTED ON THESE PLANS SHALL BE GATE VALVES.
12. ALL EXISTING WATER LINES NOTED FOR ABANDONMENT ON THIS PROJECT SHALL BE COMPLETELY DISCONNECTED FROM THE EXISTING SYSTEM AND CAPPED.
13. PRESSURE TESTS WILL BE REQUIRED ON ALL WATER MAIN INSTALLED.
14. ALL NEW CONSTRUCTION TO BE FLUSHED WITH CLOSE SUPERVISION OF THE SYSTEM OPERATOR.
15. ALL BACT-SAMPLES SHALL BE TAKEN BY THE SYSTEM OPERATOR OR HIS REPRESENTATIVES. ANY AND ALL SAMPLING FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
16. WATER SERVICE NOTES:
  - 16.1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING WATER METERS ALONG ALL STREETS WITHIN THE PROJECT AREA WHICH ARE NOTED FOR WATER MAIN CONSTRUCTION. SOME METERS MAY NOT HAVE BEEN LOCATED DURING THE DESIGN PHASE OF THIS PROJECT DUE TO FIELD CONDITIONS. HOWEVER, ALL METERS WITHIN THE PROJECT AREA SHALL BE RECONNECTED.
  - 16.2. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONNECTING ANY SERVICE, WHICH IS PRESENTLY CONNECTED TO AN EXISTING WATER MAIN THAT IS NOTED FOR ABANDONMENT ON THIS PROJECT, TO AN ADJACENT PROPOSED WATER LINE (SEE PLAN SHEETS).
  - 16.3. A CRITERIA FOR THIS PROJECT IS TO ELIMINATE UNDER SIZE (UNDER 4" DIAMETER) WATER MAINS WITHIN THE PROJECT AREA. WATER SERVICES SHALL BE RECONNECTED TO AN ADJACENT EXISTING LARGE WATER MAIN (4" DIAMETER AND OVER).
  - 16.4. SERVICE CONNECTIONS SHALL INCLUDE (BUT MAY NOT BE LIMITED TO) TAPPING SADDLE, CORPORATION STOP, SERVICE LINE (LENGTH AS REQUIRED) OF MATCHING SIZE AND/OR ALL NECESSARY FITTINGS. SERVICE CONNECTION SHALL INCLUDE CONNECTION TO THE MAIN AND THE CONNECTION TO NEW OR EXISTING WATER METERS.
  - 16.5. NEW SERVICE CONNECTIONS SHALL BE INSTALLED AS ONE CONTINUOUS PIPE FROM THE WATER MAIN TO THE METER. SPLICES SHALL NOT BE ALLOWED. THE ENTIRE SERVICE BETWEEN THE METER AND THE NEW MAIN SHALL BE REPLACED. SERVICE LINE BORES SHALL BE PAID SEPARATELY.
  - 16.6. METERS SHALL ONLY BE INSTALLED WHERE NOTED ON THE PLANS AND SHALL BE PAID SEPARATELY. METERS SHALL MATCH SERVICE LINE SIZE AND BE OF BRAND/TYPE SPECIFIED BY THE OWNER.
  - 16.7. THE CONTRACTOR SHALL TAKE NOTE THAT THERE ARE SERVICES SHOWN ON THE PLANS TO BE DISCONNECTED FROM EXISTING WATER MAINS AND RECONNECTED TO AN EXISTING WATER MAIN. THIS SERVICE CONNECTION ITEM SHALL BE PAID UNDER "RECONNECTION OF WATER SERVICE" AND SHALL INCLUDE TAPPING SADDLE, CORPORATION STOP, SERVICE LINE (LENGTH AS REQUIRED) OF MATCHING SIZE AND/OR ALL NECESSARY FITTINGS. SERVICE CONNECTION SHALL INCLUDE CONNECTION TO THE EXISTING MAIN AND THE CONNECTION TO THE EXISTING METER. THE ENTIRE SERVICE BETWEEN THE METER AND THE EXISTING MAIN SHALL BE REPLACED. SERVICE LINE BORES SHALL BE PAID SEPARATELY.
  - 16.8. ALL NEW WATER METERS SHALL BE BADGER RADIO READ. ALL SERVICE FITTINGS SHALL BE FORD BRAND, ONLY.

1. ALL EXISTING MANHOLES NOTED TO BE REMOVED SHALL BE REMOVED ENTIRELY. REMOVED ITEMS SHALL BE DISPOSED OF APPROPRIATELY.
2. ALL EXISTING MANHOLES NOTED TO BE ABANDONED, SHALL BE PAID FOR PER EACH AND SHALL BE MODIFIED AS FOLLOWS:
  - 2.1. REMOVE 36" OF SANITARY WASTE.
  - 2.2. REMOVE COVER, FRAME AND THE TOP 36" OF MANHOLE STRUCTURE. DISPOSE OF REMOVED OBJECTS APPROPRIATELY.
  - 2.3. FILL THE MANHOLE WITH SAND.
  - 2.4. CAP THE MANHOLE WITH 3000 PSI, NON-REINFORCED CONCRETE (6" DEPTH).
  - 2.5. BACKFILL WITH NATIVE SOIL MATERIAL AND/OR FILL MATERIAL (CL B9) AND COMPACT. GRADE TO DRAIN AS REQUIRED. GRASS DISTURBED AREA OR REPAIR PAVEMENT AREAS.
3. ALL EXISTING SEWER PIPES NOTED TO BE REMOVED, SHALL BE REMOVED ENTIRELY. (NO SEPARATE PAY)
4. ALL EXISTING SEWER PIPES NOTED TO BE ABANDONED SHALL BE PAID FOR BY LINEAR FOOT AND SHALL BE MODIFIED AS FOLLOWS:
  - 4.1. REMOVE AND DISPOSE OF SANITARY WASTE.
  - 4.2. FILL THE PIPE WITH FLOWABLE FILL.
  - 4.3. PLUG ENDS.
5. WHERE ABANDONED SEWER PIPES AND/OR MANHOLES CONFLICT WITH THE NEW CONSTRUCTION, THE EXISTING PIPE OR MANHOLE SHALL BE REMOVED, UNLESS NOTED OTHERWISE OR DIRECTED BY THE ENGINEER.

|        |                           |       |                             |       |                                   |
|--------|---------------------------|-------|-----------------------------|-------|-----------------------------------|
| A/C    | — AIR CONDITIONER         | HDPE  | — HIGH DENSITY POLYETHYLENE | R     | — RADIUS                          |
| &      | — AND                     | HYD   | — HYDRANT                   | RCAP  | — REINFORCED CONCRETE ARCHED PIPE |
| APPURT | — APPURTENANCES           | INCL  | — INCLUDING                 | RCP   | — REINFORCED CONCRETE PIPE        |
| ARCH   | — ARCHITECTURAL           | INV   | — INVERT                    | REQ'D | — REQUIRED                        |
| ASPLT  | — ASPHALT                 | IRR   | — IRRIGATION                | REINF | — REINFORCED                      |
| AVE    | — AVENUE                  | JNT   | — JOINT                     | ROW   | — RIGHT OF WAY                    |
| BLDG   | — BUILDING                | LF    | — LINEAR FEET               | S     | — SOUTH                           |
| ℄      | — CENTERLINE              | LVM   | — LOOSE VOLUME MEASURE      | SSCO  | — SAN SWR CLEAN OUT               |
| CL     | — CLASS                   | LBS   | — POUNDS                    | SAN   | — SANITARY                        |
| CONC   | — CONCRETE                | MAT'L | — MATERIAL                  | SCH   | — SCHEDULE                        |
| CPP    | — CORRUGATED PLASTIC PIPE | MAX   | — MAXIMUM                   | SE    | — SOUTHEAST                       |
| DIA    | — DIAMETER                | MH    | — MANHOLE                   | SVC   | — SERVICE                         |
| DRV    | — DRIVE                   | MIN   | — MINIMUM                   | SDR   | — STANDARD DIAMETER RATIO         |
| DI     | — DUCTILE IRON            | MM    | — MILLIMETER                | SPECS | — SPECIFICATIONS                  |
| E      | — EAST                    | MOD   | — MODIFIED                  | SQ    | — SQUARE                          |
| ETC    | — ETCETERA                | N     | — NORTH                     | ST    | — STREET                          |
| EXIST  | — EXISTING                | NE    | — NORTHEAST                 | STA   | — STATION                         |
| EXP    | — EXPANSION               | NW    | — NORTHWEST                 | SW    | — SOUTHWEST                       |
| FT     | — FEET                    | NIC   | — NOT IN CONTRACT           | SWR   | — SEWER                           |
| FFE    | — FINISH FLOOR ELEVATION  | No.   | — NUMBER                    | SY    | — SQUARE YARD                     |
| FL     | — FLOW LINE               | OC    | — ON CENTER                 | TYP   | — TYPICAL                         |
| GP     | — GROUP                   | PVMNT | — PAVEMENT                  | W     | — WEST                            |
| GRVL   | — GRAVEL                  | PRKG  | — PARKING                   | W/    | — WITH                            |
| GALV   | — GALVANIZED              | PIV   | — POST INDICATOR VALVE      | W/O   | — WITHOUT                         |
|        |                           | PSI   | — POUNDS PER SQUARE INCH    |       |                                   |
|        |                           | PVC   | — POLYVINYL CHLORIDE PIPE   |       |                                   |
|        |                           | ℄     | — PROPERTY LINE             |       |                                   |

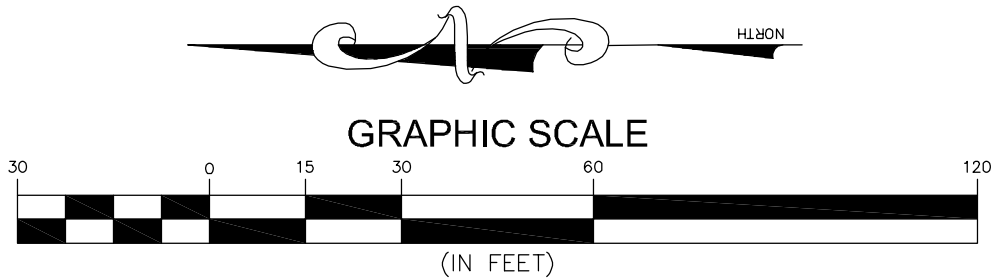
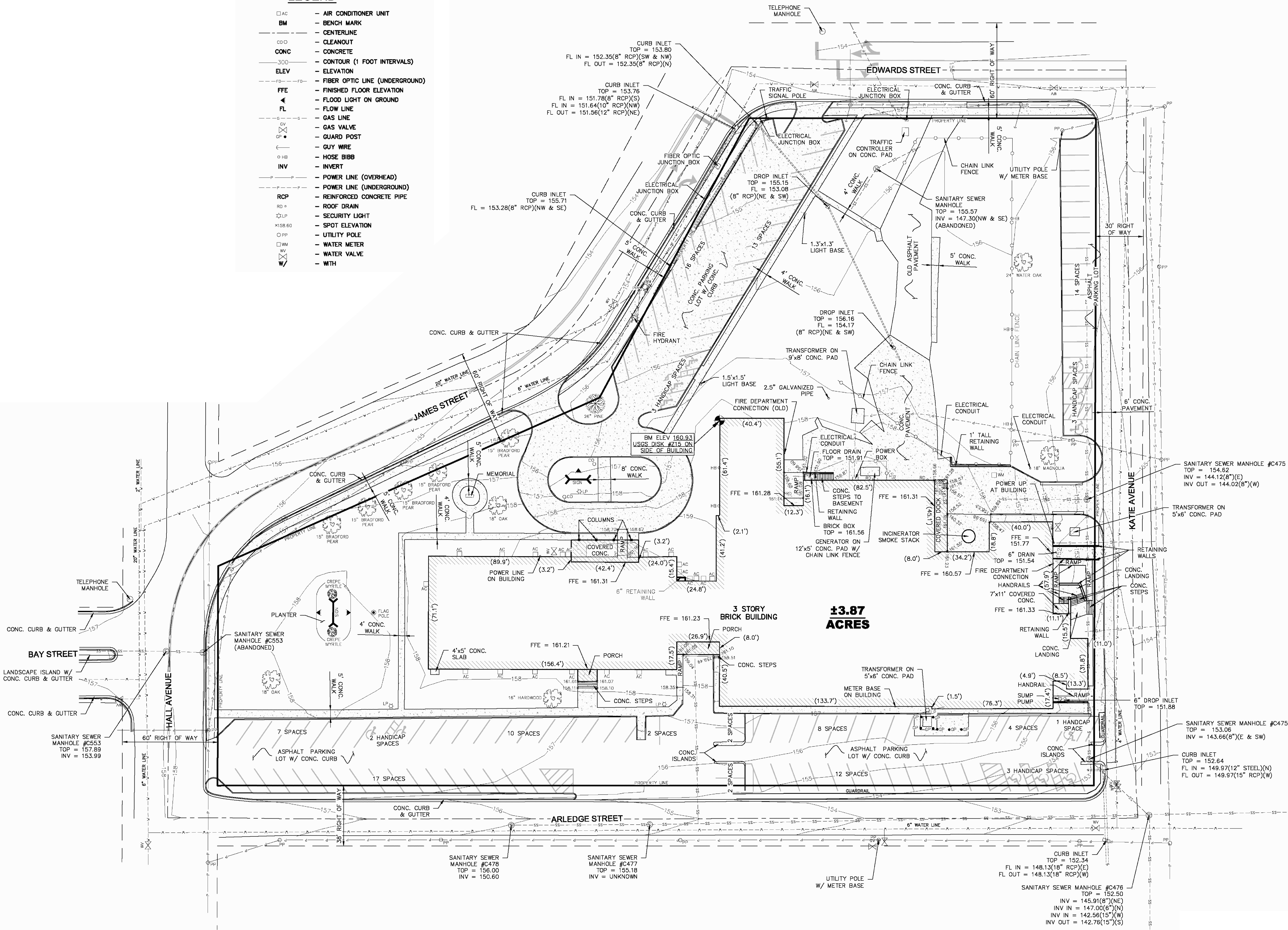
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|--|-------------------------------|
|  | - CENTER LINE                 |
|  | - ELECTRICAL PANEL/BOX        |
|  | - FENCE                       |
|  | - FENCE POST                  |
|  | - FIBER OPTIC BOX             |
|  | - FIBER OPTIC PEDESTAL        |
|  | - FIBER OPTIC INDICATOR POST  |
|  | - FIRE HYDRANT                |
|  | - GAS INDICATOR POST          |
|  | - GAS LINE (EXIST)            |
|  | - GAS LINE (PROPOSED)         |
|  | - GAS METER                   |
|  | - GAS VALVE                   |
|  | - GATE POST                   |
|  | - GENERATOR                   |
|  | - GUARD POST                  |
|  | - LIGHT ON POLE               |
|  | - PROPERTY LINE               |
|  | - SAN SWR CLEAN-OUT           |
|  | - SAN SWR LINE (EXIST)        |
|  | - SAN SWR LINE (PROPOSED)     |
|  | - SAN SWR MANHOLE             |
|  | - SIGN                        |
|  | - SPOT GRADE                  |
|  | - STORM DRAIN                 |
|  | - STORM DRAIN MANHOLE         |
|  | - TELEPHONE PEDESTAL          |
|  | - TRANSFORMER                 |
|  | - UNDER DRAIN                 |
|  | - UTILITY LINES (UNDERGROUND) |
|  | - UTILITY LINES (OVERHEAD)    |
|  | - UTILITY LINES (OVERHEAD)    |
|  | - UTILITY POLE                |
|  | - UTILITY POLE                |
|  | - UTILITY POLE GUY WIRE       |
|  | - UTILITY SERVICE POLE        |
|  | - WATER LINE (EXIST)          |
|  | - WATER LINE (PROPOSED)       |
|  | - WATER METER                 |
|  | - WATER VALVE                 |

|                                                                                                                                                                                                                    |      |                     |             |
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| No.                                                                                                                                                                                                                | DATE | DESCRIPTION         | BY          |
| <b>GENERAL NOTES &amp; LEGENDS</b>                                                                                                                                                                                 |      |                     |             |
| <b>INFRASTRUCTURE REHABILITATION<br/>CITY OF HATTIESBURG<br/>FORREST COUNTY, MISSISSIPPI</b>                                                                                                                       |      |                     |             |
|  <p>Engineering Progress</p> <p>301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com</p> |      |                     |             |
| Drawn by: RES\BT                                                                                                                                                                                                   |      | Checked by: SEM     | Scale: NONE |
| Date: 05-04-2018                                                                                                                                                                                                   |      | Working No.     GN1 |             |
| Drawing No.: 11258                                                                                                                                                                                                 |      | Sheet No.     2     |             |



LEGEND

- AC - AIR CONDITIONER UNIT
- BM - BENCH MARK
- CL - CENTERLINE
- CO - CLEANOUT
- CONC - CONCRETE
- CONTOUR (1 FOOT INTERVALS)
- ELEV - ELEVATION
- FO - FIBER OPTIC LINE (UNDERGROUND)
- FFE - FINISHED FLOOR ELEVATION
- FL - FLOOD LIGHT ON GROUND
- FL - FLOW LINE
- FL - GAS LINE
- FL - GAS VALVE
- GP - GUARD POST
- HB - HOSE BIBB
- INV - INVERT
- PO - POWER LINE (OVERHEAD)
- PO - POWER LINE (UNDERGROUND)
- RCP - REINFORCED CONCRETE PIPE
- RD - ROOF DRAIN
- SL - SECURITY LIGHT
- SP - SPOT ELEVATION
- UP - UTILITY POLE
- WM - WATER METER
- WV - WATER VALVE
- W - WITH



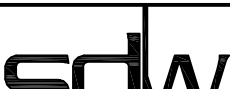
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TOPOGRAPHIC MAP

INFRASTRUCTURE REHABILITATION

CITY OF HATTIESBURG

FORREST COUNTY, MISSISSIPPI

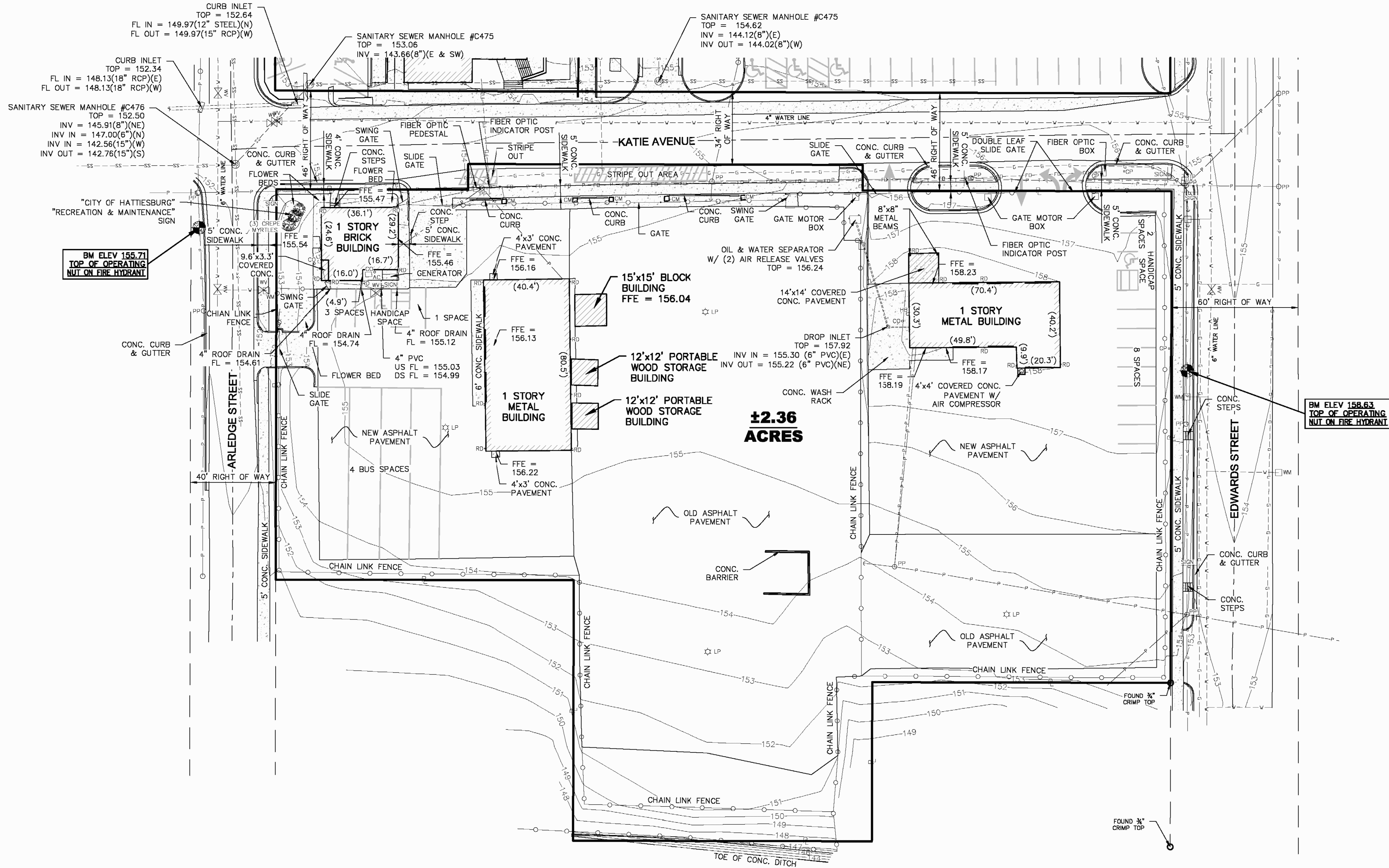
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| 301 Second Ave., Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   <a href="http://sdw.com">sdw.com</a> |                          |                 |
| Drawn by: RES\BT                                                                                                    | Checked by: SEM          | Scale: AS NOTED |
| Date: 05-04-2018                                                                                                    | Working No. <u>TOP01</u> |                 |
| Drawing No.: 11258                                                                                                  | Sheet No. <u>3</u>       |                 |

SOURCE INFORMATION:

THE MAP SHOWN HEREON IS BASED ON THE TOPOGRAPHIC MAP PERFORMED BY SDW ENGINEERS ON 12-11-2012 (DWG No. 1235-060)

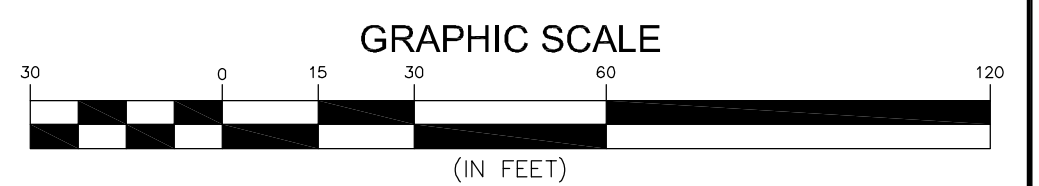
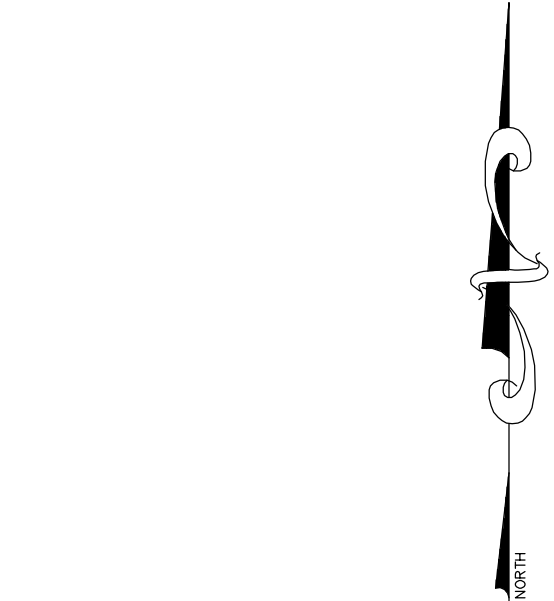


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LEGEND

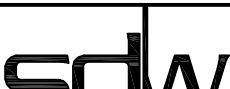
- AC — AIR CONDITIONER UNIT
- BM — BENCH MARK
- CM — BRICK COLUMN
- CL — CENTERLINE
- CO — CLEANOUT
- CONC — CONCRETE
- 300 — CONTOUR (1 FOOT INTERVALS)
- ELEV — ELEVATION
- FB — FIBER OPTIC LINE (UNDERGROUND)
- FFE — FINISHED FLOOR ELEVATION
- FL — FLOW LINE
- G — GAS LINE
- 4"x4" CONC. GUARD POST
- GP — GUY WIRE
- HB — HOSE BIBB
- INV — INVERT
- PVC — POLYVINYL CHLORIDE PIPE
- P — POWER LINE (OVERHEAD)
- P — POWER LINE (UNDERGROUND)
- PL — PROPERTY LINE
- RD — ROOF DRAIN
- SL — SECURITY LIGHT
- T — TELEPHONE LINE (UNDERGROUND)
- TP — TELEPHONE PEDESTAL
- U — UTILITY POLE
- WM — WATER METER
- WV — WATER VALVE
- W — WITH



| NO. | DATE | DESCRIPTION | BY |
|-----|------|-------------|----|
|-----|------|-------------|----|

TOPOGRAPHIC MAP CONTINUED

INFRASTRUCTURE REHABILITATION  
CITY OF HATTIESBURG  
FORREST COUNTY, MISSISSIPPI

|                                                                                                                     |  |                          |             |
|---------------------------------------------------------------------------------------------------------------------|--|--------------------------|-------------|
| <br>Engineering Progress       |  |                          |             |
| 301 Second Ave., Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   <a href="http://sdw.com">sdw.com</a> |  |                          |             |
| Drawn by: RES\BT                                                                                                    |  | Checked by: SEM          | Scale: NONE |
| Date: 05-04-2018                                                                                                    |  | Working No. <u>TOP02</u> |             |
| Drawing No.: 11258                                                                                                  |  | Sheet No. <u>4</u>       |             |

SOURCE INFORMATION:  
THE MAP SHOWN HEREON IS BASED ON THE  
TOPOGRAPHIC MAP PERFORMED BY SDW  
ENGINEERS ON 12-11-2012 (DWG No. 1235-060)





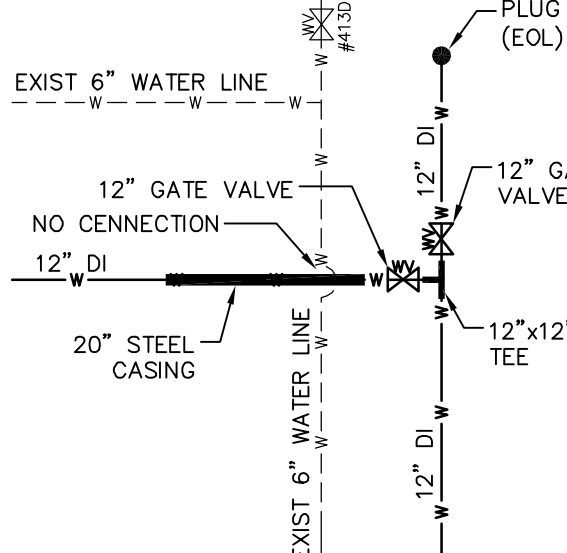
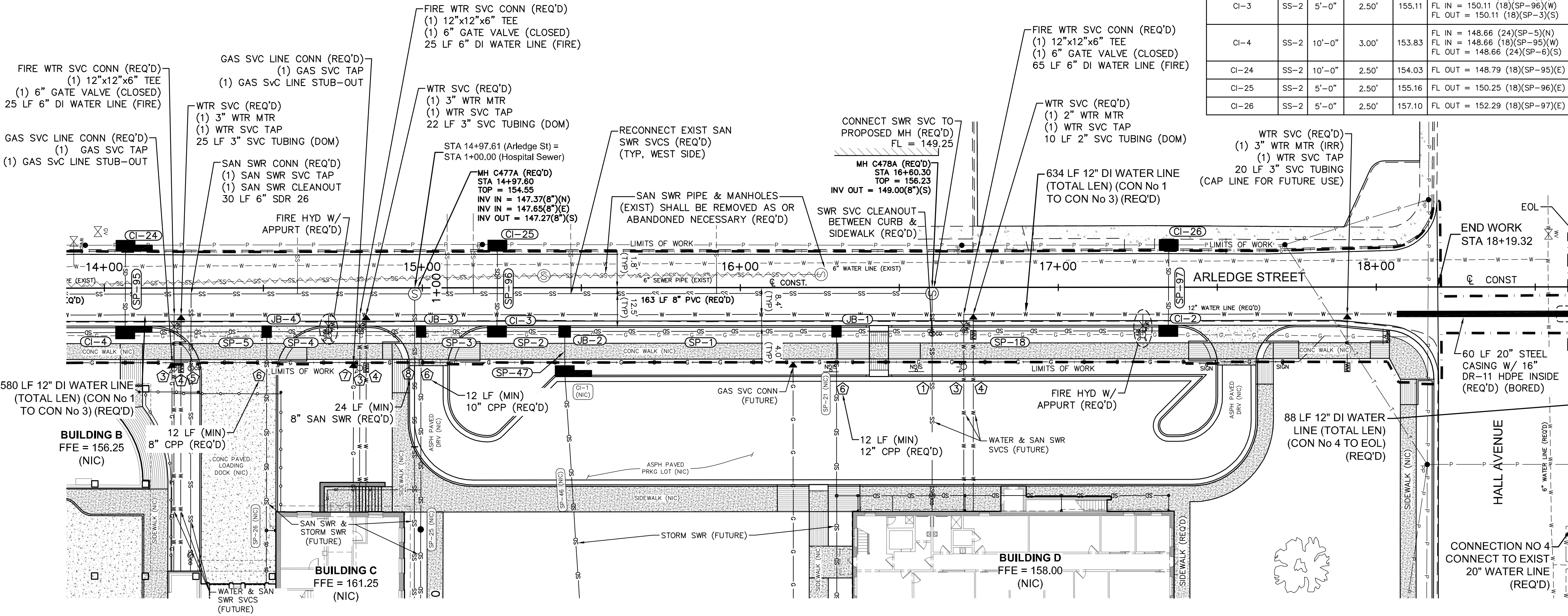


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| Improvements Key |                                                            |
|------------------|------------------------------------------------------------|
| Key              | Note                                                       |
| 1                | INSTALL SAN SWR SVCS FIVE (5) FEET PAST SIDEWALK & CAP     |
| 2                | INSTALL WTR SVC FIVE (5) FEET PAST SIDEWALK & CAP          |
| 3                | INSTALL FIRE WTR SVC FIVE (5) FEET PAST SW & CAP           |
| 4                | INSTALL WTR SVC LINE FIVE (5) FEET PAST MTR & CAP          |
| 5                | INSTALL SAN SWR SVC LINE FIVE (5) FEET PAST CLEANOUT & CAP |
| 6                | INSTALL STORM SWR FIVE (5) FEET PAST SIDEWALK (MIN) & PLUG |
| 7                | INSTALL GAS SVC LINE FIVE (5) FEET PAST CONNECTION (MIN)   |
| 8                | INSTALL 8" SAN SWR LINE FIVE (5) FEET PAST SIDEWALK & CAP  |

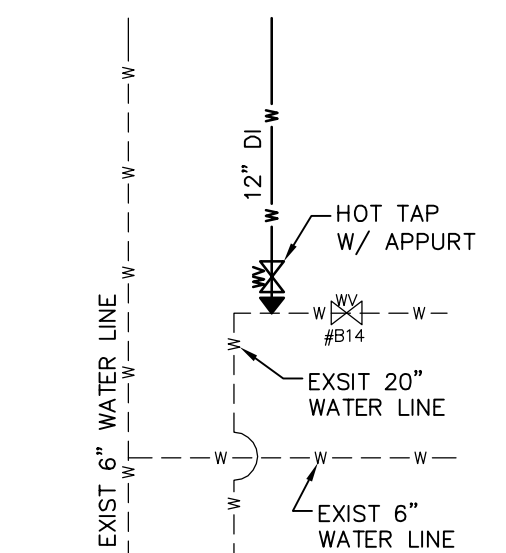
| Pipe Table |      |      |        |       |  |
|------------|------|------|--------|-------|--|
| Pipe Name  | Size | Type | Length | Slope |  |
| SP-1       | 18"  | RCP  | 84 LF  | 1.00% |  |
| SP-2       | 18"  | RCP  | 18 LF  | 1.14% |  |
| SP-3       | 18"  | RCP  | 21 LF  | 1.00% |  |
| SP-4       | 24"  | RCP  | 47 LF  | 0.50% |  |
| SP-5       | 24"  | RCP  | 42 LF  | 0.50% |  |
| SP-18      | 18"  | RCP  | 101 LF | 0.50% |  |
| SP-95      | 18"  | RCP  | 25 LF  | 0.50% |  |
| SP-96      | 18"  | RCP  | 25 LF  | 0.50% |  |
| SP-97      | 18"  | RCP  | 25 LF  | 0.50% |  |

| Structure Table |        |                                                                                                 |
|-----------------|--------|-------------------------------------------------------------------------------------------------|
| Structure Name  | Height | Inverts                                                                                         |
| JB-1            | Min.   | FL IN = 151.63 (18)(SP-18)(N)<br>FL IN = 152.13 (12)(SP-21)(E)<br>FL OUT = 151.42 (18)(SP-1)(S) |
| JB-2            | Min.   | FL IN = 150.56 (18)(SP-1)(N)<br>FL IN = 150.92 (18)(SP-47)(E)<br>FL OUT = 150.35 (18)(SP-2)(S)  |
| JB-3            | Min.   | FL IN = 149.87 (18)(SP-3)(N)<br>FL IN = 150.54 (10)(SP-25)(E)<br>FL OUT = 149.37 (24)(SP-4)(S)  |
| JB-4            | Min.   | FL IN = 149.13 (24)(SP-4)(N)<br>FL IN = 150.46 (8)(SP-26)(E)<br>FL OUT = 148.88 (24)(SP-5)(S)   |



CONNECTION No 3  
(ARLEDGE & HALL WATER CONNECTION)  
SCALE: NONE

CONNECTION No 3  
CONNECT PROPOSED  
12" WATER LINES (REQ'D)



CONNECTION No 4  
(ARLEDGE & HALL WATER CONNECTION)  
SCALE: NONE

CONNECTION No 4  
CONNECT TO EXIST  
20" WATER LINE  
(REQ'D)

GENERAL NOTES:

- ALL SAN SWR SVCS (EXIST) ON THIS SIDE OF STREET SHALL BE LOCATED PRIOR TO CONSTRUCTION AND CONNECTED TO PROPOSED SEWER MAIN (REQ'D)
- ALL NEW SAN SWR SVCS SHALL BE A 0.50% MIN GRADE
- THE CONTRACTOR SHALL COORDINATE THE RELOCATION OF GAS LINES WITH THE UTILITY OWNER THAT ARE IN CONFLICT WITH CONSTRUCTION OF THE PROPOSED SAN SWR & STORM SWR

INLET & JUNCTION BOX NOTES:

- THE FLOW LINE ELEVATIONS SHOWN IN THESE TABLES ARE PIPE ELEVATIONS. THE CONTRACTOR SHALL MAKE WHATEVER ADJUSTMENTS AND CALCULATIONS NECESSARY TO CONSTRUCT THE STRUCTURES TO THE PROPER INVERT ELEVATIONS. ALL INVERTS SHALL BE GROUTED TO INSURE PROPER FLOW AND PREVENT SEDIMENT AND DEBRIS ACCUMULATION.
- ALL CONCRETE INLETS SHALL HAVE CAST-IN-PLACE TOPS. INLET TOPS & GRATES SHALL BE FORMED AND SET TO MATCH FINISHED GRADES SHOWN ON THE GRADING PLANS. ABSOLUTELY NO PRECAST INLET TOP SECTIONS SHALL BE ALLOWED ON THIS PROJECT.
- CUT SHEETS FOR ALL DRAINAGE STRUCTURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION. CUT SHEETS SHALL SHOW THE TOP GRADES OF THE STRUCTURE AS WELL AS THE SURROUNDING AREA OF THE STRUCTURE.

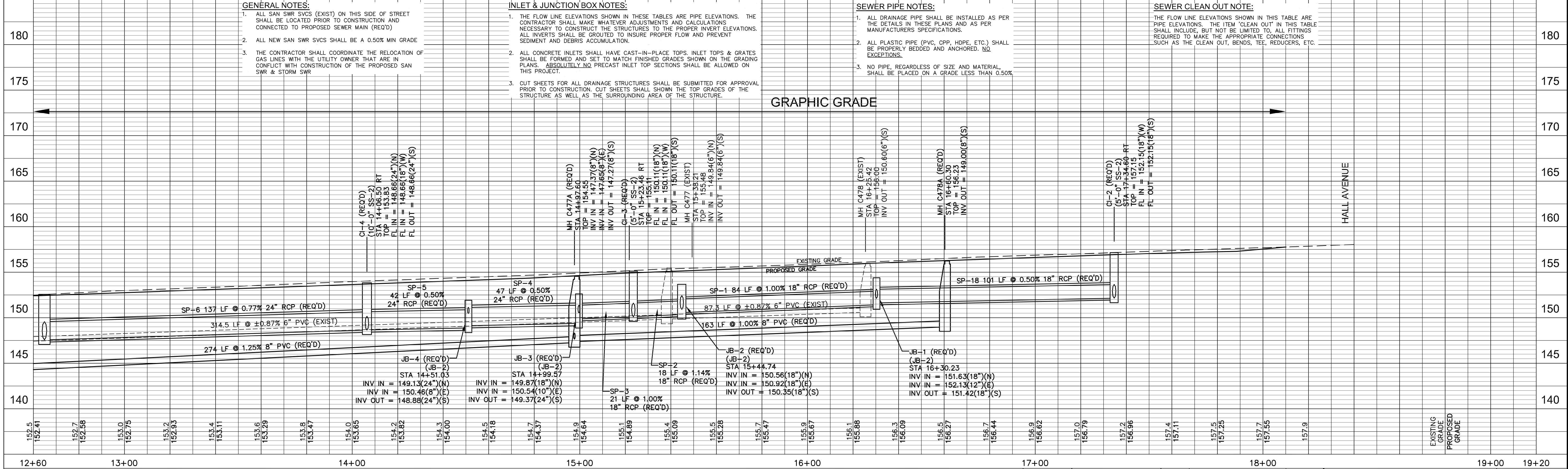
SEWER PIPE NOTES:

- ALL DRAINAGE PIPE SHALL BE INSTALLED AS PER THE DETAILS IN THESE PLANS AND AS PER MANUFACTURERS SPECIFICATIONS.
- ALL PLASTIC PIPE (PVC, CPP, HDPE, ETC.) SHALL BE PROPERLY BEDDED AND ANCHORED. NO EXCEPTIONS.
- NO PIPE, REGARDLESS OF SIZE AND MATERIAL, SHALL BE PLACED ON A GRADE LESS THAN 0.50%.

SEWER CLEAN OUT NOTE:

- THE FLOW LINE ELEVATIONS SHOWN IN THIS TABLE ARE PIPE ELEVATIONS. THE ITEM 'CLEAN OUT' IN THIS TABLE SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL FITTINGS REQUIRED TO MAKE THE APPROPRIATE CONNECTIONS SUCH AS THE CLEAN OUT, BENDS, TEE, REDUCERS, ETC.

GRAPHIC GRADE



ARLEDGE STA 12+60 - STA 18+40

INFRASTRUCTURE REHABILITATION  
HATTIESBURG, MISSISSIPPI

DRAWN BY: BT  
DATE: 05-04-2018  
CHECKED BY: SEM

sdw  
Engineering Progress

301 Second Ave., Hattiesburg, MS 39401 | (p) 601.544.1821 | (f) 601.544.0501 | sd-w.com

DRAWING NO.  
11258  
WORKING No. PnP 2  
SHEET NO. 6



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| Structure Table |      |        |           |        |                                                                                                                                   |
|-----------------|------|--------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------|
| Structure Name  | Type | Length | Width (W) | Top    | Inverts                                                                                                                           |
| CI-7            | SS-2 | 5'-0"  | 4.00'     | 153.11 | FL IN = 147.46 (24)(SP-7)(NW)<br>FL IN = 147.96 (18)(SP-48)(S)<br>FL IN = 148.24 (15)(SP-50)(NE)<br>FL OUT = 146.96 (30)(SP-8)(E) |
| CI-8            | SS-2 | 5'-0"  | 2.50'     | 153.10 | FL IN = 149.02 (8)(SP-64)(SE)<br>FL OUT = 148.19 (18)(SP-48)(N)                                                                   |
| CI-10           | SS-2 | 5'-0"  | 3.00'     | 155.34 | FL IN = 149.12 (18)(SP-11)(E)<br>FL IN = 150.03 (18)(SP-49)(S)<br>FL OUT = 149.12 (18)(SP-12)(W)                                  |
| CI-11           | SS-2 | 10'-0" | 3.50'     | 154.87 | FL IN = 145.93 (30)(SP-9)(W)<br>FL IN = 147.21 (18)(SP-12)(E)<br>FL OUT = 145.93 (44)(SP-10)(S)                                   |

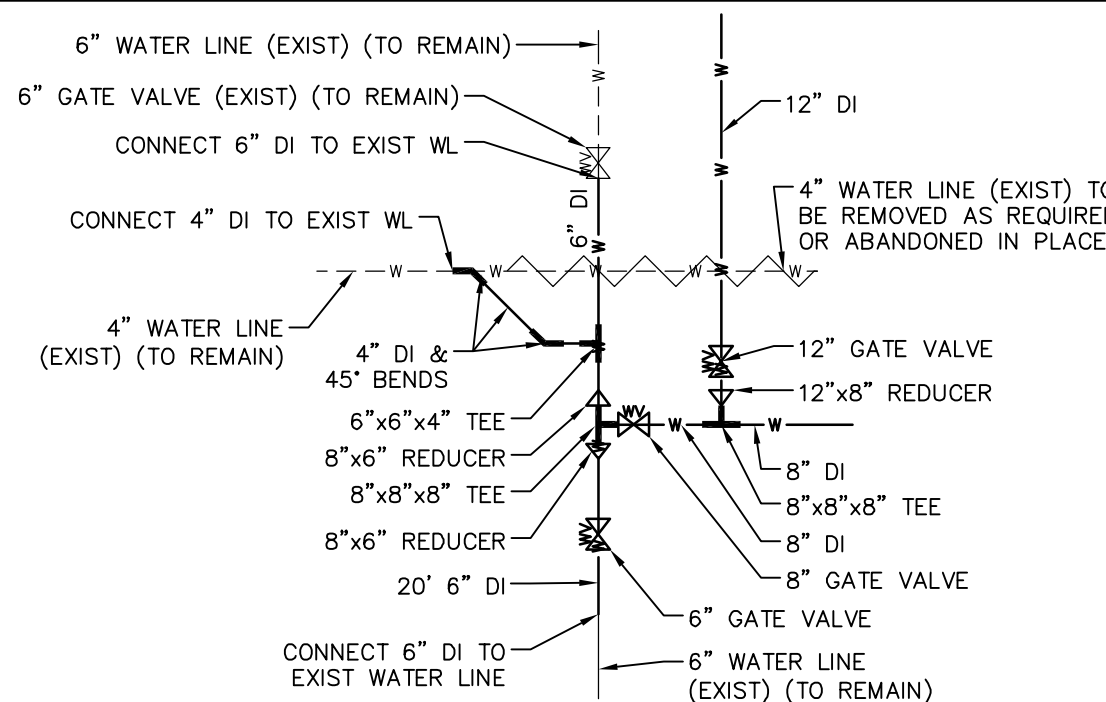
| Structure Table |      |        |           |        |                                                                 |
|-----------------|------|--------|-----------|--------|-----------------------------------------------------------------|
| Structure Name  | Type | Length | Width (W) | Top    | Inverts                                                         |
| CI-12           | SS-2 | 5'-0"  | 2.50'     | 155.34 | FL OUT = 150.34 (18)(SP-49)(N)                                  |
| CI-14           | SS-2 | 10'-0" | 2.50'     | 156.83 | FL IN = 145.79 (44)(SP-65)(S)<br>FL OUT = 145.79 (44)(SP-66)(S) |

| Structure Table |        |                                                                                                |
|-----------------|--------|------------------------------------------------------------------------------------------------|
| Structure Name  | Height | Inverts                                                                                        |
| JB-6            | Min.   | FL IN = 146.41 (30)(SP-8)(W)<br>FL IN = 147.22 (24)(SP-17)(N)<br>FL OUT = 146.41 (30)(SP-9)(E) |

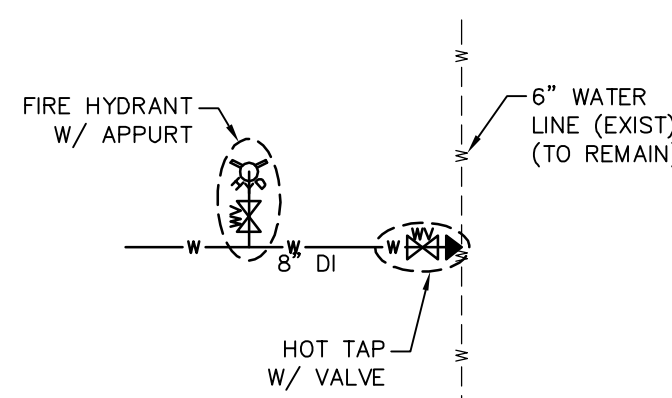
| Pipe Table |      |      |        |       |  |
|------------|------|------|--------|-------|--|
| Pipe Name  | Size | Type | Length | Slope |  |
| SP-7       | 24"  | RCP  | 17 LF  | 0.50% |  |
| SP-8       | 30"  | RCP  | 107 LF | 0.50% |  |
| SP-9       | 30"  | RCP  | 91 LF  | 0.50% |  |
| SP-11      | 18"  | RCP  | 70 LF  | 1.00% |  |
| SP-12      | 18"  | RCP  | 91 LF  | 2.00% |  |
| SP-17      | 24"  | RCP  | 11 LF  | 2.00% |  |
| SP-48      | 18"  | RCP  | 29 LF  | 0.75% |  |
| SP-49      | 18"  | RCP  | 29 LF  | 1.00% |  |
| SP-50      | 15"  | RCP  | 15 LF  | 1.00% |  |
| SP-64      | 8"   | CPP  | 14 LF  | 2.00% |  |

| Pipe Table |         |      |        |       |  |
|------------|---------|------|--------|-------|--|
| Pipe Name  | Size    | Type | Length | Slope |  |
| SP-10      | 44"x27" | RCAP | 30 LF  | 0.50% |  |
| SP-66      | 44"x27" | RCAP | 74 LF  | 0.50% |  |

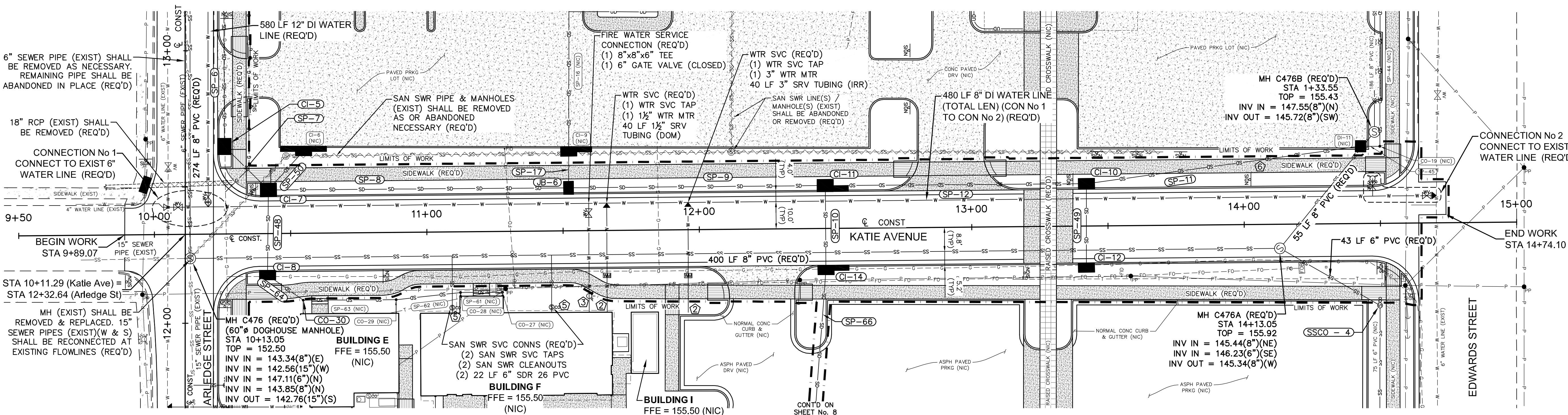
| Improvements Key |                                                            |
|------------------|------------------------------------------------------------|
| Key              | Note                                                       |
| 1                | INSTALL SAN SWR SVCS FIVE (5) FEET PAST SIDEWALK & CAP     |
| 2                | INSTALL WTR SVC FIVE (5) FEET PAST SIDEWALK & CAP          |
| 3                | INSTALL FIRE WTR SVC FIVE (5) FEET PAST SW & CAP           |
| 4                | INSTALL WTR SVC LINE FIVE (5) FEET PAST MTR & CAP          |
| 5                | INSTALL SAN SWR SVC LINE FIVE (5) FEET PAST CLEANOUT & CAP |
| 6                | INSTALL STORM SWR FIVE (5) FEET PAST SIDEWALK (MIN) & PLUG |
| 7                | INSTALL GAS SVC LINE FIVE (5) FEET PAST CONNECTION (MIN)   |
| 8                | INSTALL 8" SAN SWR LINE FIVE (5) FEET PAST SIDEWALK & CAP  |



**CONNECTION No 1**  
(KATIE & ARLEDGE WATER CONNECTION)  
SCALE: NONE



**CONNECTION No 2**  
(KATIE & ARLEDGE WATER CONNECTION)  
SCALE: NONE



**GENERAL NOTES:**

- ALL SAN SWR SVCS (EXIST) SHALL BE LOCATED PRIOR TO CONSTRUCTION AND CONNECTED TO PROPOSED SEWER MAIN (REQ'D)
- ALL NEW SAN SWR SVCS SHALL BE A 0.50% MIN GRADE
- THE CONTRACTOR SHALL COORDINATE THE RELOCATION OF GAS LINES WITH THE UTILITY OWNER THAT ARE IN CONFLICT WITH CONSTRUCTION OF THE PROPOSED SAN SWR & STORM SWR

**INLET & JUNCTION BOX NOTES:**

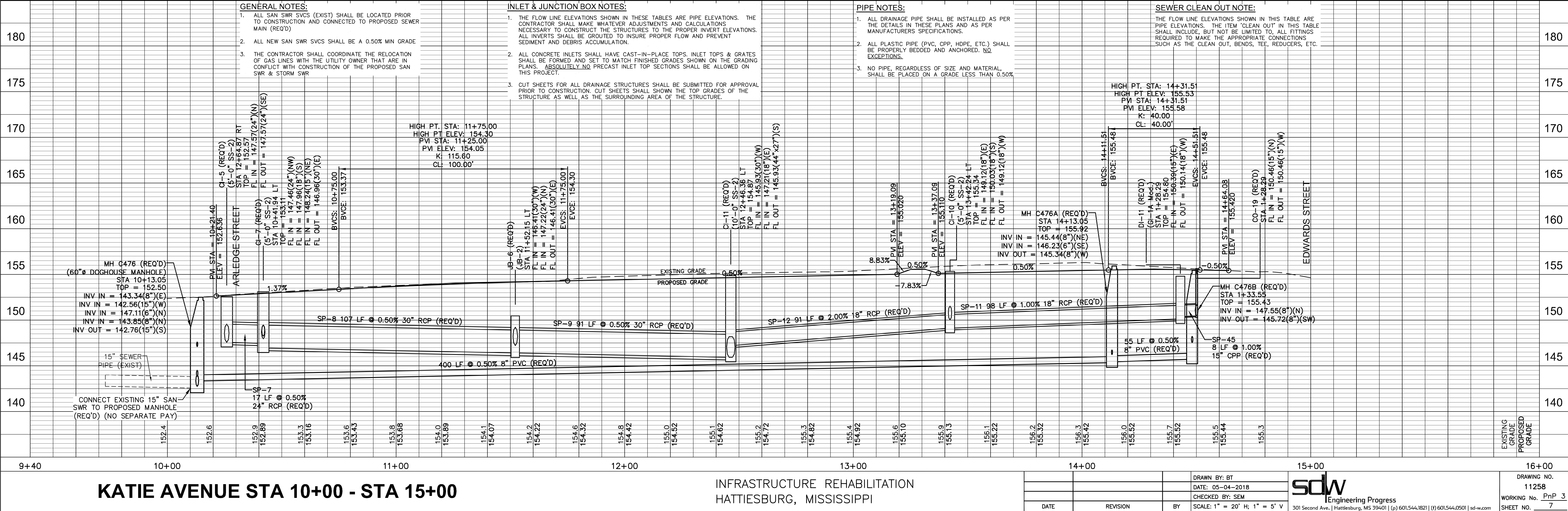
- THE FLOW LINE ELEVATIONS SHOWN IN THESE TABLES ARE PIPE ELEVATIONS. THE CONTRACTOR SHALL MAKE WHATEVER ADJUSTMENTS AND CALCULATIONS NECESSARY TO CONSTRUCT THE STRUCTURES TO THE PROPER INVERT ELEVATIONS. ALL INVERTS SHALL BE GROUTED TO INSURE PROPER FLOW AND PREVENT SEDIMENT AND DEBRIS ACCUMULATION.
- ALL CONCRETE INLETS SHALL HAVE CAST-IN-PLACE TOPS. INLET TOPS & GRATES SHALL BE FORMED AND SET TO MATCH FINISHED GRADES SHOWN ON THE GRADING PLANS. ABSOLUTELY NO PRECAST INLET TOP SECTIONS SHALL BE ALLOWED ON THIS PROJECT.
- CUT SHEETS FOR ALL DRAINAGE STRUCTURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION. CUT SHEETS SHALL SHOW THE TOP GRADES OF THE STRUCTURE AS WELL AS THE SURROUNDING AREA OF THE STRUCTURE.

**PIPE NOTES:**

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- NO PIPE, REGARDLESS OF SIZE AND MATERIAL, SHALL BE PLACED ON A GRADE LESS THAN 0.50%.

**SEWER CLEAN OUT NOTE:**

- THE FLOW LINE ELEVATIONS SHOWN IN THIS TABLE ARE PIPE ELEVATIONS. THE ITEM 'CLEAN OUT' IN THIS TABLE SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL FITTINGS REQUIRED TO MAKE THE APPROPRIATE CONNECTIONS SUCH AS THE CLEAN OUT, BENDS, TEE, REDUCERS, ETC.



**KATIE AVENUE STA 10+00 - STA 15+00**

INFRASTRUCTURE REHABILITATION  
HATTIESBURG, MISSISSIPPI

DRAWN BY: BT

DATE: 05-04-2018

CHECKED BY: SEM

SCALE: 1" = 20' H; 1" = 5' V

**sdw**

Engineering Progress

301 Second Ave., | Hattiesburg, MS 39401 | (P) 601.544.1821 | (F) 601.544.0501 | sdw.com

DRAWING NO.

11258

WORKING No. PnP 3

SHEET NO. 7



| Structure Table |      |        |           |        |                                                                 |
|-----------------|------|--------|-----------|--------|-----------------------------------------------------------------|
| Structure Name  | Type | Length | Width (W) | Top    | Inverts                                                         |
| CI-14           | SS-2 | 10'-0" | 2.50'     | 156.93 | FL IN = 145.79 (44)(SP-65)(N)<br>FL OUT = 145.79 (44)(SP-66)(S) |
| CI-15           | SS-2 | 10'-0" | 2.50'     | 154.78 | FL IN = 145.42 (44)(SP-66)(N)<br>FL OUT = 145.09 (51)(SP-67)(S) |
| CI-16           | SS-2 | 15'-0" | 2.50'     | 153.80 | FL IN = 144.67 (51)(SP-67)(N)<br>FL OUT = 144.67 (51)(SP-68)(S) |
| CI-18           | SS-2 | 10'-0" | 2.50'     | 151.25 | FL IN = 143.93 (51)(SP-69)(N)<br>FL OUT = 143.93 (51)(SP-70)(S) |

| Structure Table |        |                                                                                                  |
|-----------------|--------|--------------------------------------------------------------------------------------------------|
| Structure Name  | Height | Inverts                                                                                          |
| JB-7            | Min.   | FL IN = 144.47 (51)(SP-68)(N)<br>FL IN = 145.80 (15)(SP-71)(W)<br>FL OUT = 144.47 (51)(SP-69)(S) |

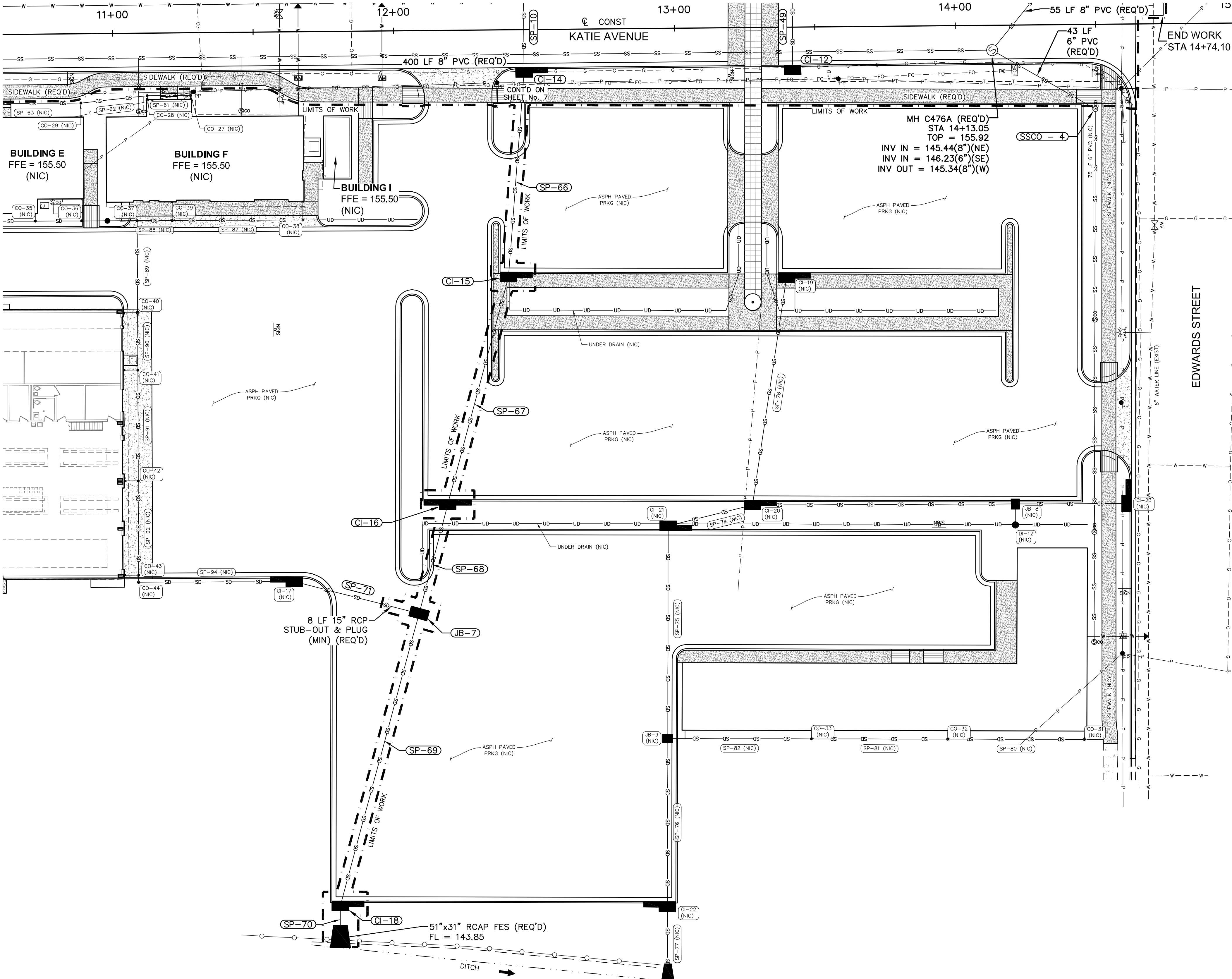
| Pipe Table |         |      |        |       |
|------------|---------|------|--------|-------|
| Pipe Name  | Size    | Type | Length | Slope |
| SP-10      | 44"x27" | RCAP | 30 LF  | 0.50% |
| SP-66      | 44"x27" | RCAP | 74 LF  | 0.50% |
| SP-67      | 51"x31" | RCAP | 84 LF  | 0.50% |
| SP-68      | 51"x31" | RCAP | 41 LF  | 0.50% |
| SP-69      | 51"x31" | RCAP | 108 LF | 0.50% |
| SP-70      | 51"x31" | RCAP | 15 LF  | 0.50% |

INLET & JUNCTION BOX NOTES:

- THE FLOW LINE ELEVATIONS SHOWN IN THESE TABLES ARE PIPE ELEVATIONS. THE CONTRACTOR SHALL MAKE WHATEVER ADJUSTMENTS AND CALCULATIONS NECESSARY TO CONSTRUCT THE STRUCTURES TO THE PROPER INVERT ELEVATIONS. ALL INVERTS SHALL BE GROUTED TO INSURE PROPER FLOW AND PREVENT SEDIMENT AND DEBRIS ACCUMULATION.
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PIPE NOTES:

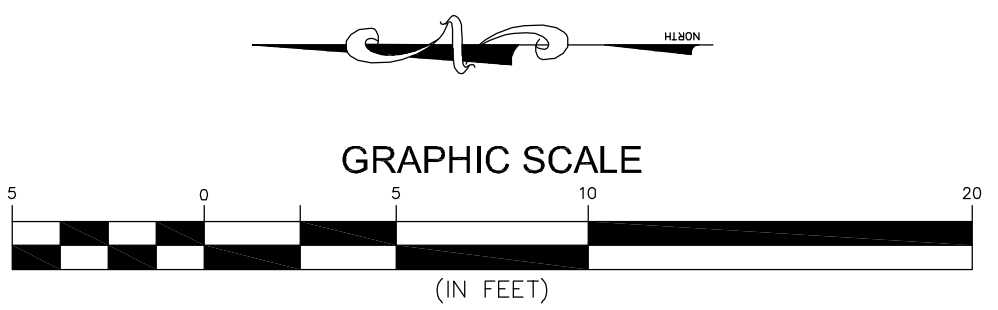
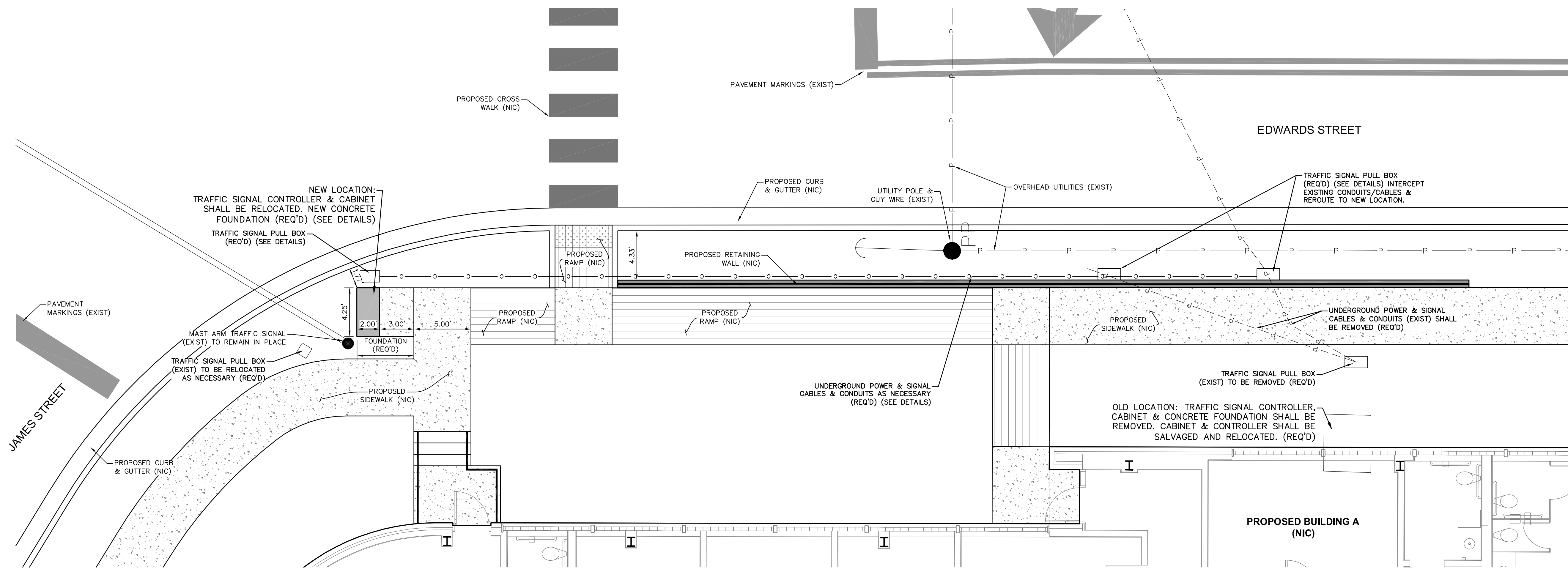
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- NO PIPE, REGARDLESS OF SIZE AND MATERIAL, SHALL BE PLACED ON A GRADE LESS THAN 0.50%.



|                                                                                                                                 |                   |                 |    |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|----|
|                                                                                                                                 |                   |                 |    |
|                                                                                                                                 |                   |                 |    |
|                                                                                                                                 |                   |                 |    |
|                                                                                                                                 |                   |                 |    |
|                                                                                                                                 |                   |                 |    |
| NO.                                                                                                                             | DATE              | DESCRIPTION     | BY |
| KATIE AVENUE STORM DISCHARGE PLAN                                                                                               |                   |                 |    |
| INFRASTRUCTURE REHABILITATION<br>CITY OF HATTIESBURG<br>FORREST COUNTY, MISSISSIPPI                                             |                   |                 |    |
| <b>sdw</b><br>Engineering Progress<br>301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |                   |                 |    |
| Drawn by: RES\BT                                                                                                                | Checked by: SEM   | Scale: 1" = 20' |    |
| Date: 03/05/2018                                                                                                                | Working No.: PLN1 |                 |    |
| Drawing No.: 11258                                                                                                              | Sheet No.: 8      |                 |    |



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|     |      |             |    |
|     |      |             |    |
| NO. | DATE | DESCRIPTION | BY |

TRAFFIC SIGNAL RELOCATION PLAN

INFRASTRUCTURE REHABILITATION  
CITY OF HATTIESBURG  
FORREST COUNTY, MISSISSIPPI

**sdw**  
Engineering Progress

301 Second Ave., | Hattiesburg, MS 39401 | (p) 601.544.1821 | (f) 601.544.0501 | sd-w.com

|                    |                 |                |
|--------------------|-----------------|----------------|
| Drawn by: RES\BT   | Checked by: SEM | Scale: 1" = 5' |
| Date: 05-04-2018   | Working No. TS1 |                |
| Drawing No.: 11258 | Sheet No. 9     |                |



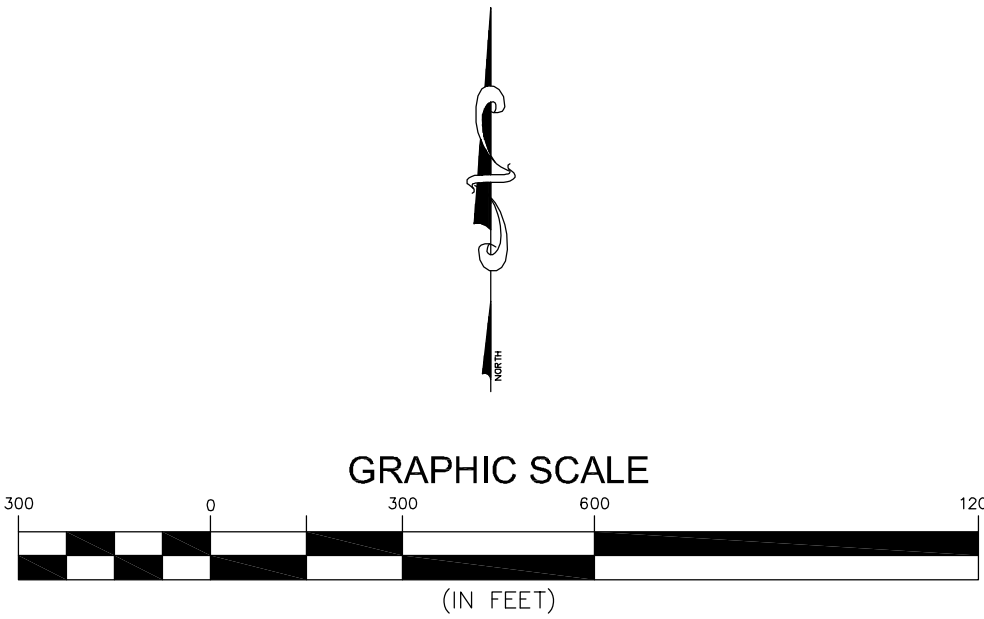
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| SIGN SCHEDULE |         |          |                                                                                      |
|---------------|---------|----------|--------------------------------------------------------------------------------------|
| NOTE          | SIZE    | SIGN No. | REMARKS                                                                              |
| 1             | 30"x24" | M4-9     | DETOUR                                                                               |
| 2             | 30"x24" | M4-9BL   | DETOUR TURN LEFT                                                                     |
| 3             | 30"x24" | M4-9BR   | DETOUR TURN RIGHT                                                                    |
| 4             | 36"x36" | W20-1    | ADVANCED ROAD WORK AHEAD                                                             |
| 5             | 36"x36" | W20-2    | ADVANCED DETOUR AHEAD                                                                |
| 6             | 30"x6"  | SD-1     | ARLEDGE ST                                                                           |
| 7             | 30"x6"  | SD-2     | KATIE AVE                                                                            |
| 8             | 60"x30" | R11-4    | ROAD CLOSED TO THRU TRAFFIC, MOUNTED ON TYPE III BARRICADE, DOUBLE FACED, 24 FT WIDE |
| 9             | 36"x36" | R1-1     | MOUNTED TO REAR OF BARRICADE                                                         |

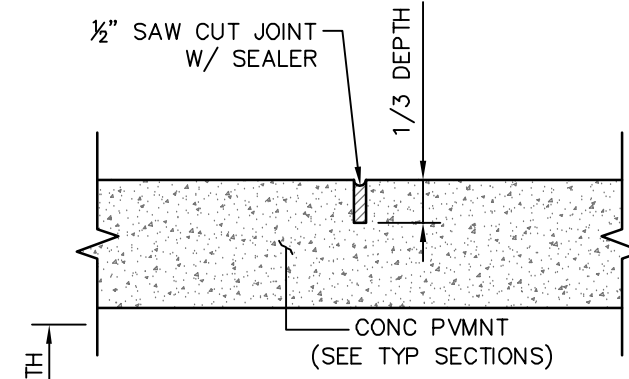
SPECIAL TRAFFIC CONTROL NOTES:

1. HALL AVENUE, JAMES STREET & EDWARDS STREET SHALL REMAIN OPEN AT ALL TIMES, EXCEPT FOR MINIMAL TEMPORARY LANE CLOSURES FOR WORK NOTED ON THE PLAN SHEETS.
2. ALL CONSTRUCTION DETOUR SIGNS AND BARRICADES SHALL BE REMOVED UPON PLACEMENT OF BASE COURSE ASPHALT.
3. ALL REMAINING CONSTRUCTION SIGNS SHALL BE REMOVED UPON COMPLETION OF THE PROJECT BUT PRIOR TO FINAL ACCEPTANCE.

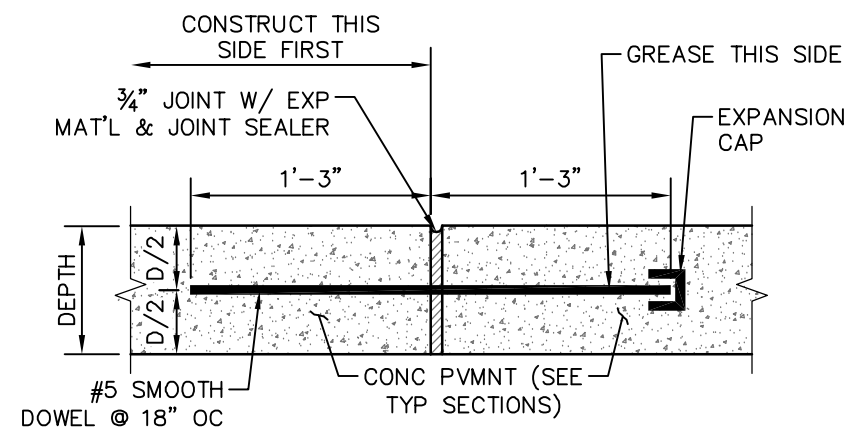


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|                                                                                                                                |      |                   |                 |
|                                                                                                                                |      |                   |                 |
| NO.                                                                                                                            | DATE | DESCRIPTION       | BY              |
| TRAFFIC CONTROL PLAN                                                                                                           |      |                   |                 |
| INFRASTRUCTURE REHABILITATION<br>CITY OF HATTIESBURG<br>FORREST COUNTY, MISSISSIPPI                                            |      |                   |                 |
| <b>sdw</b><br>Engineering Progress<br>301 Second Ave.   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |      |                   |                 |
| Drawn by: RES                                                                                                                  |      | Checked by: SEM   | Scale: AS NOTED |
| Date: 05-04-2018                                                                                                               |      | Working No. TCP 1 |                 |
| Drawing No.: 11258                                                                                                             |      | Sheet No. 10      |                 |



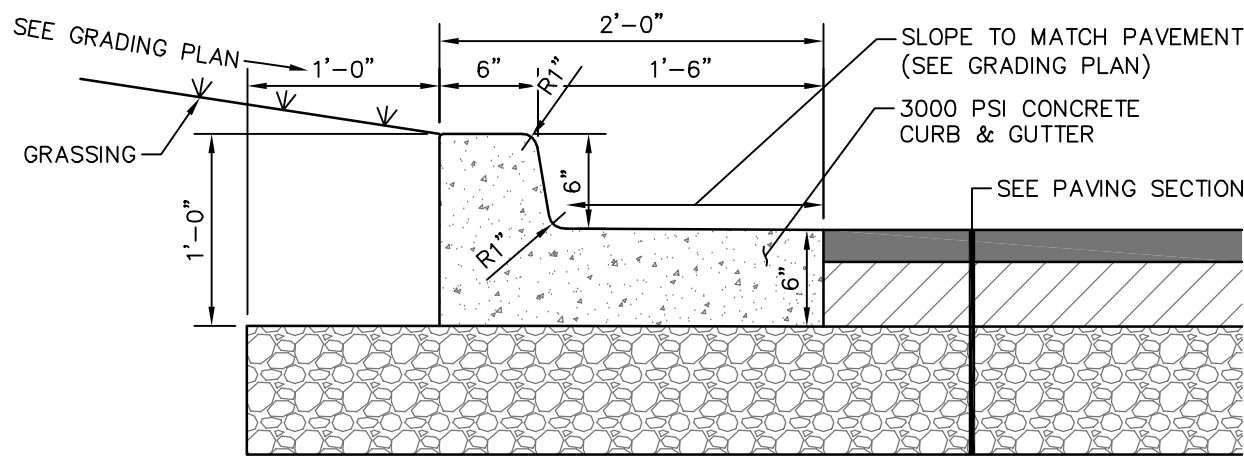


CONTROL JOINT



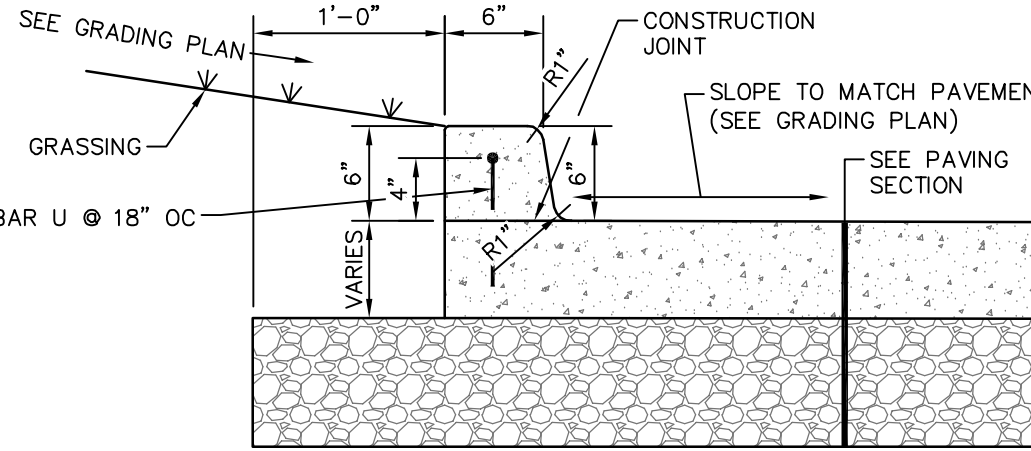
EXPANSION JOINT

TYPICAL PAVEMENT JOINT DETAILS  
NOT TO SCALE



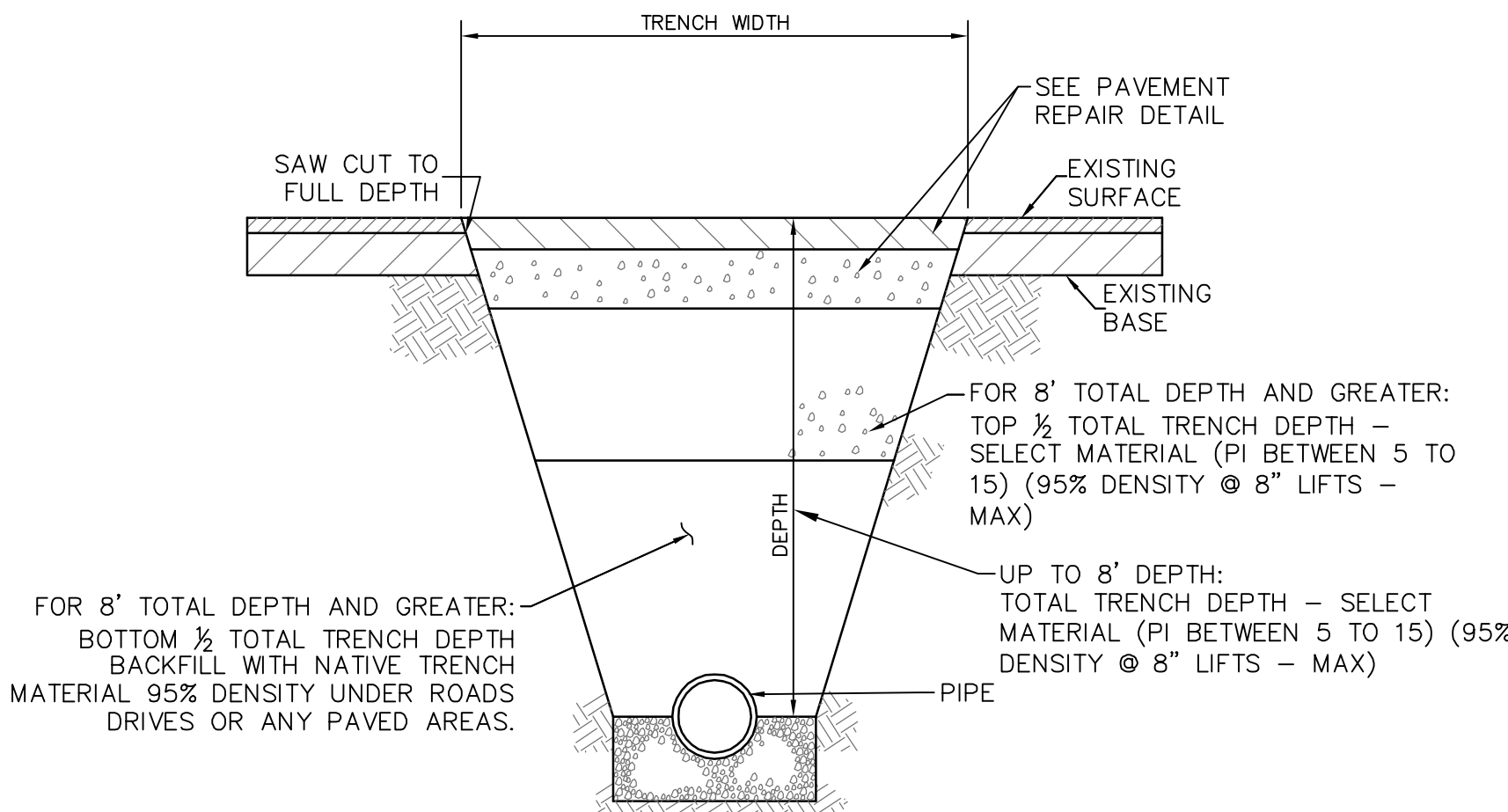
TYPICAL CONCRETE CURB & GUTTER SECTION DETAIL

SCALE: 1" = 1'

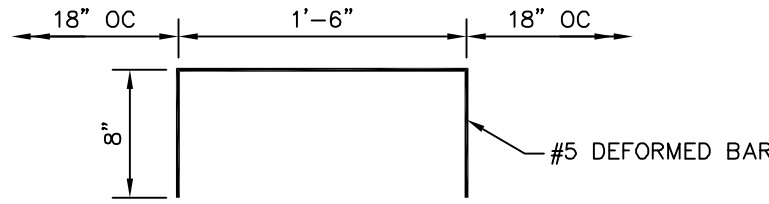


TYPICAL CONCRETE INTEGRAL CURB SECTION DETAIL

SCALE: 1" = 1'

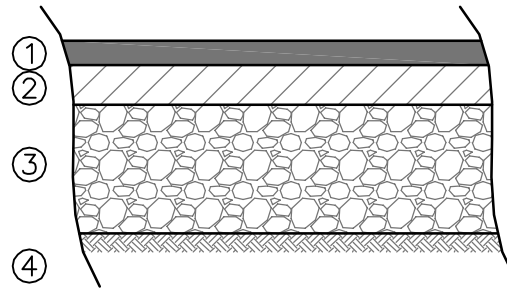


TYPICAL TRENCH IN ROADWAY DETAIL



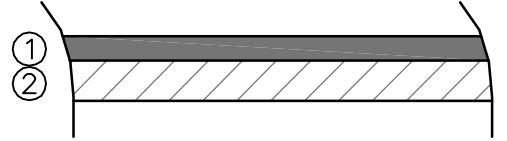
BAR U

SCALE: NONE



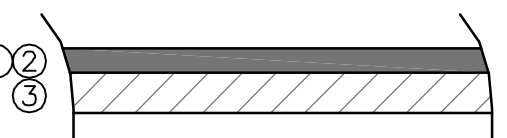
- 1 1/2" 9.5mm HOT BITUMINOUS ASPHALT (1 @ 1 1/2" LIFTS)
- 4 1/2" 19mm HOT BITUMINOUS ASPHALT (2 @ 2 1/4" LIFTS)
- 8" DEPTH GRANULAR MATERIAL (CL 9, GP B) COMPACTED TO 98%
- EXISTING SUBGRADE COMPACTED TO 95%

ASPHALT ROADWAY



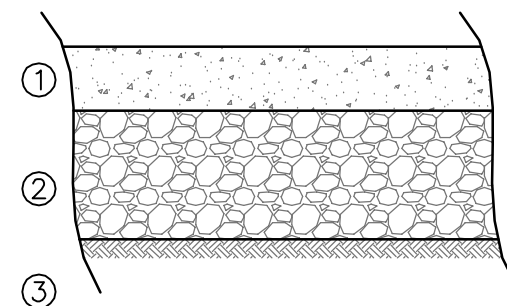
- 1 1/2" 9.5mm HOT BITUMINOUS ASPHALT (1 @ 1 1/2" LIFTS)
- EXISTING SURFACE SHALL BE CLEANED AND TREATED WITH SINGLE BITUMINOUS SURFACE TREATMENT (AGGREGATE SIZE 89)

ASPHALT OVERLAY



- 2" 9.5mm HOT BITUMINOUS ASPHALT (2 @ 1" LIFTS)
- VARIABLE DEPTH LEVELING HOT BITUMINOUS ASPHALT
- 1 1/2" & VARIABLE DEPTH MILLING

ASPHALT MILL & OVERLAY



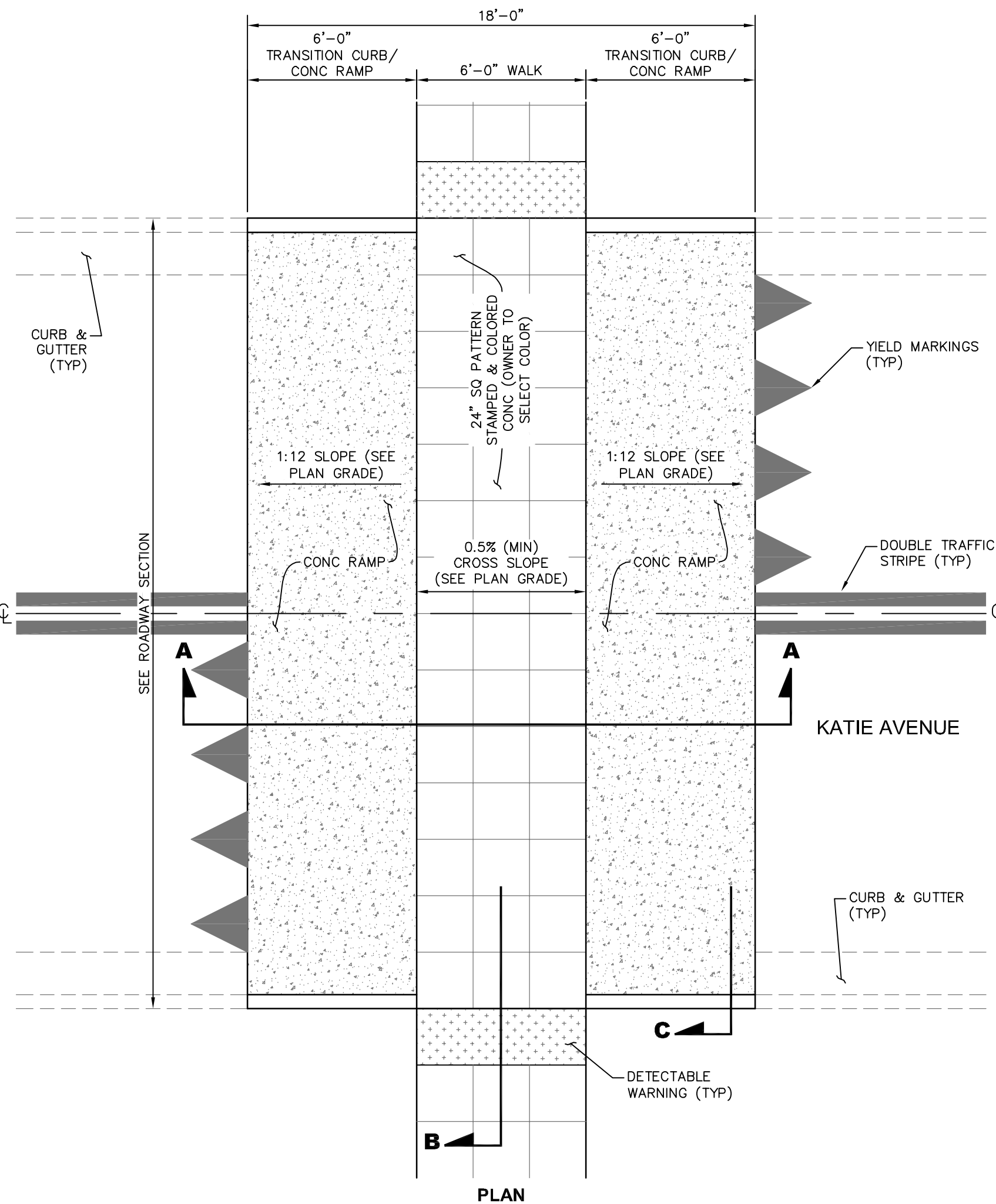
- 7" DEPTH NON-REINFORCED 3500 PSI CONCRETE
- 8" DEPTH GRANULAR MATERIAL (CL 9, GP B) COMPACTED TO 98%
- EXISTING SUBGRADE COMPACTED TO 95%

CONCRETE DRIVE & CROSS WALK

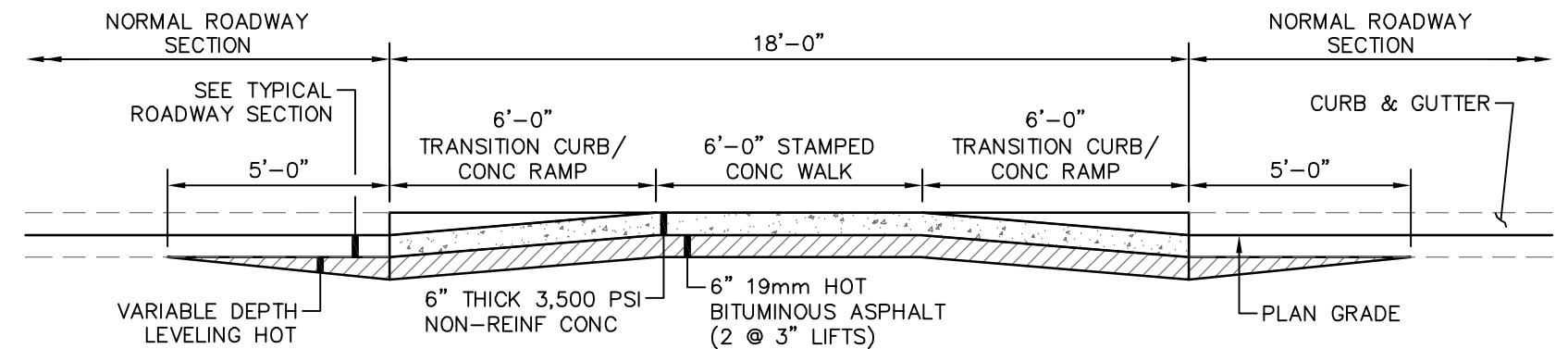
COMPACTION NOTE:  
ALL COMPACTION NOTED IN THE PAVING SECTIONS  
HEREON SHALL BE TO STANDARD PROCTOR

TYPICAL PAVEMENT SECTIONS

NOT TO SCALE



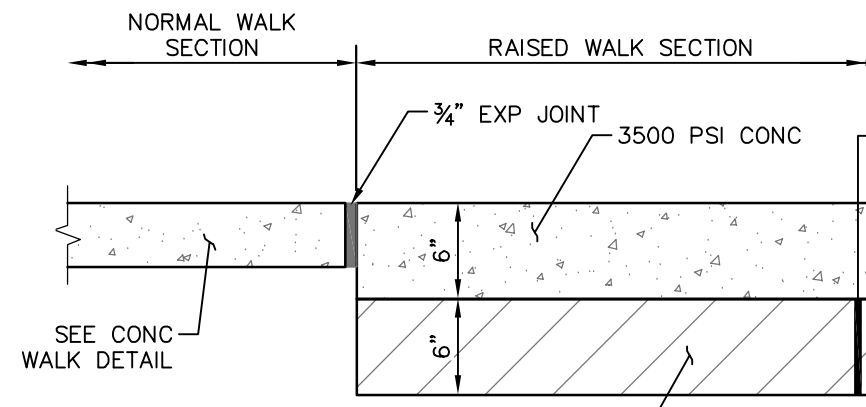
PLAN



SECTION 'A-A'

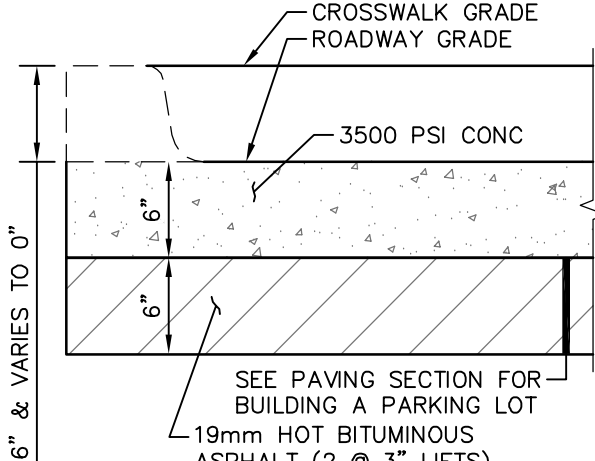
RAISED CROSSWALK DETAIL FOR KATIE AVE

SCALE: 1" = 4'



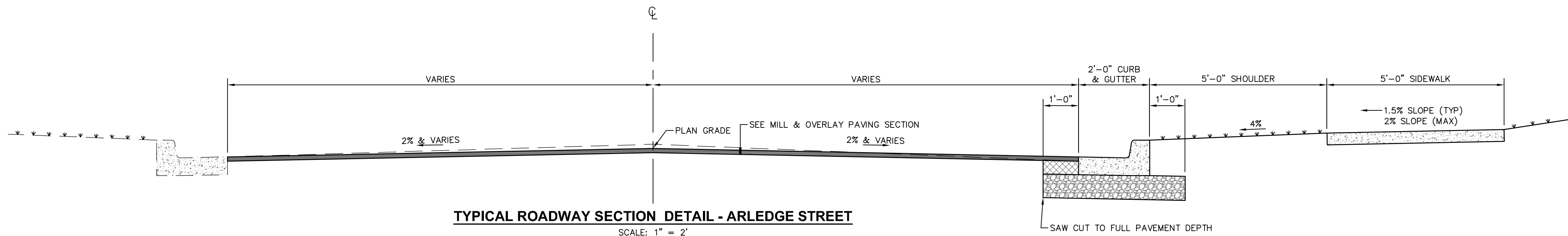
SECTION B-B

SCALE: NONE



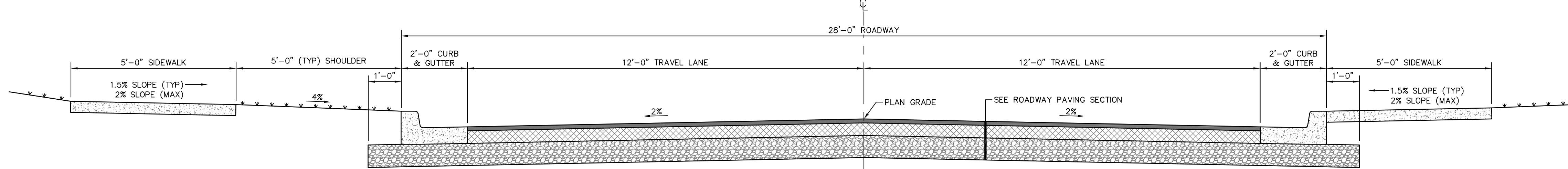
SECTION C-C

SCALE: NONE



TYPICAL ROADWAY SECTION DETAIL - ARLEDGE STREET

SCALE: 1" = 2'

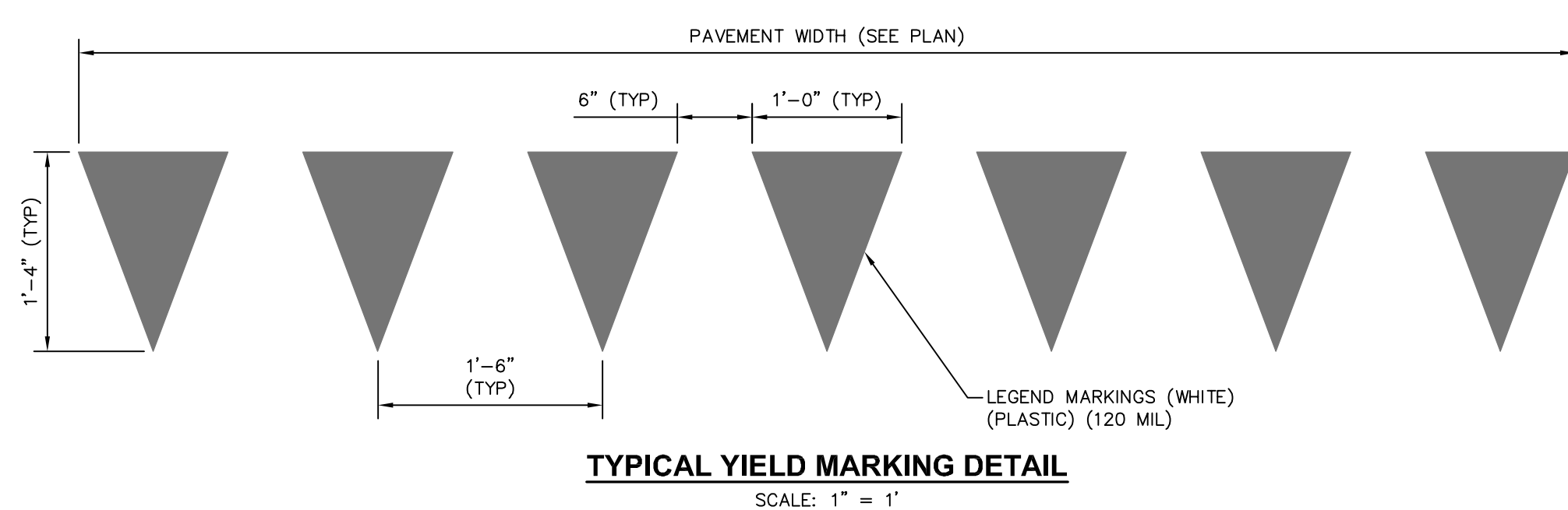
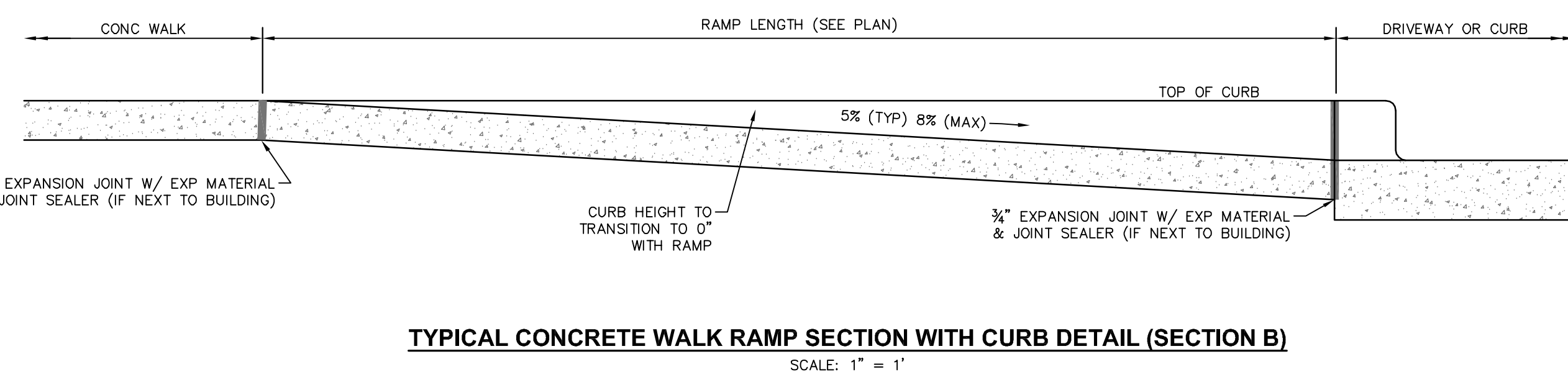
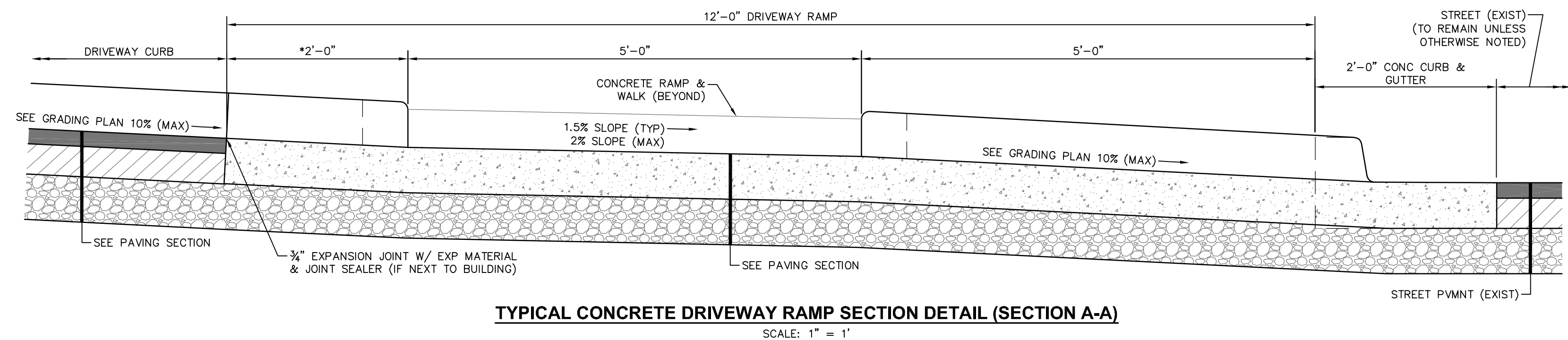
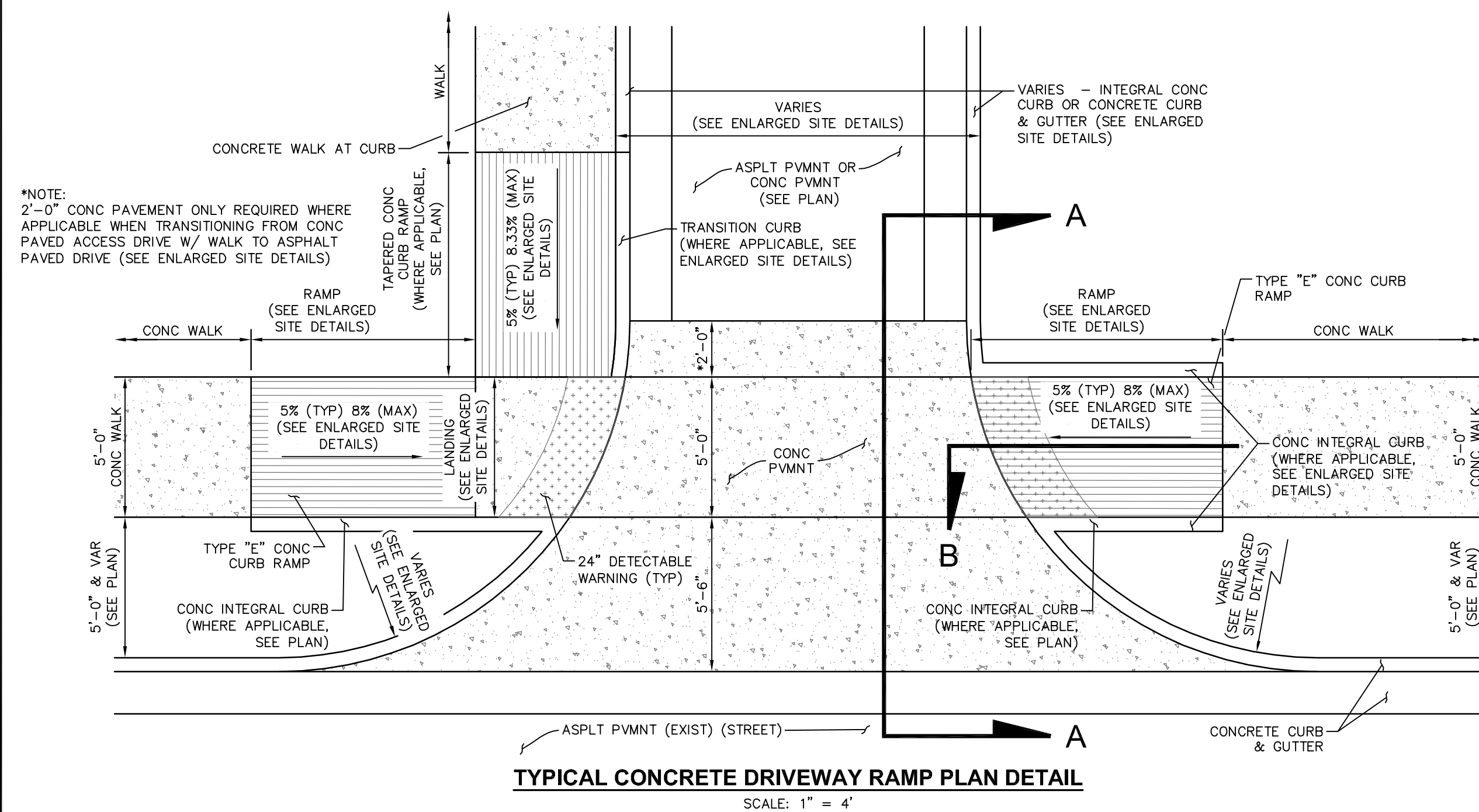
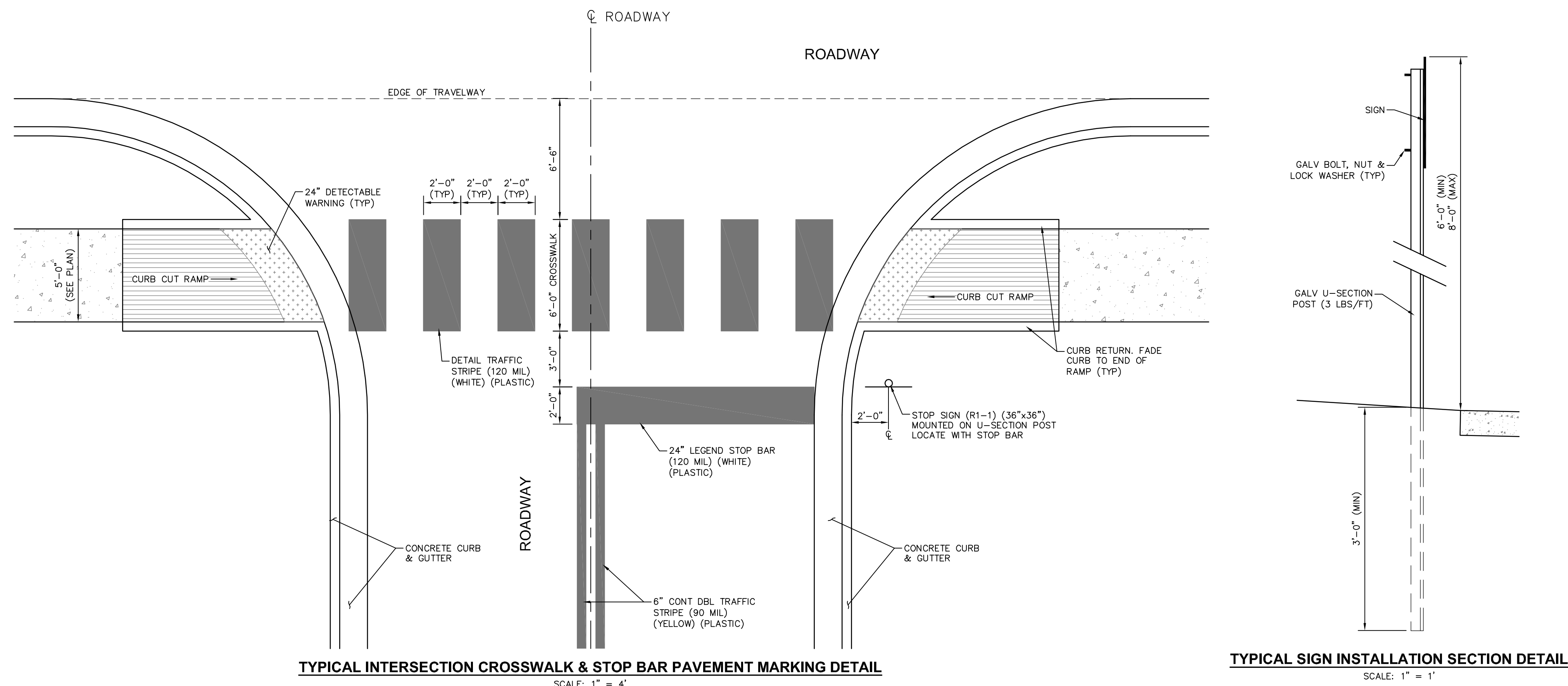
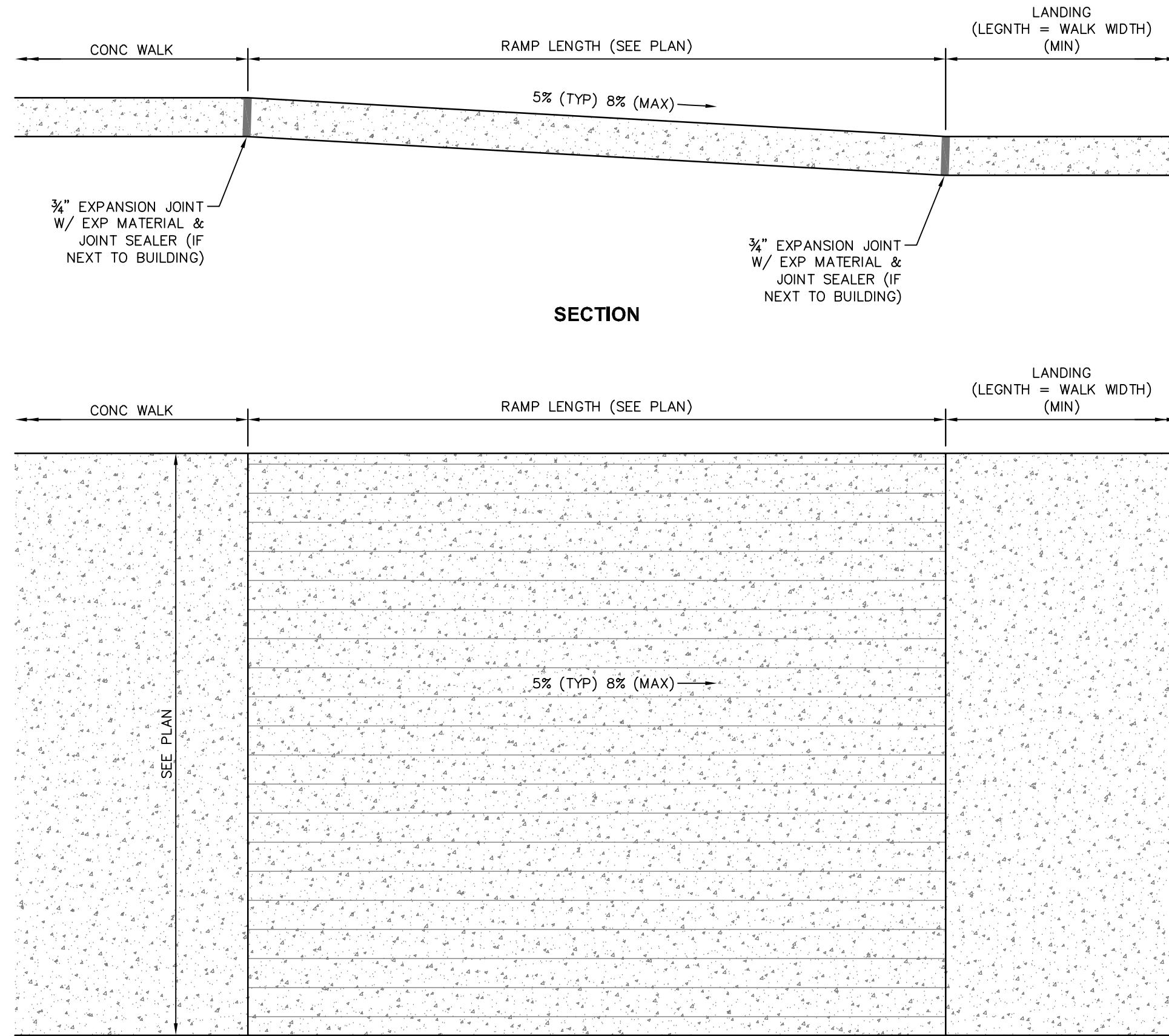


TYPICAL ROADWAY SECTION DETAIL - KATIE AVENUE

SCALE: 1" = 2'

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| NO.                                                                                                        | DATE | DESCRIPTION      | BY              |
| GENERAL SITE DETAILS                                                                                       |      |                  |                 |
| INFRASTRUCTURE REHABILITATION                                                                              |      |                  |                 |
| CITY OF HATTIESBURG                                                                                        |      |                  |                 |
| FORREST COUNTY, MISSISSIPPI                                                                                |      |                  |                 |
|  Engineering Progress |      |                  |                 |
| 301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com                  |      |                  |                 |
| Drawn by: RES\BT                                                                                           |      | Checked by: SEM  | Scale: AS NOTED |
| Date: 05-04-2018                                                                                           |      | Working No. GSD1 |                 |
| Drawing No.: 11258                                                                                         |      | Sheet No. 11     |                 |

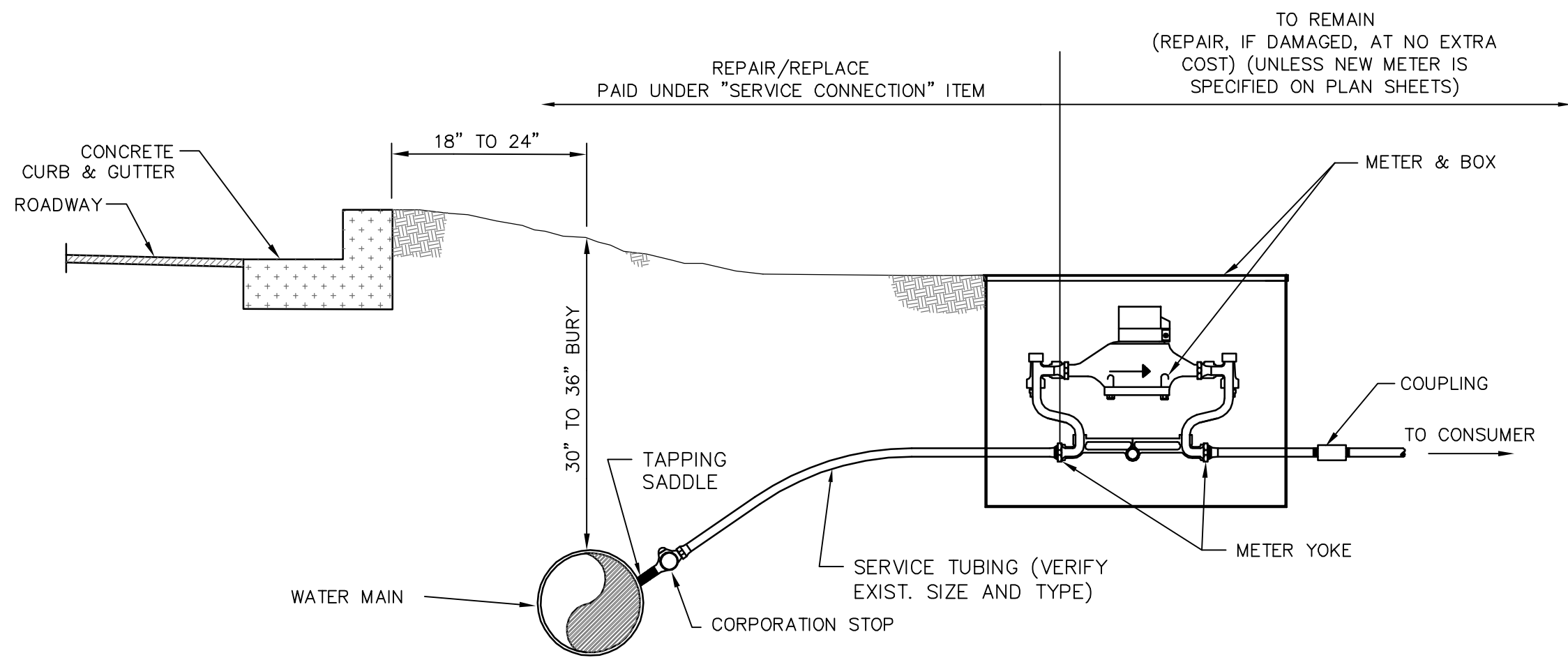




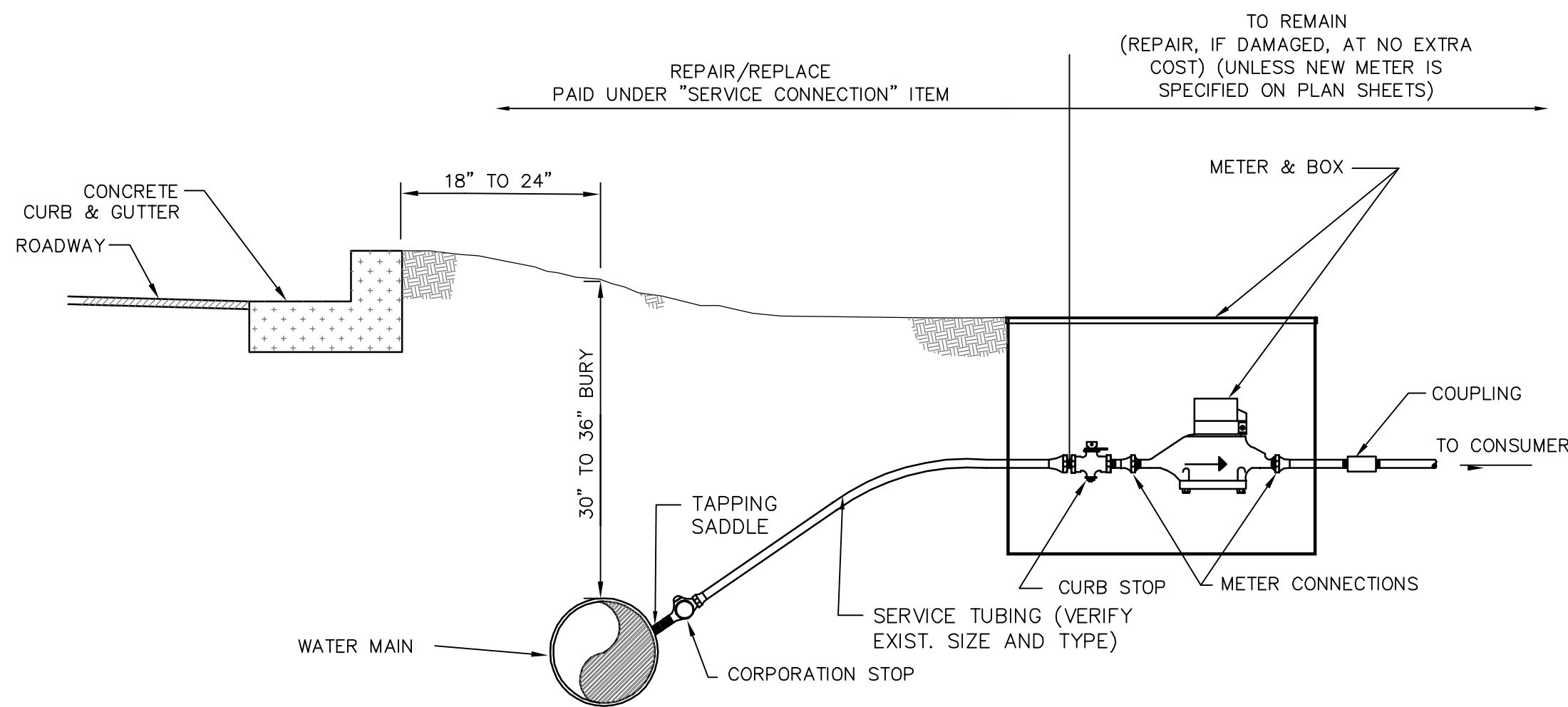
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| NO.                                                                                      | DATE | DESCRIPTION             | BY              |
| GENERAL SITE DETAILS                                                                     |      |                         |                 |
| INFRASTRUCTURE REHABILITATION                                                            |      |                         |                 |
| CITY OF HATTIESBURG                                                                      |      |                         |                 |
| FORREST COUNTY, MISSISSIPPI                                                              |      |                         |                 |
|     |      |                         |                 |
| 301 Second Ave.   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |      |                         |                 |
| Drawn by: RES\BT                                                                         |      | Checked by: SEM         | Scale: AS NOTED |
| Date: 05-04-2018                                                                         |      | Working No. <u>GSD2</u> |                 |
| Drawing No.: 11258                                                                       |      | Sheet No. <u>12</u>     |                 |



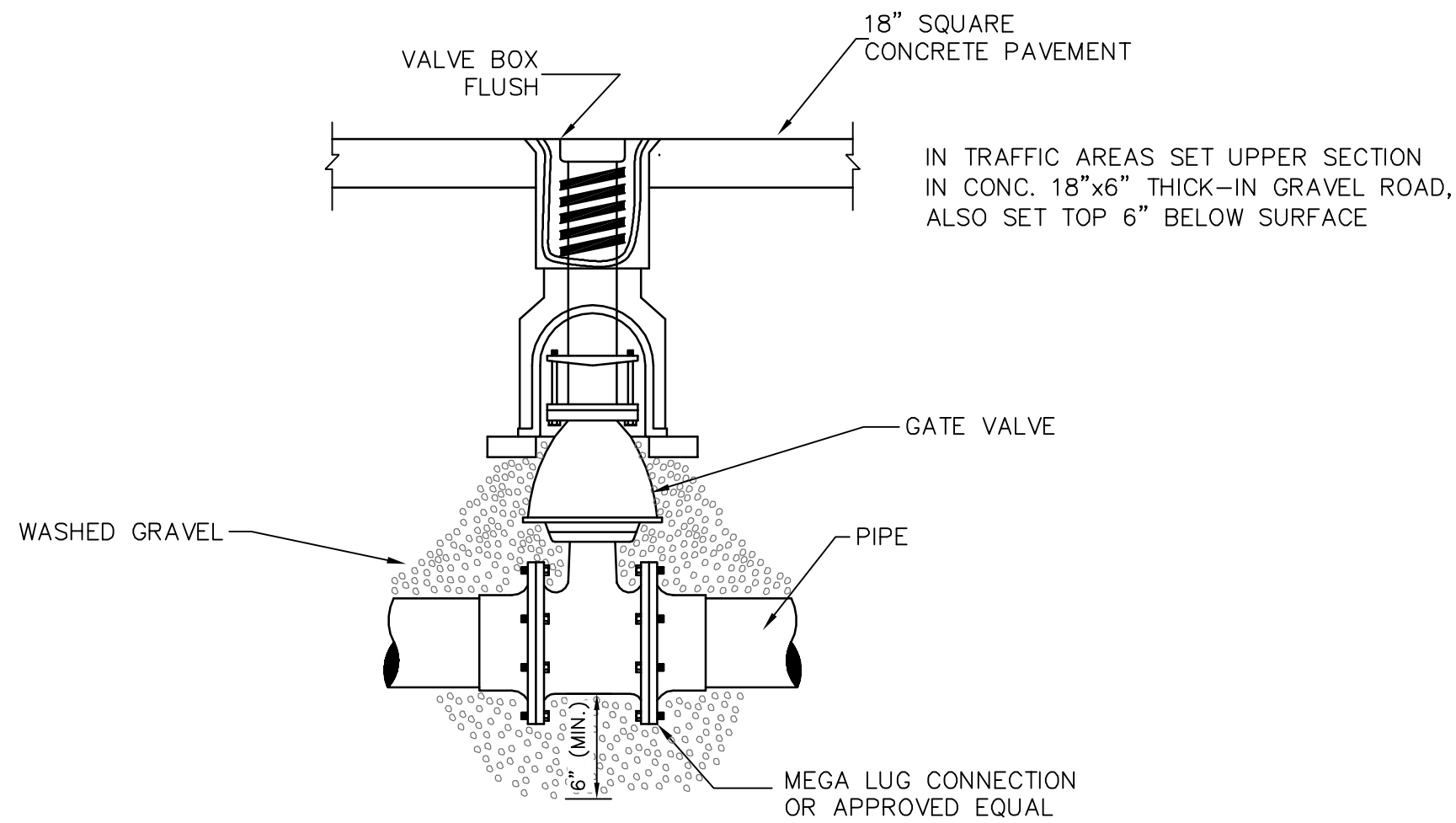
G:\PROJECTS\Albert and Associates\15819 - Hattiesburg Public Safety Complex\15819 CAD Files\1258 City CAD\1258\_Wtr Detailing\_WTRD1.dwg, 5/10/2018 1:32:08 PM



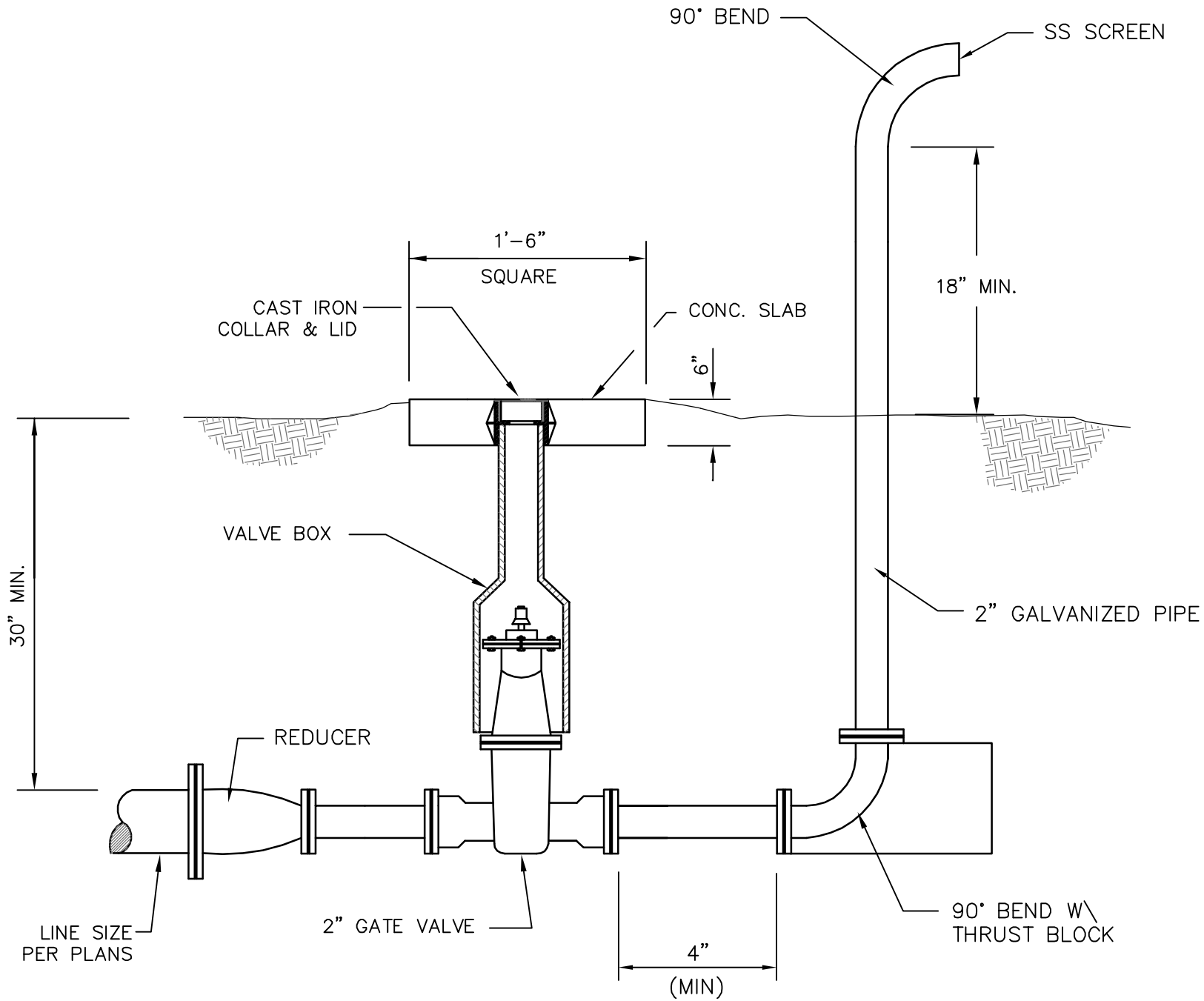
**TYPICAL METER SETTING WITH YOKE  
(PREFERRED)**



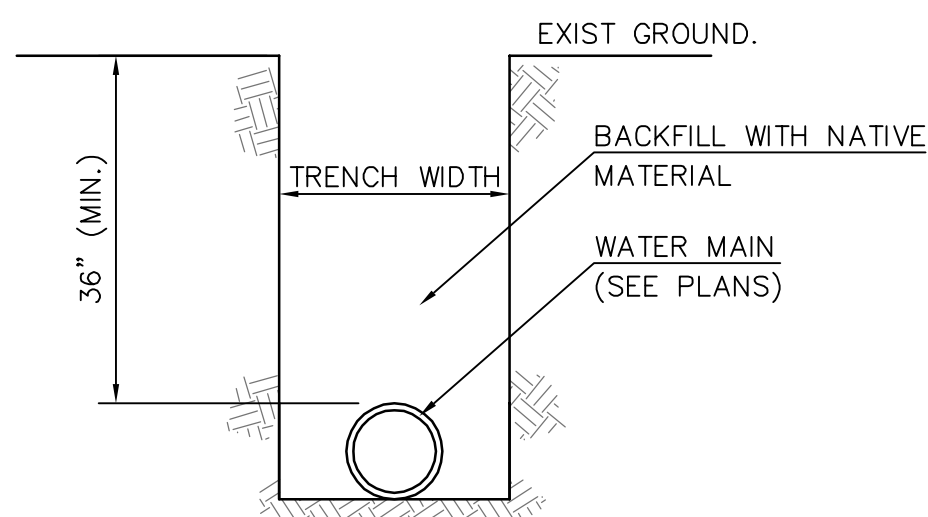
**TYPICAL METER SETTING WITHOUT YOKE**



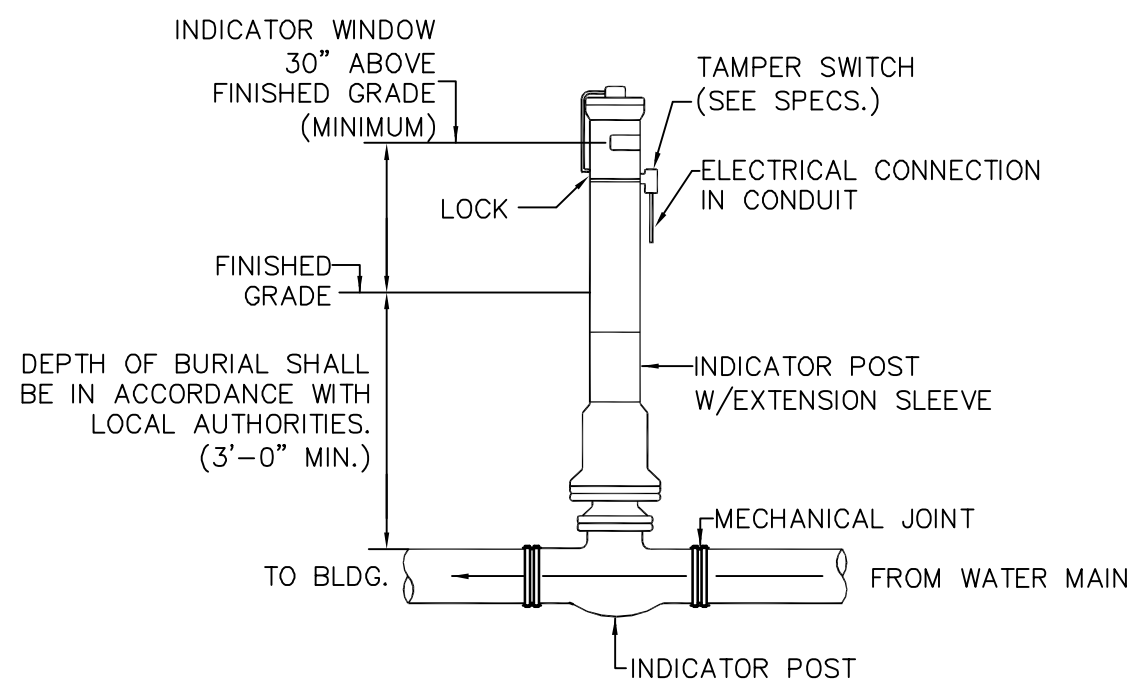
**DETAIL OF VALVE & BOX**



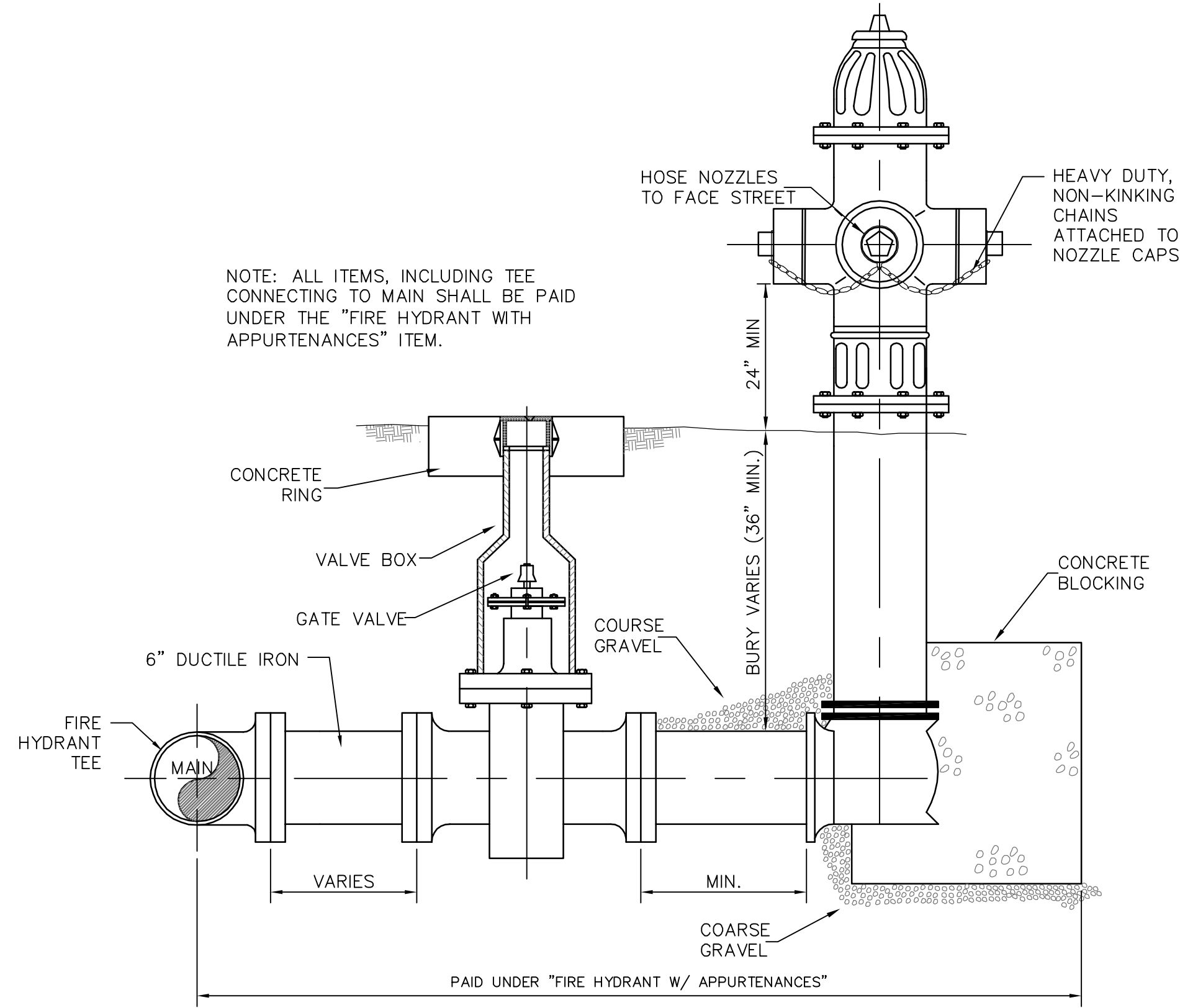
**BLOW-OFF VALVE DETAIL**



**DETAIL OF TRENCH**

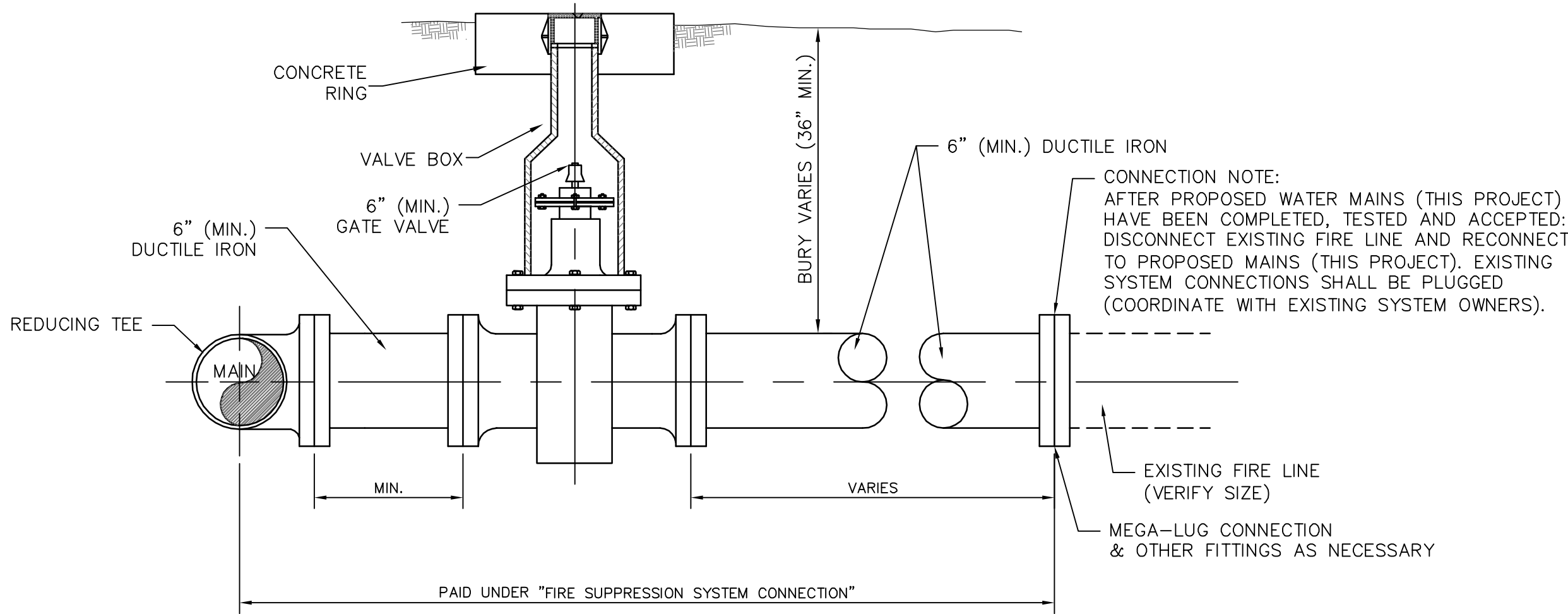


**POST INDICATOR VALVE DETAIL**



**STANDARD 3-WAY FIRE HYDRANT**

NOTE: ALL ITEMS, INCLUDING TEE CONNECTING TO MAIN, VALVE, PIPE, CONNECTION TO EXITING FIRE LINE AND DISCONNECTION OF EXISTING FIRE LINE FROM EXISTING SYSTEM MAIN SHALL BE PAID UNDER THE "FIRE SUPPRESSION SYSTEM CONNECTION" ITEM.



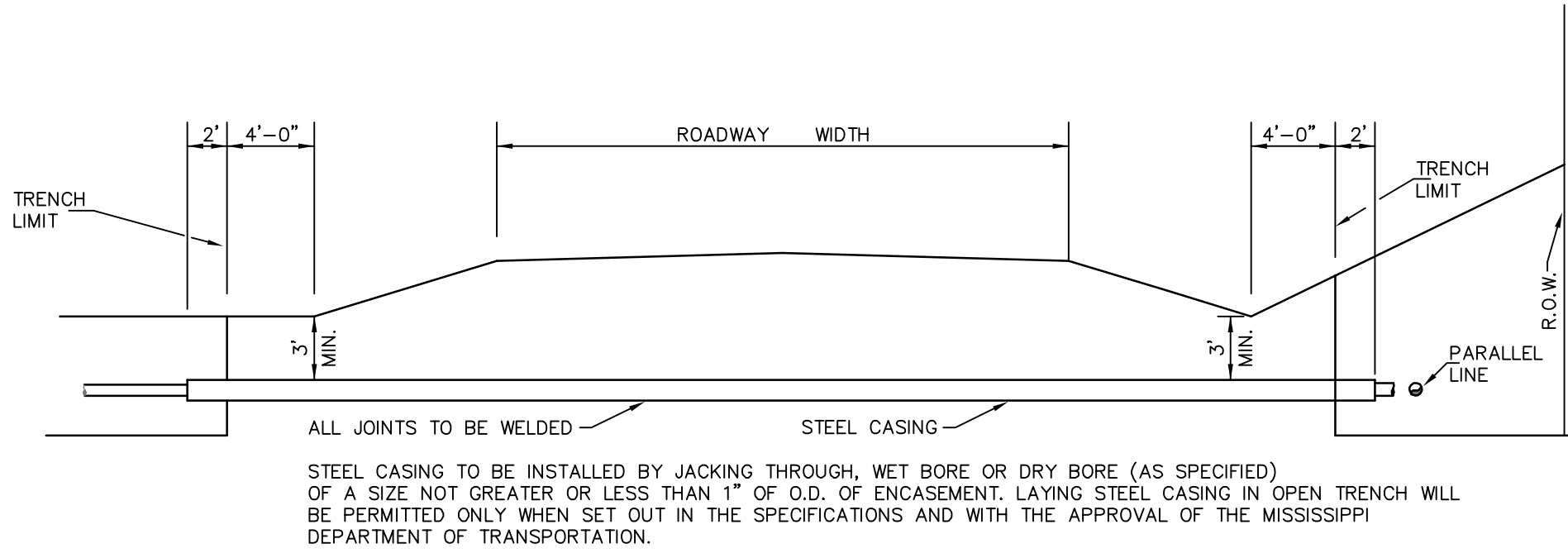
**FIRE SUPPRESSION SYSTEM CONNECTION**

**PIV NOTES:**

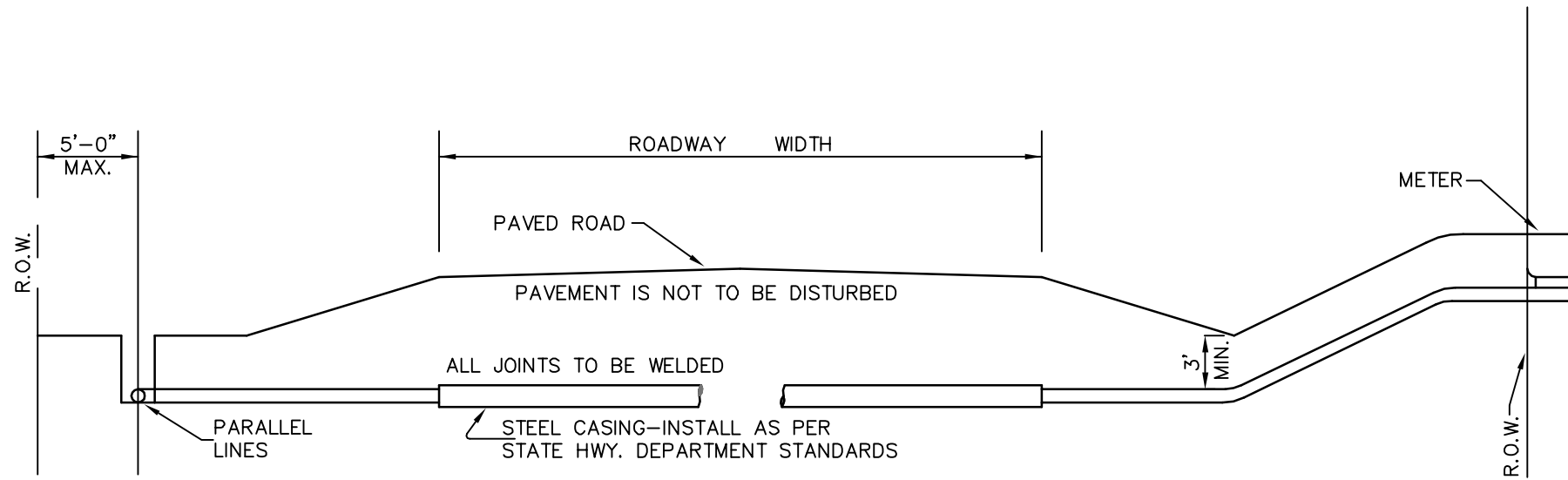
1. POST INDICATOR VALVES SHALL BE REQUIRED AT ALL EXISTING STRUCTURES WHICH ARE BEING CONNECTED TO THE PROPOSED SYSTEM UNDER THIS PROJECT. IF THE EXISTING PIV IS DAMAGED AND/OR INOPERABLE OR IF NO PIV IS IN PLACE AT THE TIME OF CONNECTION.
2. LOCATIONS FOR PROPOSED PIV'S SHALL BE AS DIRECTED BY THE ENGINEER BUT SHALL BE AT LEAST 40 FEET FROM THE EXISTING STRUCTURE AND CLEARLY VISIBLE.
3. POST INDICATOR VALVES SHALL BE INSTALLED AS PER THE MANUFACTURER'S SPECIFICATIONS AND AS DETAILED HERE.
4. ALL ITEMS, INCLUDING POSSIBLE INSTALLATION ON EXISTING FIRE LINE SHALL BE PAID UNDER THE "POST INDICATOR VALVE" ITEM.

|                                                                                           |            |              |       |
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| NO.                                                                                       | DATE       | DESCRIPTION  | BY    |
| WATER INSTALLATION DETAILS                                                                |            |              |       |
| INFRASTRUCTURE REHABILITATION                                                             |            |              |       |
| CITY OF HATTIESBURG                                                                       |            |              |       |
| FORREST COUNTY, MISSISSIPPI                                                               |            |              |       |
| <b>sdw</b><br>Engineering Progress                                                        |            |              |       |
| 301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |            |              |       |
| Drawn by:                                                                                 | RES\BT     | Checked by:  | SEM   |
| Date:                                                                                     | 05-04-2018 | Working No.: | WTRD1 |
| Drawing No.:                                                                              | 11258      | Sheet No.:   | 13    |

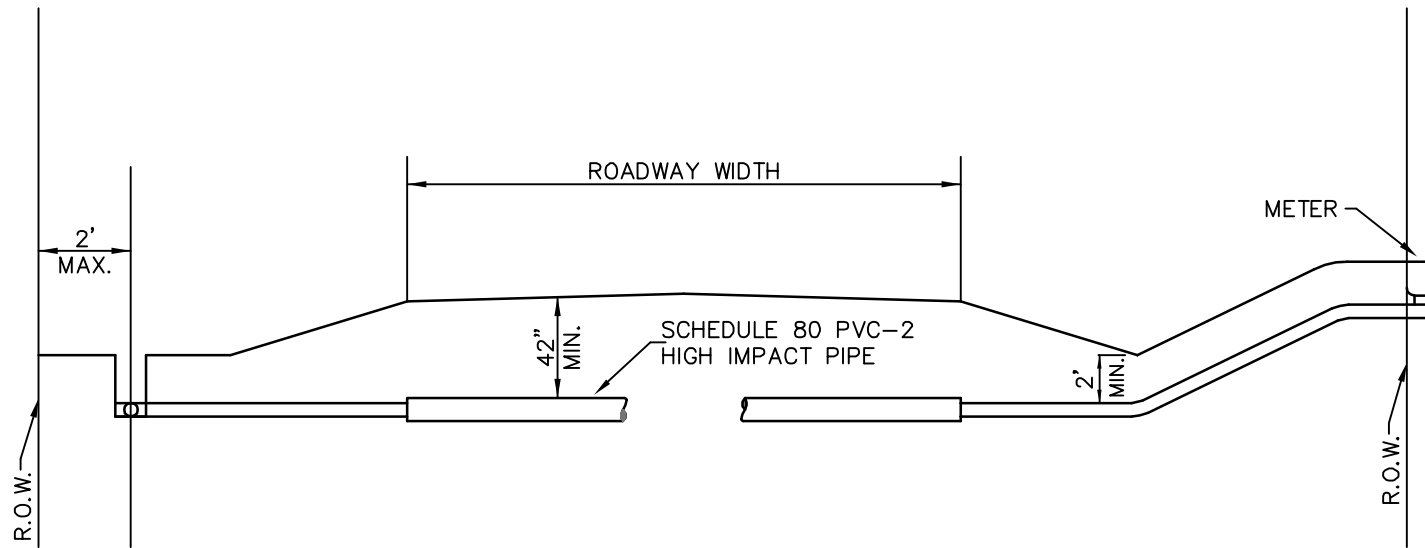




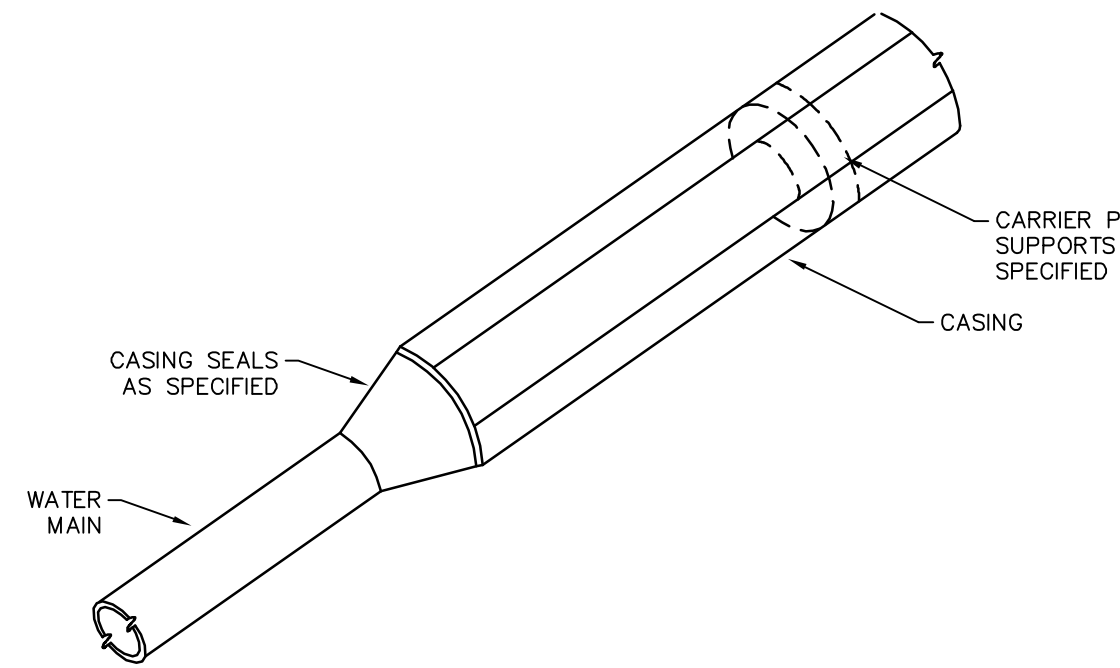
HIGHWAY CROSSING & WATER LINE PARALLELING HWY. IN R.O.W.



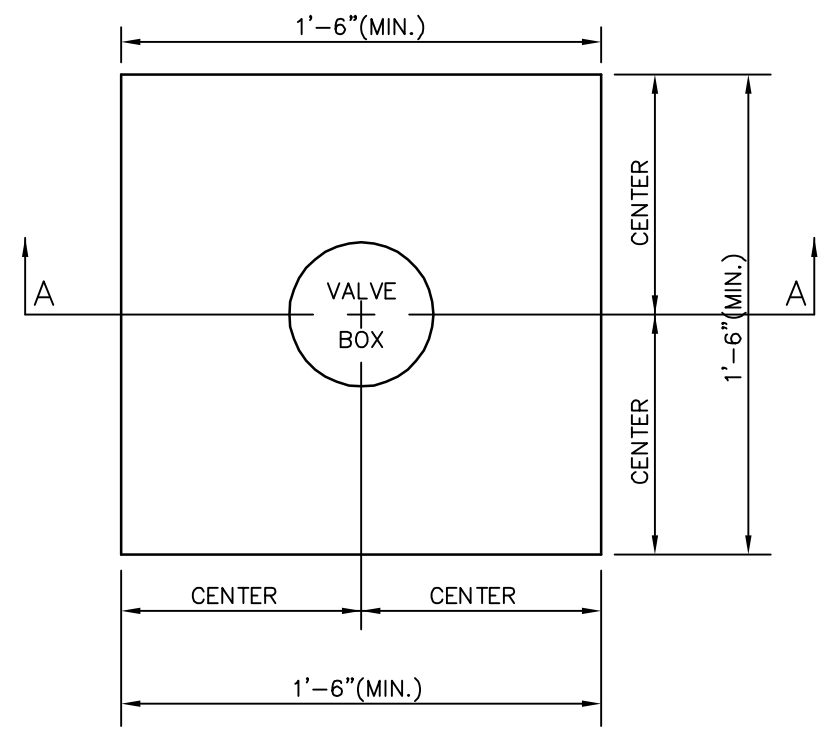
ROAD BORE & WATER LINE PARALLELING ROAD IN R.O.W.



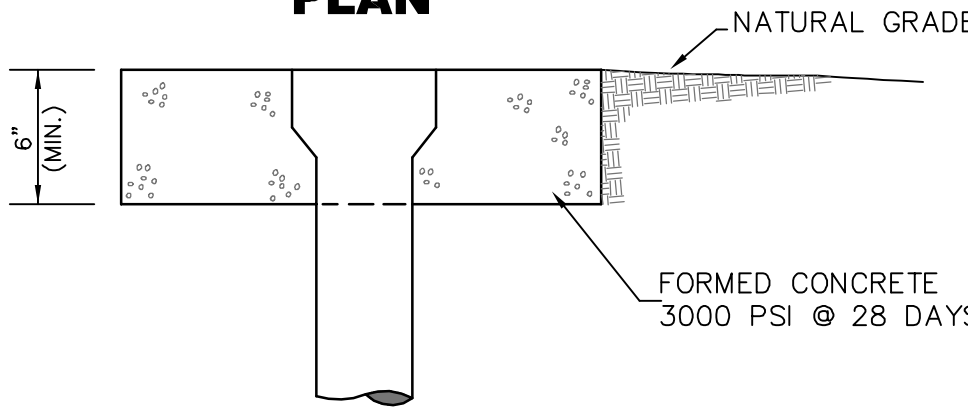
COUNTY GRAVEL ROAD & WATER LINE PARALLELING ROAD IN R.O.W.



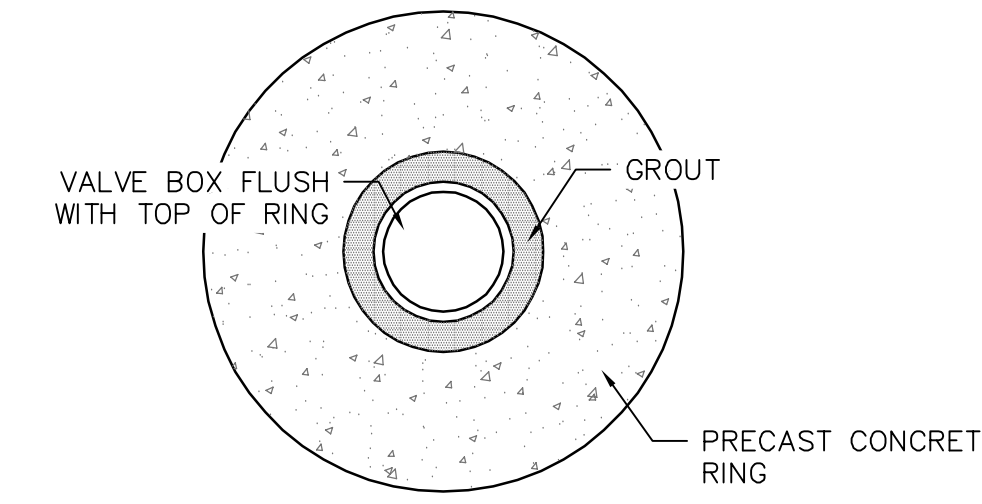
CASING END DETAIL



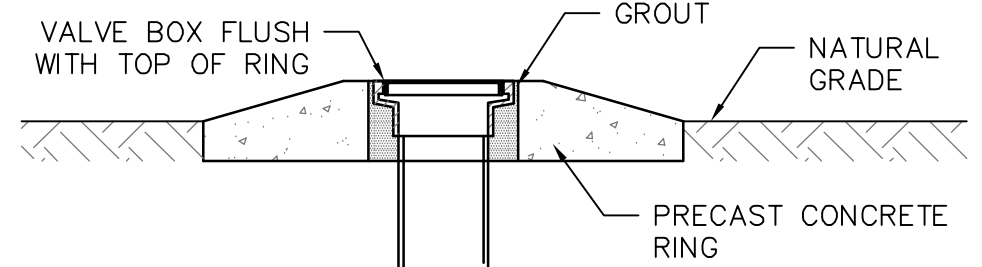
PLAN



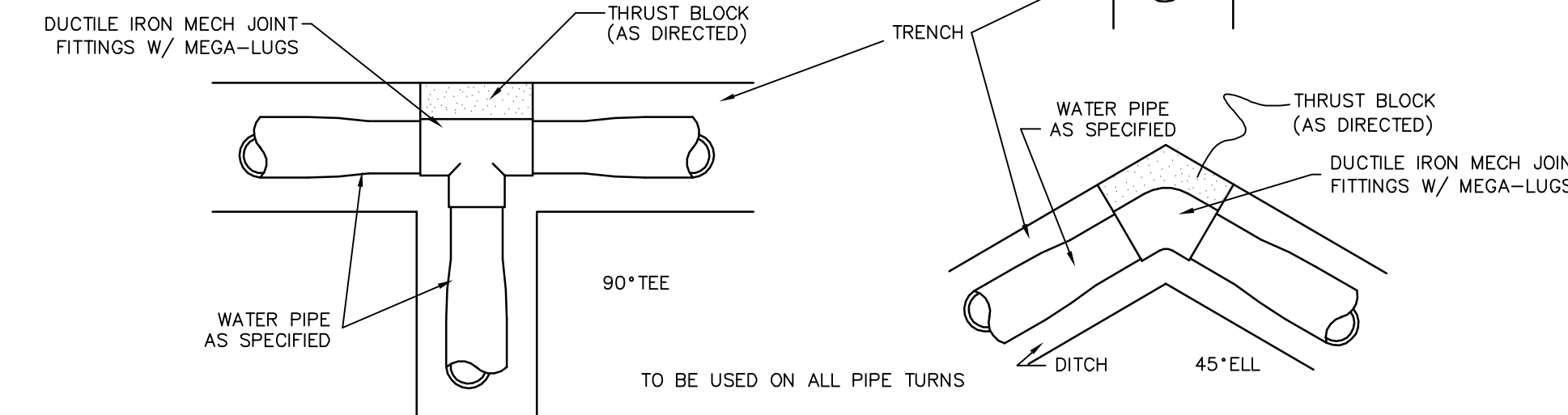
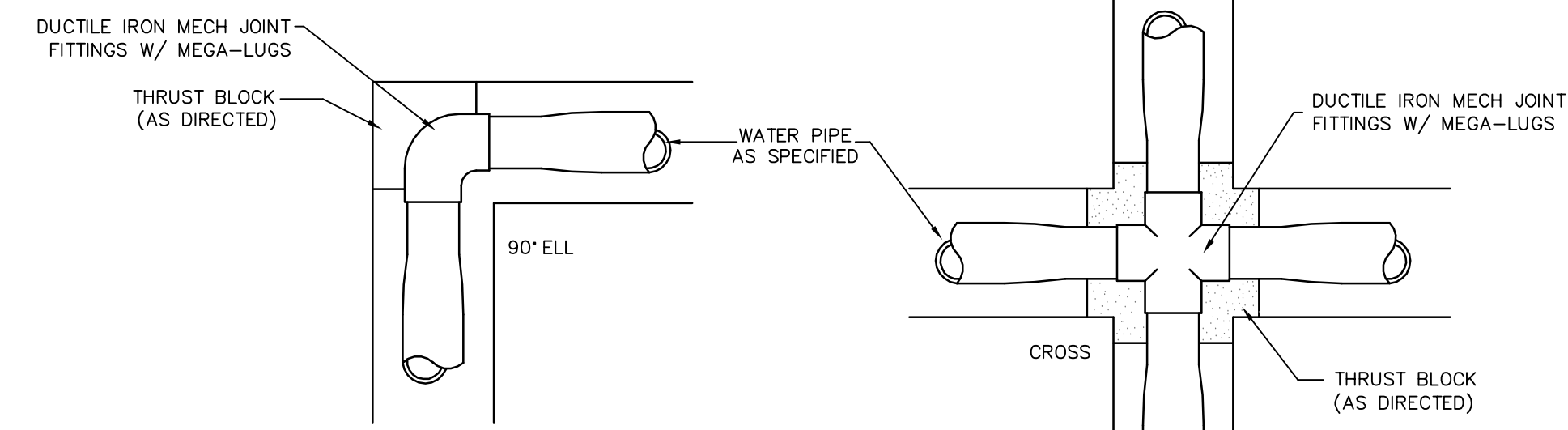
SECTION VALVE LOCATION (PAVED AREA)



PLAN



SECTION VALVE LOCATION (NON PAVED AREA)



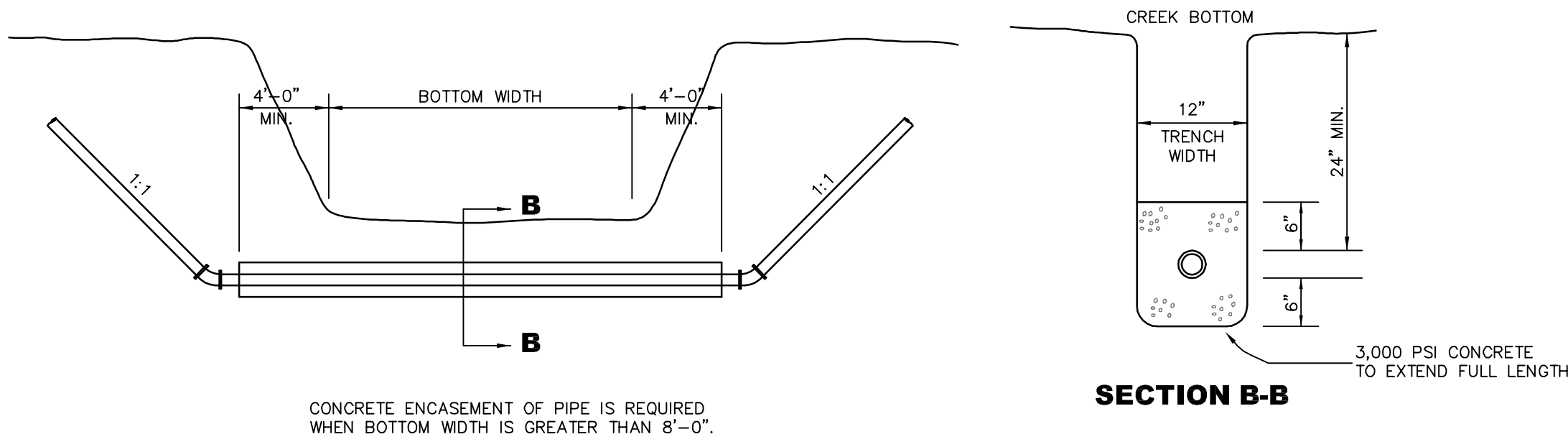
THRUST BLOCK DETAILS

|     |      |             |    |
|-----|------|-------------|----|
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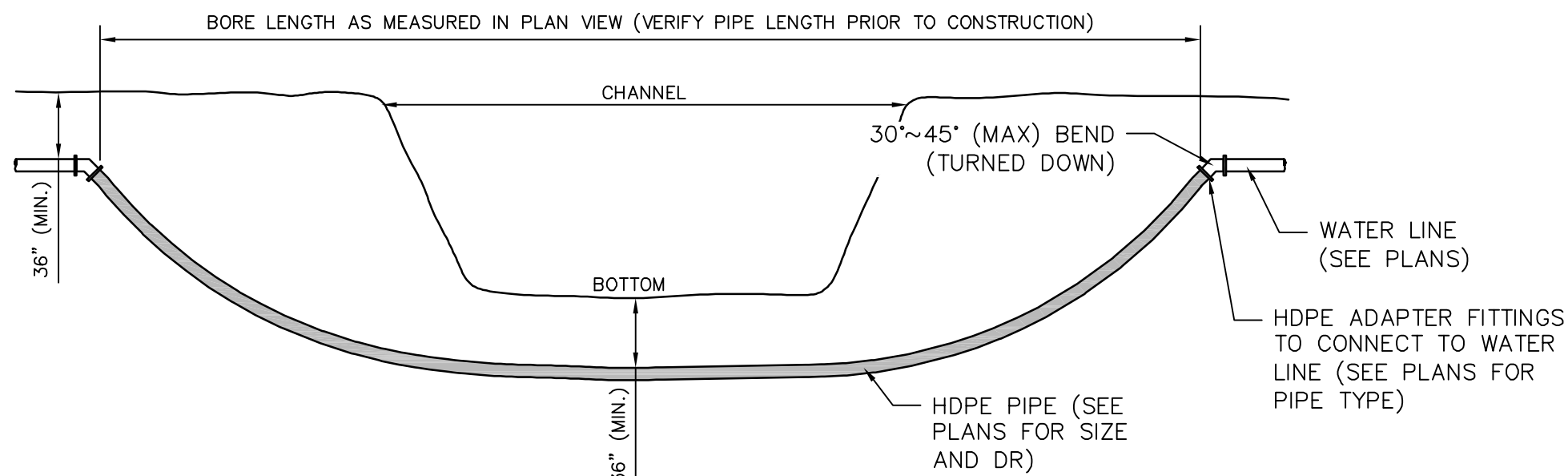
WATER INSTALLATION DETAILS

INFRASTRUCTURE REHABILITATION  
CITY OF HATTIESBURG  
FORREST COUNTY, MISSISSIPPI

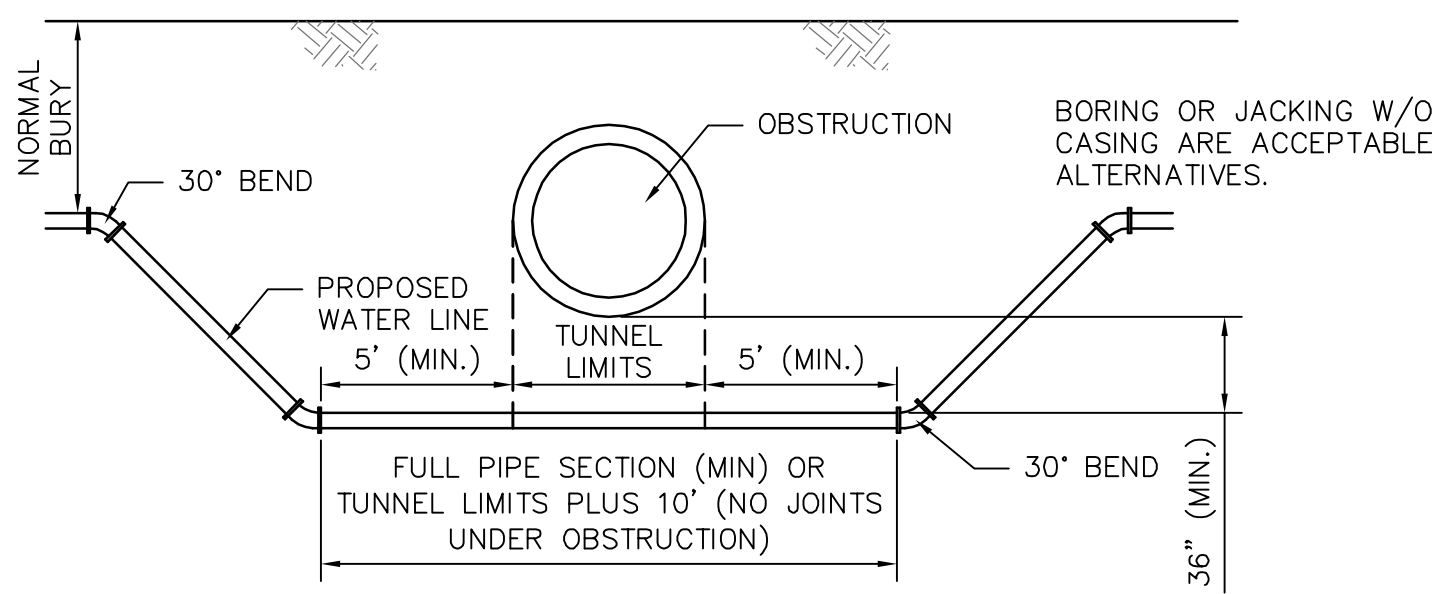
|                                                                                                                                 |                   |             |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|
| <b>sdw</b><br>Engineering Progress<br>301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |                   |             |
| Drawn by: RES\BT                                                                                                                | Checked by: SEM   | Scale: NONE |
| Date: 05-04-2018                                                                                                                | Working No. WTRD2 |             |
| Drawing No.: 11258                                                                                                              | Sheet No. 14      |             |



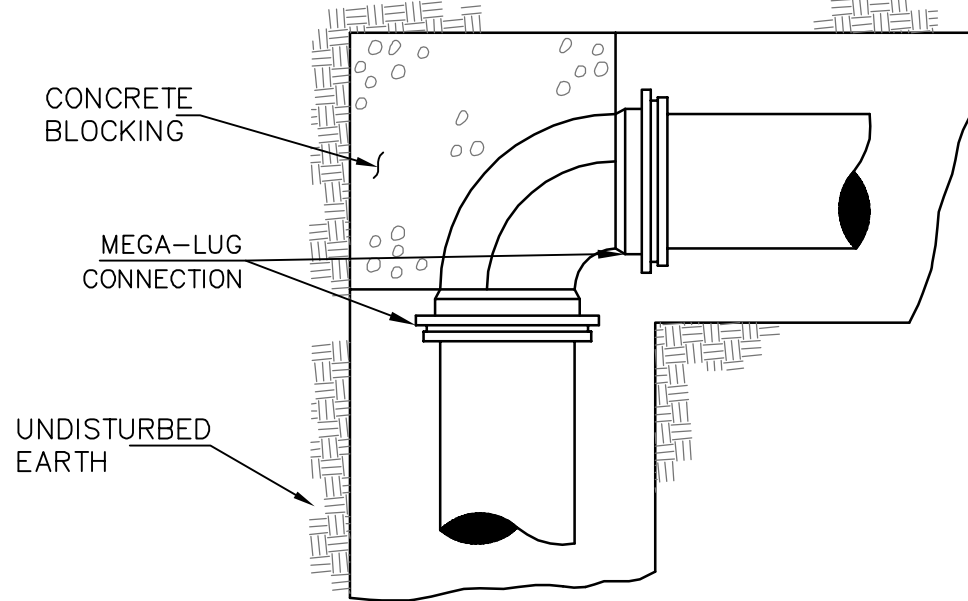
OPEN CUT CHANNEL CROSSING DETAIL



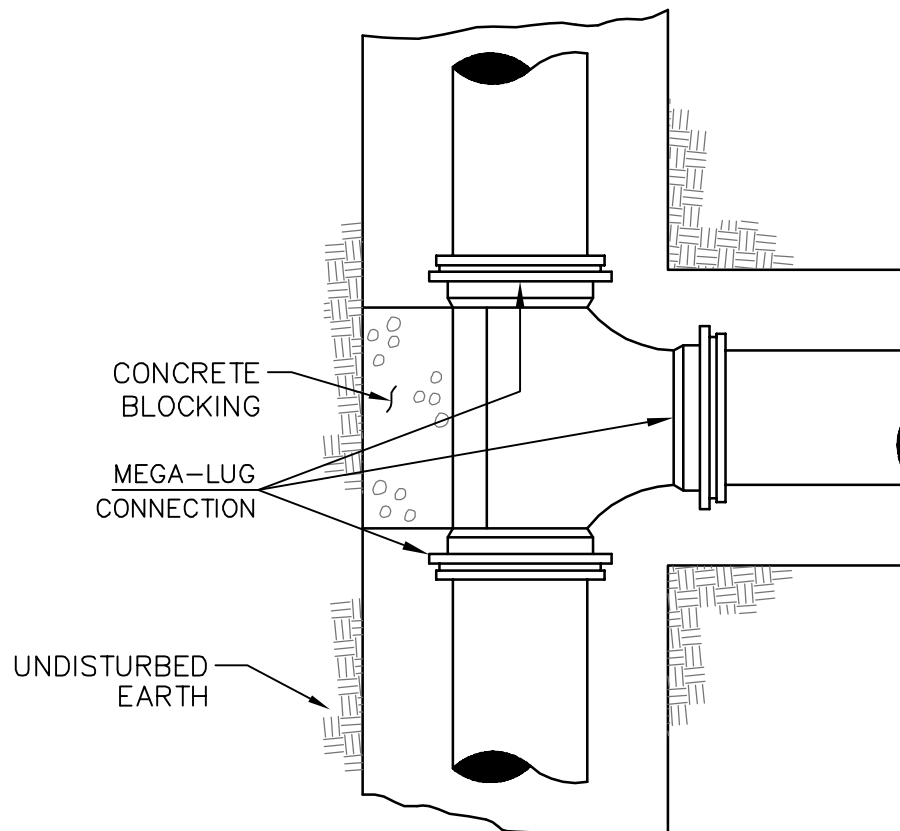
DIRECTIONAL BORED CHANNEL CROSSING DETAIL



OBSTRUCTION CROSSING DETAIL

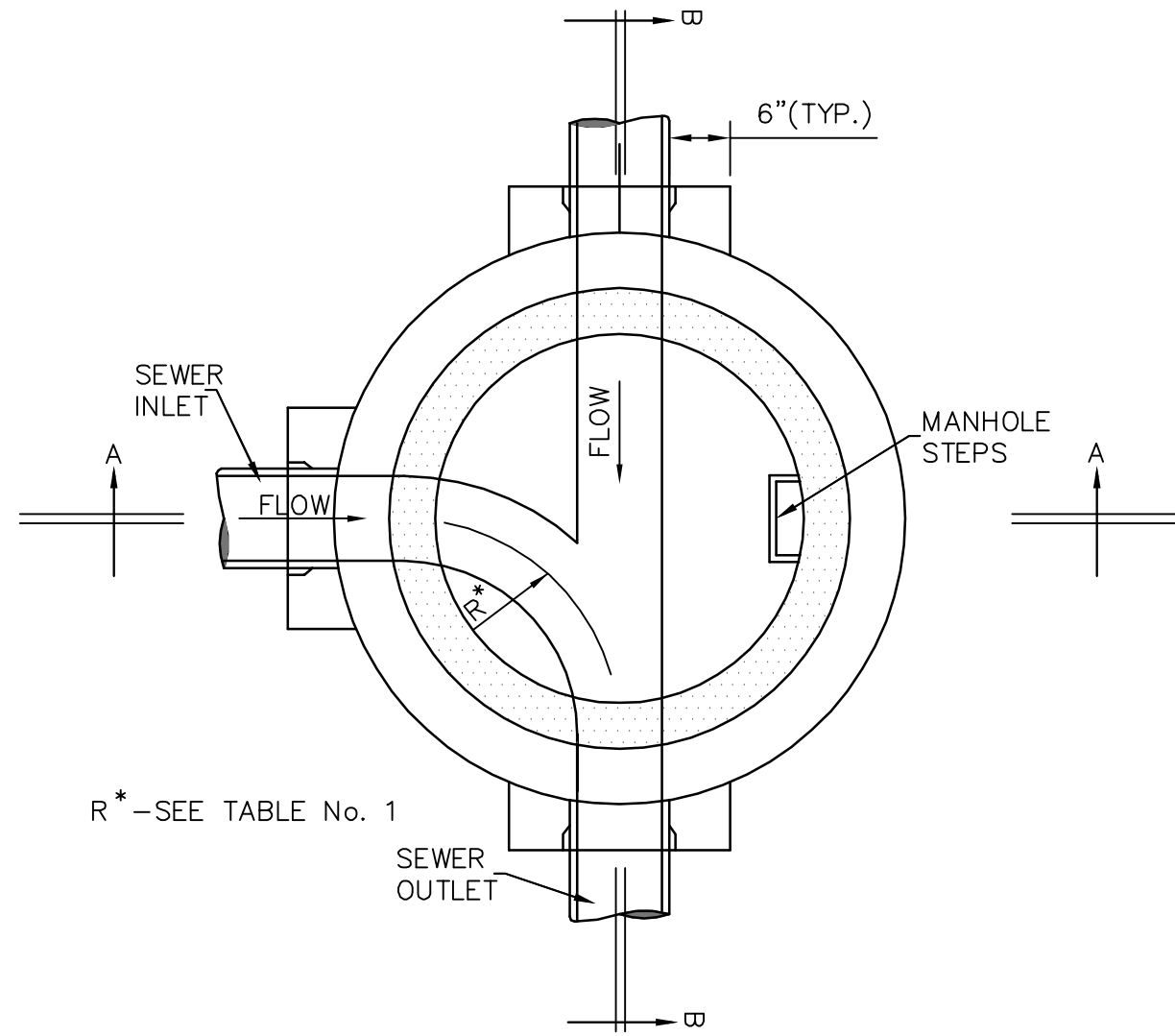


PLAN



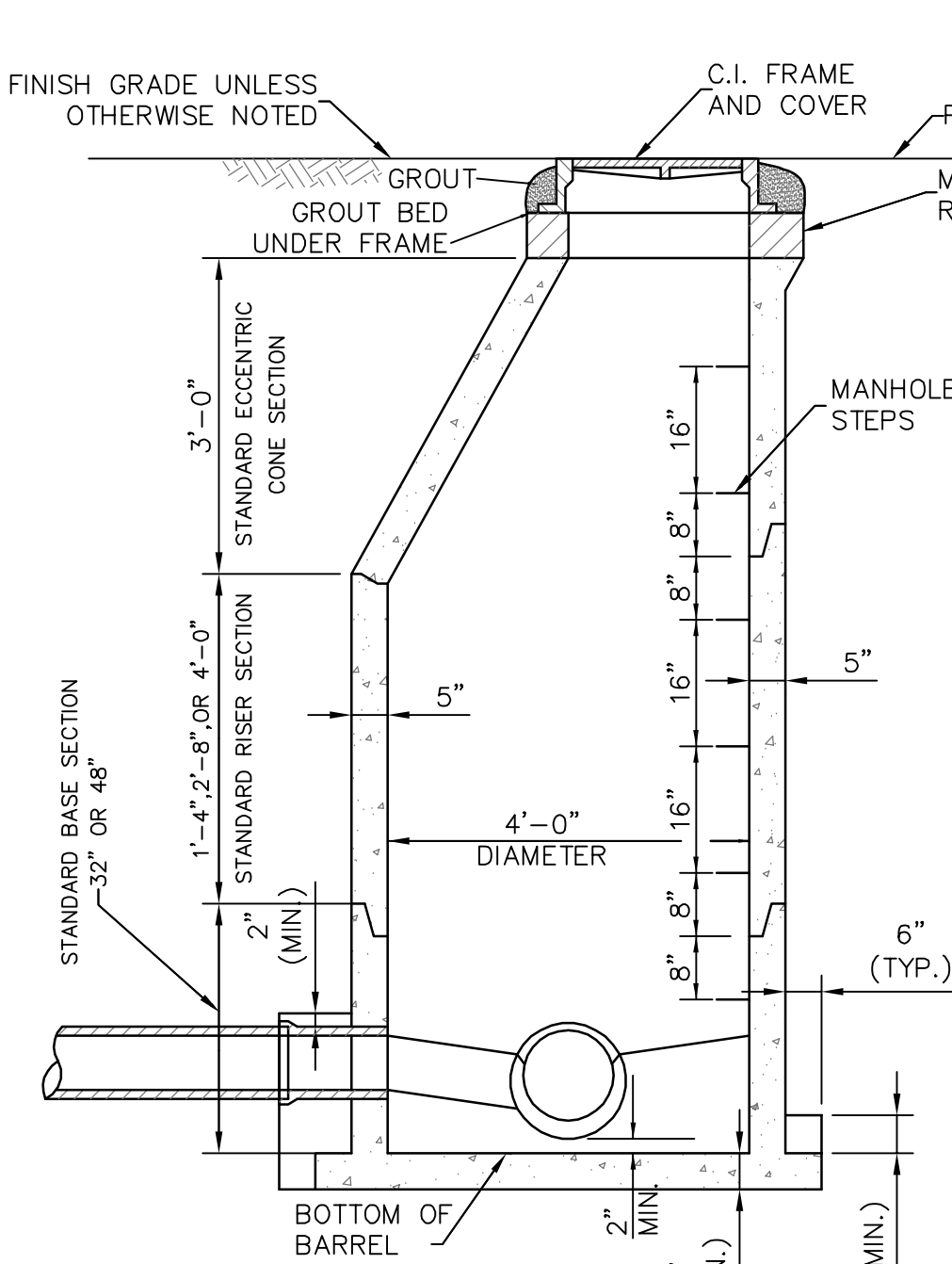
PLAN



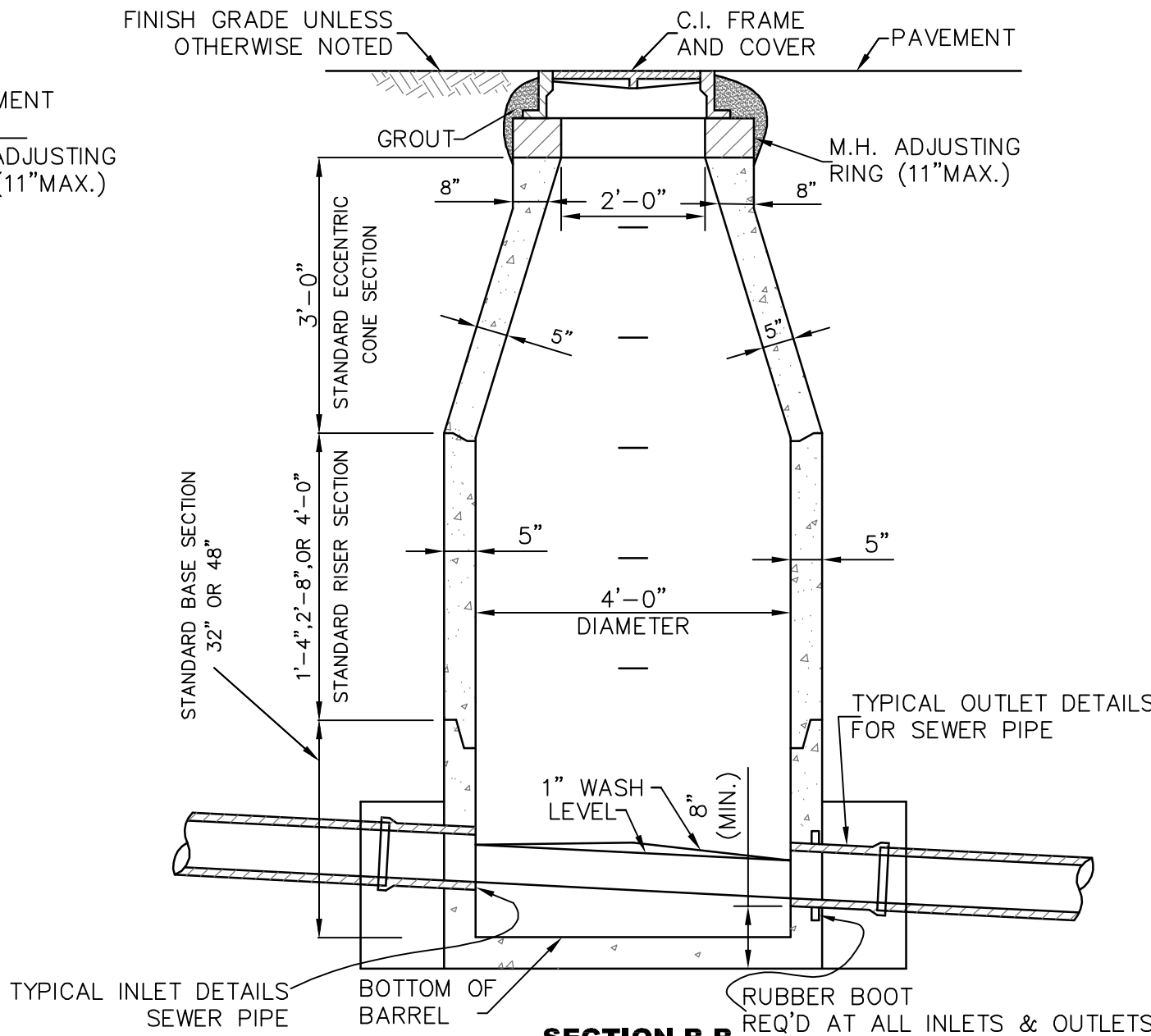


**SECTIONAL PLAN**  
**STANDARD PRECAST 4'-0" DIAMETER MANHOLE**

NOTE: 5'-0" & 6'-0" DIAMETER MANHOLE MAY BE SIMILAR DESIGN IF APPROVED BY THE ENGINEER. SHOWN WITH CLAY OR CONCRETE PIPE

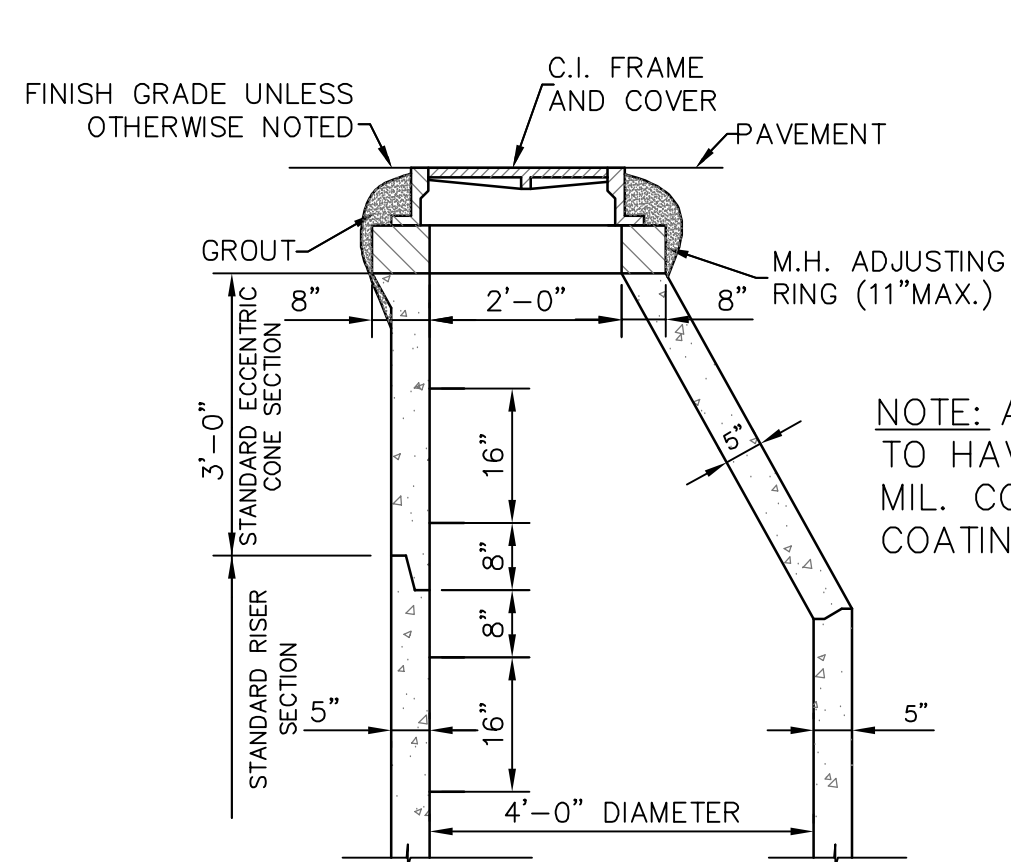


**SECTION A-A**  
**SHOWN WITH MANHOLE BOTTOM-PRECAST**



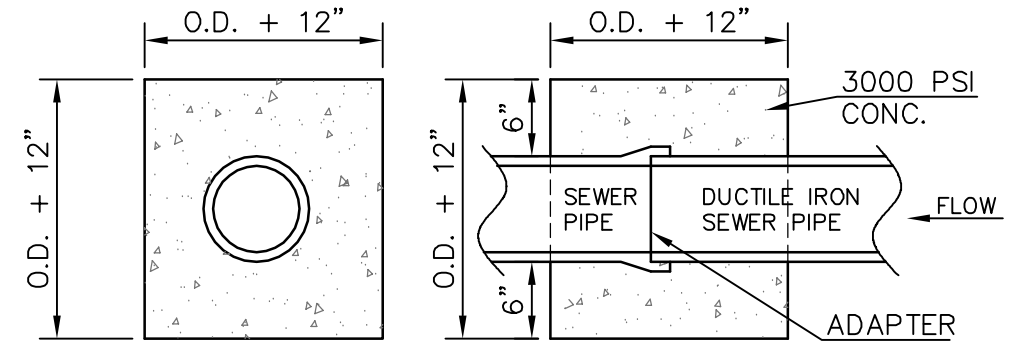
**SECTION B-B**  
**SHOWN WITH MANHOLE BOTTOM CAST-IN-PLACE**

NOTE: CAST-IN-PLACE MANHOLE BOTTOMS SHALL HAVE #4 BARS 12" O.C.E.W. 4" ABOVE BOTTOM OF SLAB EXTENDING TO 3" OF EDGE OF SLAB. CAST-IN-PLACE BOTTOMS SHALL BE A MIN. OF 8" THICK.



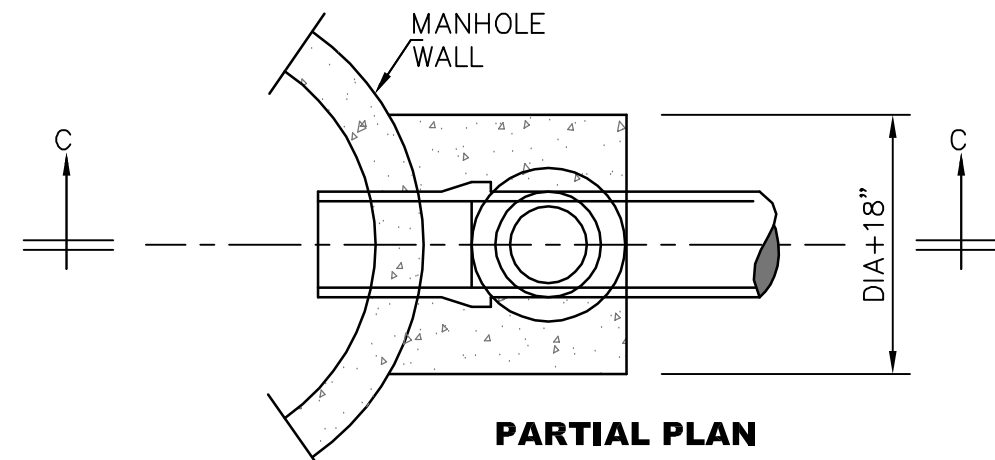
**STANDARD ECCENTRIC CONE**  
**FOR ALL DIAMETER MANHOLES**

NOTE: DETAILS FOR RISER & BASE SECTIONS ARE SAME AS SHOWN IN SECTION A-A & B-B.



**TYPICAL SEWER PIPE**  
**CONNECTION TO SAME SIZE**  
**DUCTILE IRON SEWER PIPE**

NOTE: DROP MANHOLE ASSEMBLY TO BE FORMED AND POURED USING 3,000psi CONC.



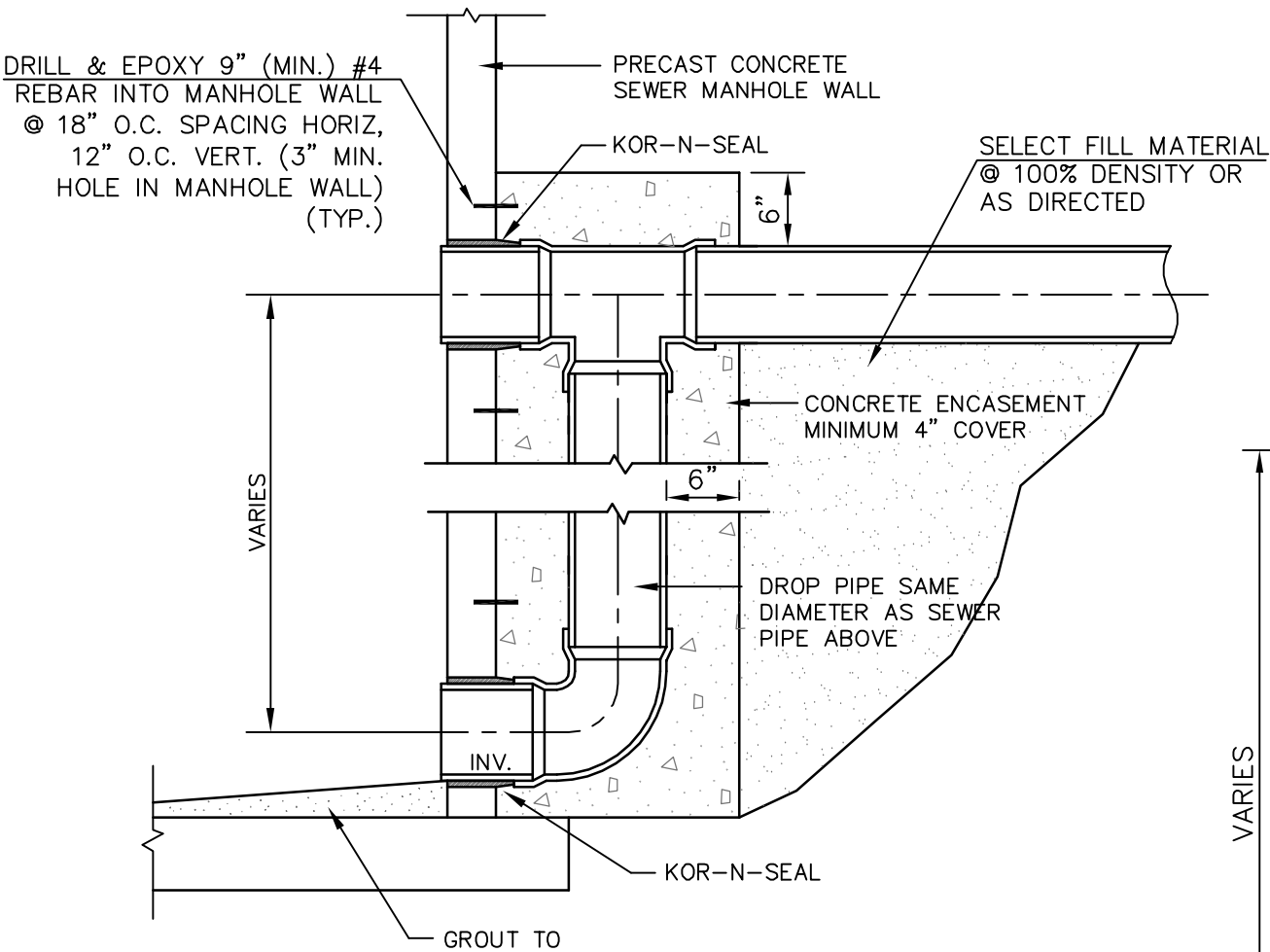
**TYPICAL DROP MANHOLE ASSEMBLY**

**NOTE:**

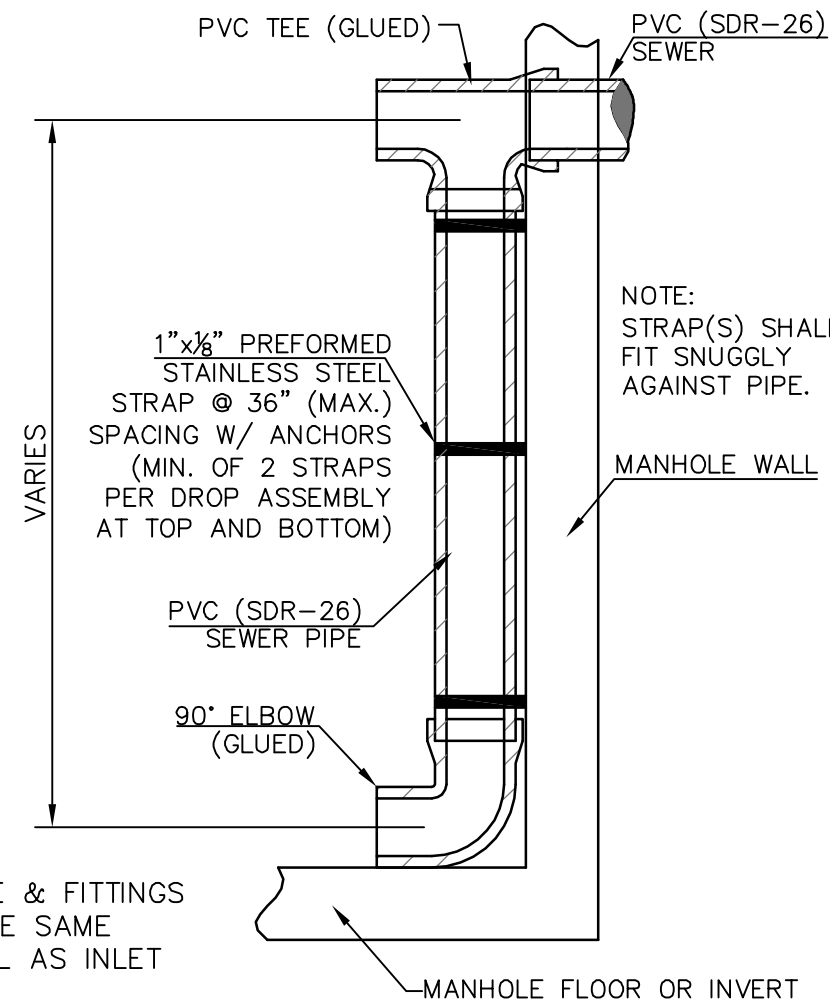
ALL MANHOLES SHALL BE STANDARD PRECAST WITH EXTENDED BASES, UNLESS OTHERWISE DIRECTED. FLEXIBLE INLET AND OUTLET CONNECTION BOOTS REQUIRED ON ALL PIPES AND FORCE MAINS.

| TABLE NO. 1<br>GOVERNING DIMENSIONS FOR MANHOLES |            |                                                                       |        |  |
|--------------------------------------------------|------------|-----------------------------------------------------------------------|--------|--|
| PIPE SIZE                                        | Ø ANGLE    | MIN. BASE DIAMETER                                                    | "R"*   |  |
| 8" THRU 12"                                      | 0° TO 90°  | 4'                                                                    | 1'-6"  |  |
| 15"                                              | 0° TO 60°  | 5'                                                                    | 1'-10" |  |
| 15"                                              | 60° TO 90° | 5'                                                                    | 1'-10" |  |
| 18"                                              | 0° TO 90°  | 5'                                                                    | 2'-3"  |  |
| 18"                                              | 60° TO 90° | 5'                                                                    | 1'-10" |  |
| 21"                                              | 0° TO 90°  | 5'                                                                    | 2'-7"  |  |
| 21"                                              | 60° TO 90° | 5'                                                                    | 2'-4"  |  |
| 24"                                              | 0° TO 45°  | 6'                                                                    | 3'-0"  |  |
| 24"                                              | 45° TO 90° | 6'                                                                    | 2'-3"  |  |
| 30"                                              | 0° TO 60°  | 6'                                                                    | 3'-9"  |  |
| 30"                                              | 60° TO 90° | 6'                                                                    | 2'-8"  |  |
| 36"                                              | 0° TO 30°  | 7'                                                                    | 4'-6"  |  |
| 36" AND LARGER                                   | 0° TO 90°  | CAST IN PLACE MANHOLE BASE OR PRE-BED PIPE M.H. BASE AND ELBOW UNITS. |        |  |

\* SEE SECTIONAL PLAN, STD. PRECAST MANHOLE



**DETAIL "B"**  
**SECTION C-C**

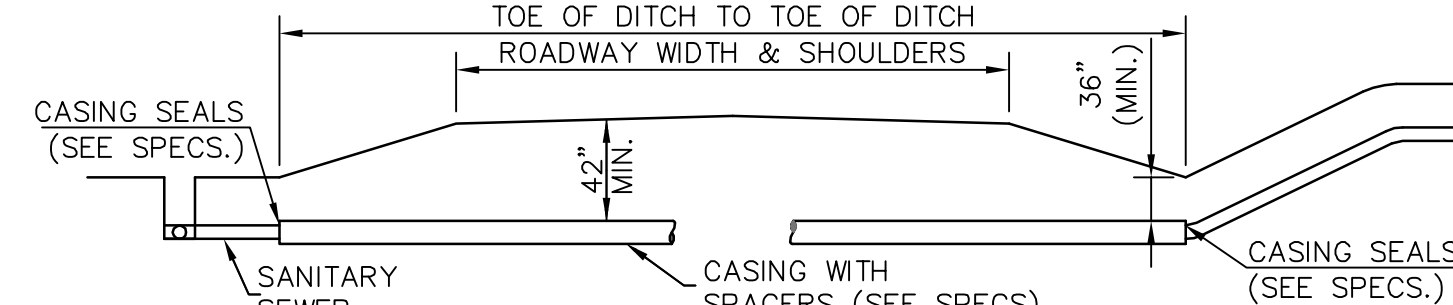


**DETAIL "A"**  
**SECTION C-C**

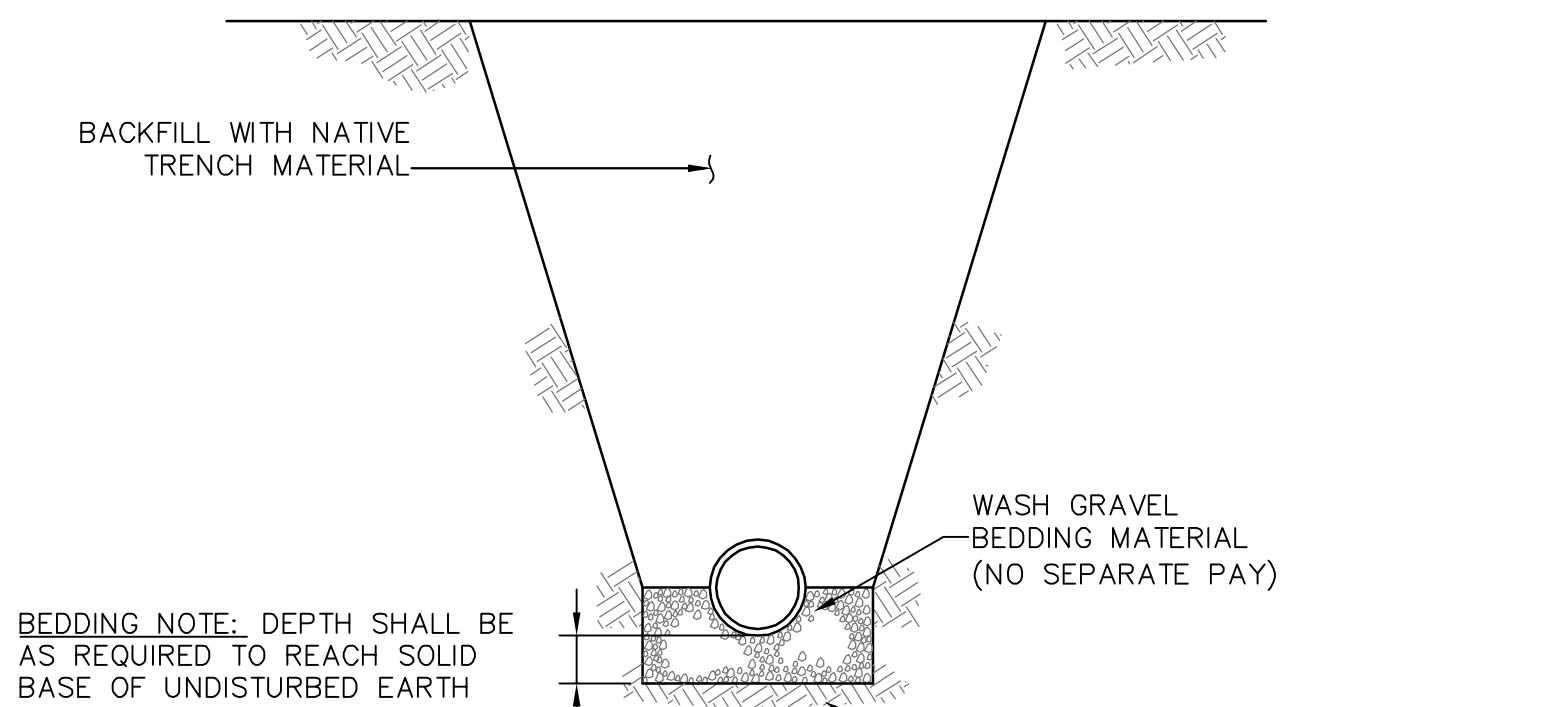
**TYPICAL DROP MANHOLE ASSEMBLY**

- NOTES:
1. USE DETAIL "A" ONLY WHERE SINGLE DROP ASSEMBLY IS REQ'D. FOR MULTIPLE DROPS USE DETAIL "B" SHOWN ELSEWHERE ON THIS SHEET FOR 48" MANHOLE. FOR MULTIPLE DROP ASSEMBLIES IN LARGER MANHOLES, DROPS SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
  2. ALL HARDWARE SHALL BE STAINLESS STEEL.
  3. ALL APPURTENANCES SHALL BE INCLUDED IN BID PRICE FOR DROP ASSEMBLIES.

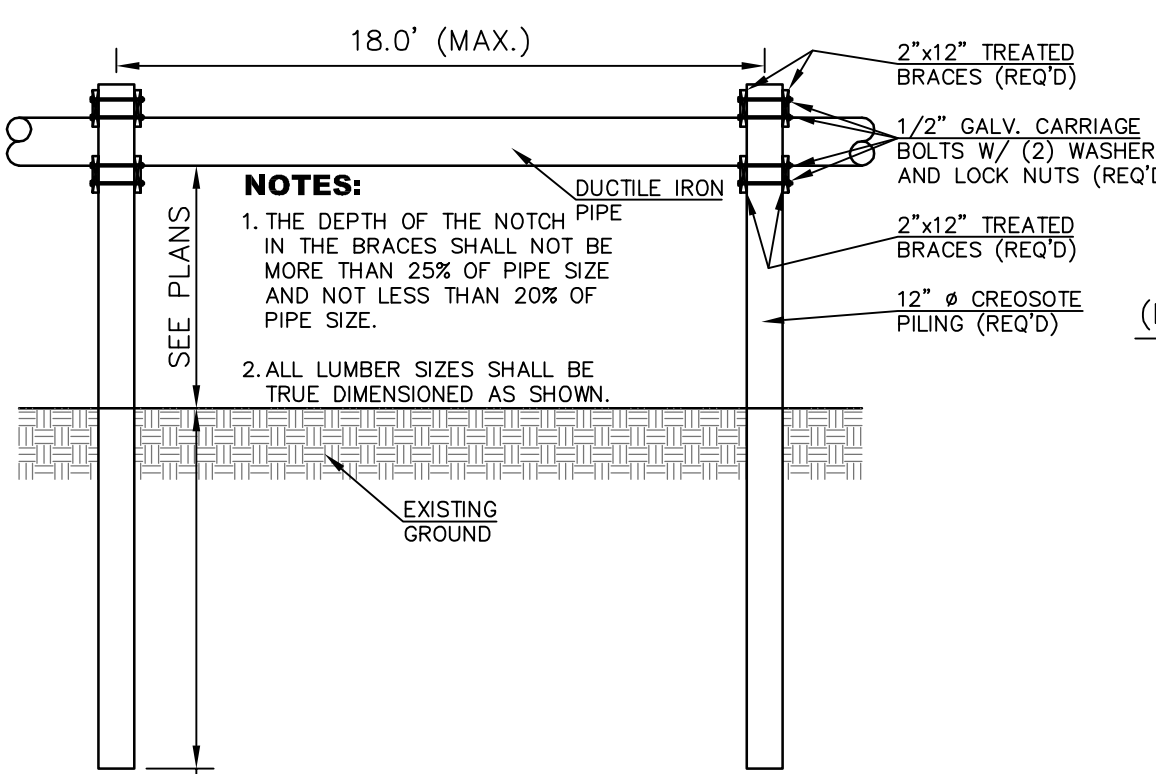
NOTE: ALL TESTING TO BE THE RESPONSIBILITY OF THE CONTRACTOR. (NO SEPARATE PAY)



**ROAD BORE DETAIL**

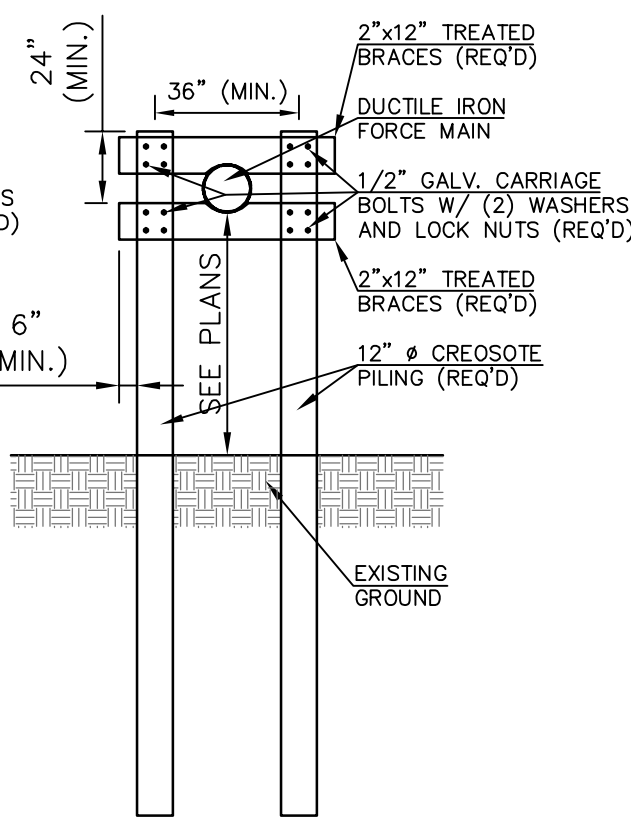


**TYPICAL TRENCH DETAIL**  
**(NON PAVED AREAS)**



**SIDE VIEW**

**TREATED WOOD PIPE PIERS**



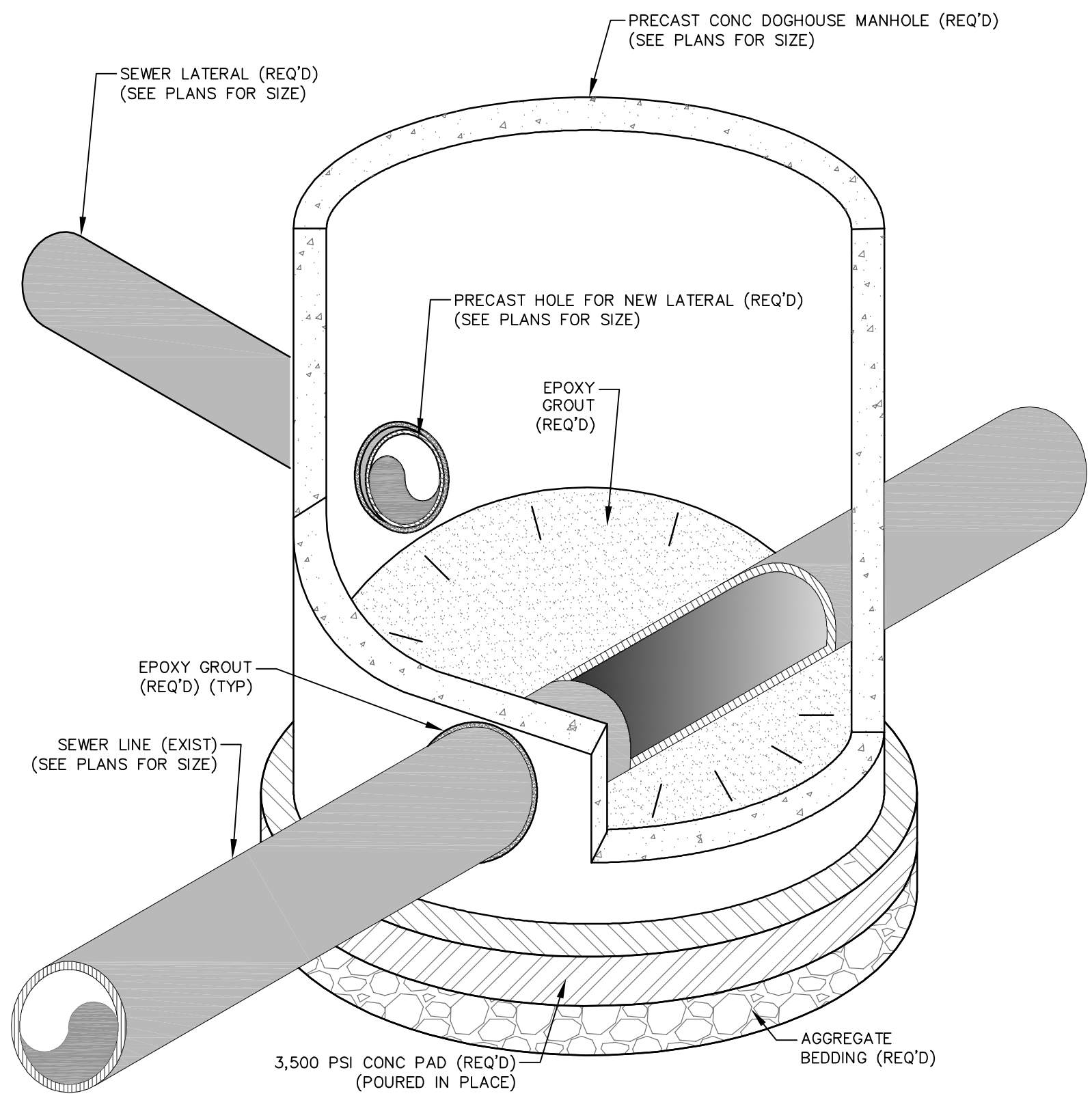
**FRONT VIEW**

**GENERAL NOTES:**

1. ALL ELEMENTS SHALL CONFORM TO PRECAST MANHOLE SPECIFICATION. A.S.T.M. C-478 LATEST REVISION.
2. PRECAST CONCRETE RINGS SHALL BE USED TO BRING MANHOLE FRAME AND COVER TO GRADE USE (11" MAX. RISE).
3. MANHOLES IN PAVED AREAS SHALL BE FURNISHED WITH ADJUSTING RINGS.

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| NO.                                                                                       | DATE       | DESCRIPTION  | BY   |
| SEWER INSTALLATION DETAILS                                                                |            |              |      |
| INFRASTRUCTURE REHABILITATION<br>CITY OF HATTIESBURG<br>FORREST COUNTY, MISSISSIPPI       |            |              |      |
| sdw<br>Engineering Progress                                                               |            |              |      |
| 301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |            |              |      |
| Drawn by:                                                                                 | RES\BT     | Checked by:  | SEM  |
| Date:                                                                                     | 05-04-2018 | Working No.: | SSD1 |
| Drawing No.:                                                                              | 11258      | Sheet No.:   | 15   |



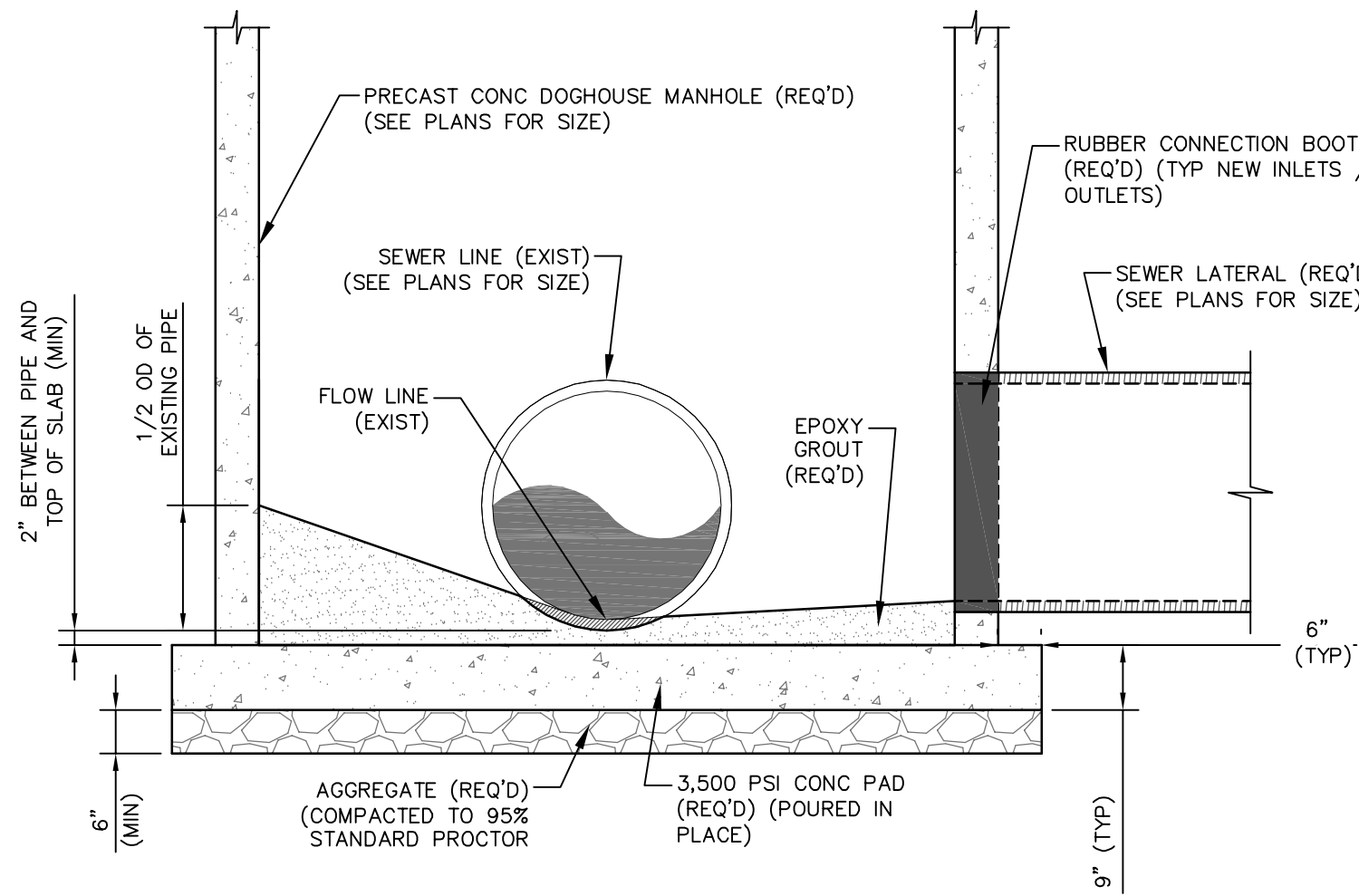


ISOMETRIC VIEW

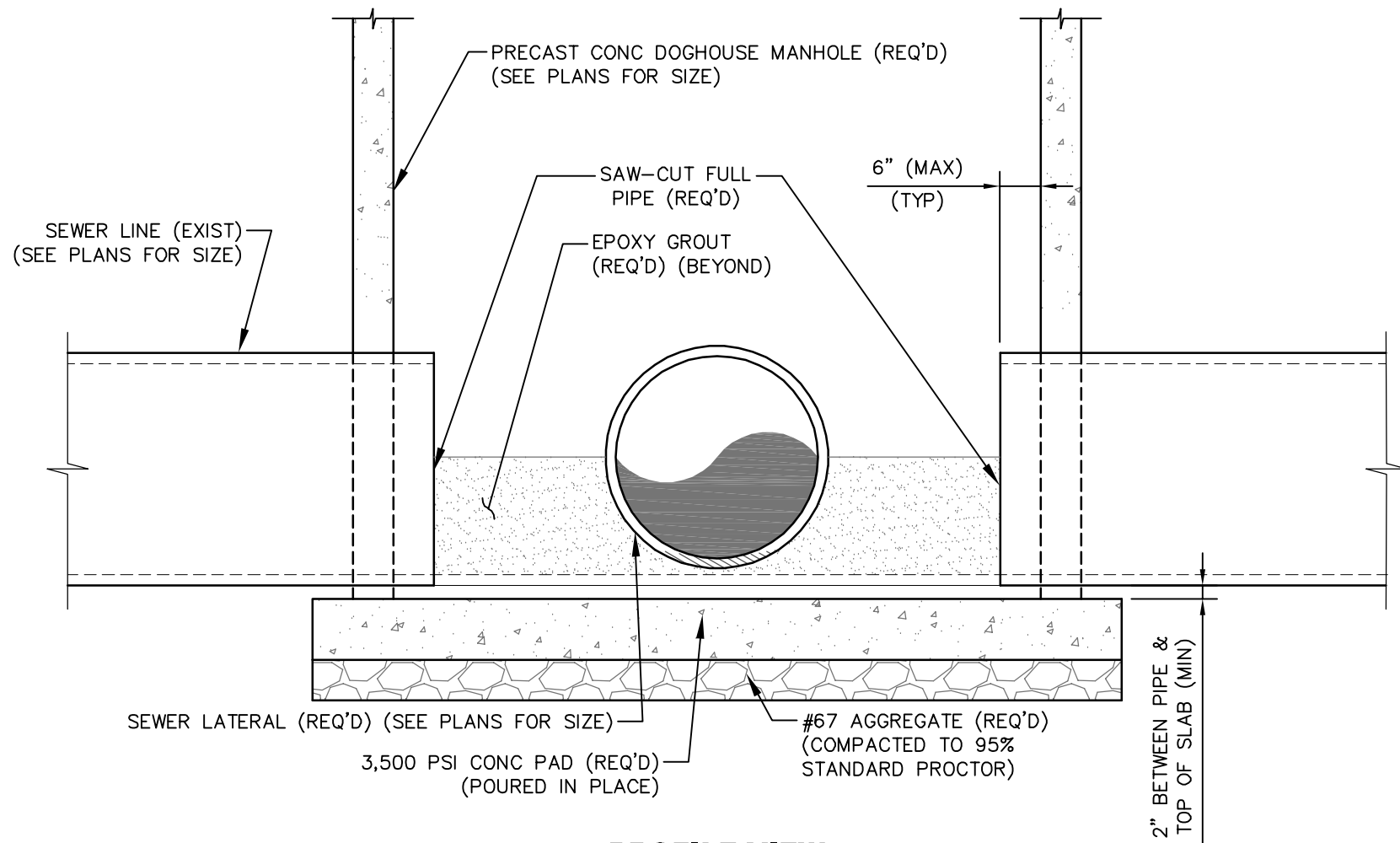
**DOGHOUSE MANHOLE NOTES:**

1. FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.
2. THIS DETAIL SHALL BE USED WHEN A LATERAL NECESSITATES CONSTRUCTION OF A NEW MANHOLE.
3. CONCRETE MANHOLE PAD SHALL BE POURED IN PLACE AND SHALL BE POURED UPON A #67 AGGREGATE BEDDING.
4. AGGREGATE BEDDING SHALL HAVE A
5. ALL PARTS OF THE DOGHOUSE MANHOLE CONSTRUCTION, CONCRETE PAD, AGGREGATE BASE, GROUT, ETC, SHALL BE PAID UNDER DOGHOUSE' MANHOLE ITEM.

MINIMUM DEPTH OF 6" AND SHALL BE COMPACTED TO 95% STANDARD PROCTOR PRIOR TO CONSTRUCTION OF CONCRETE PAD.

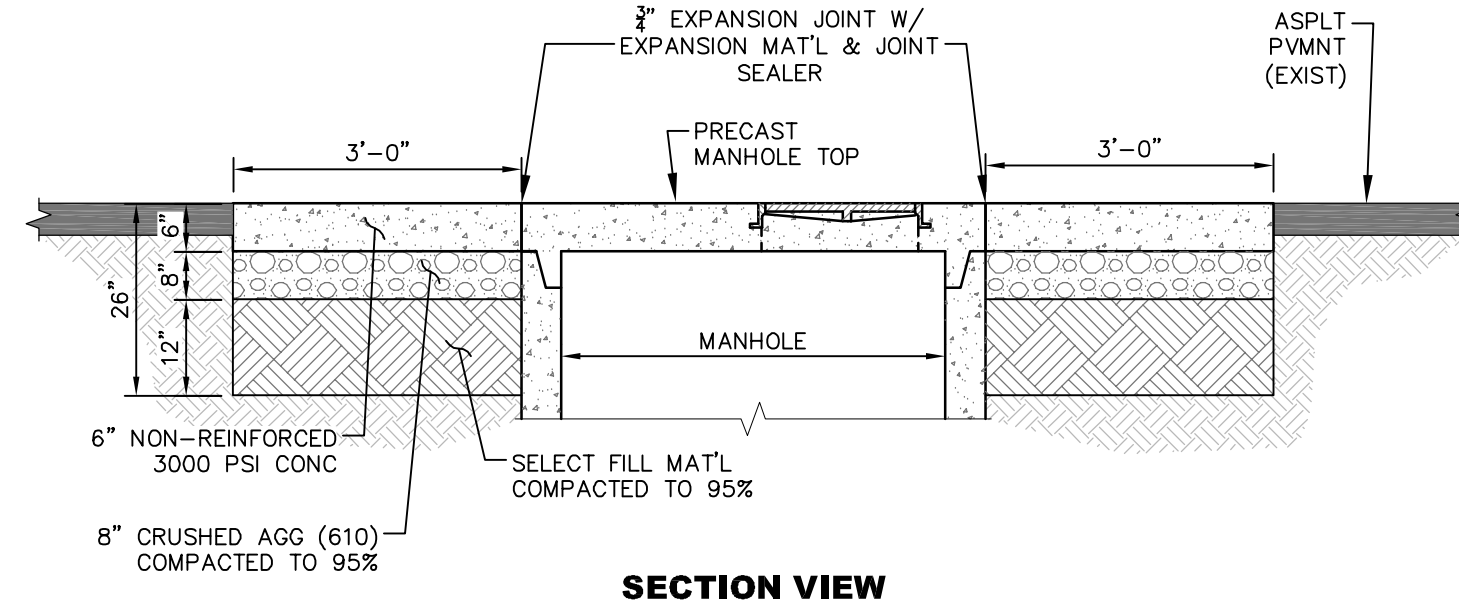


SECTION VIEW

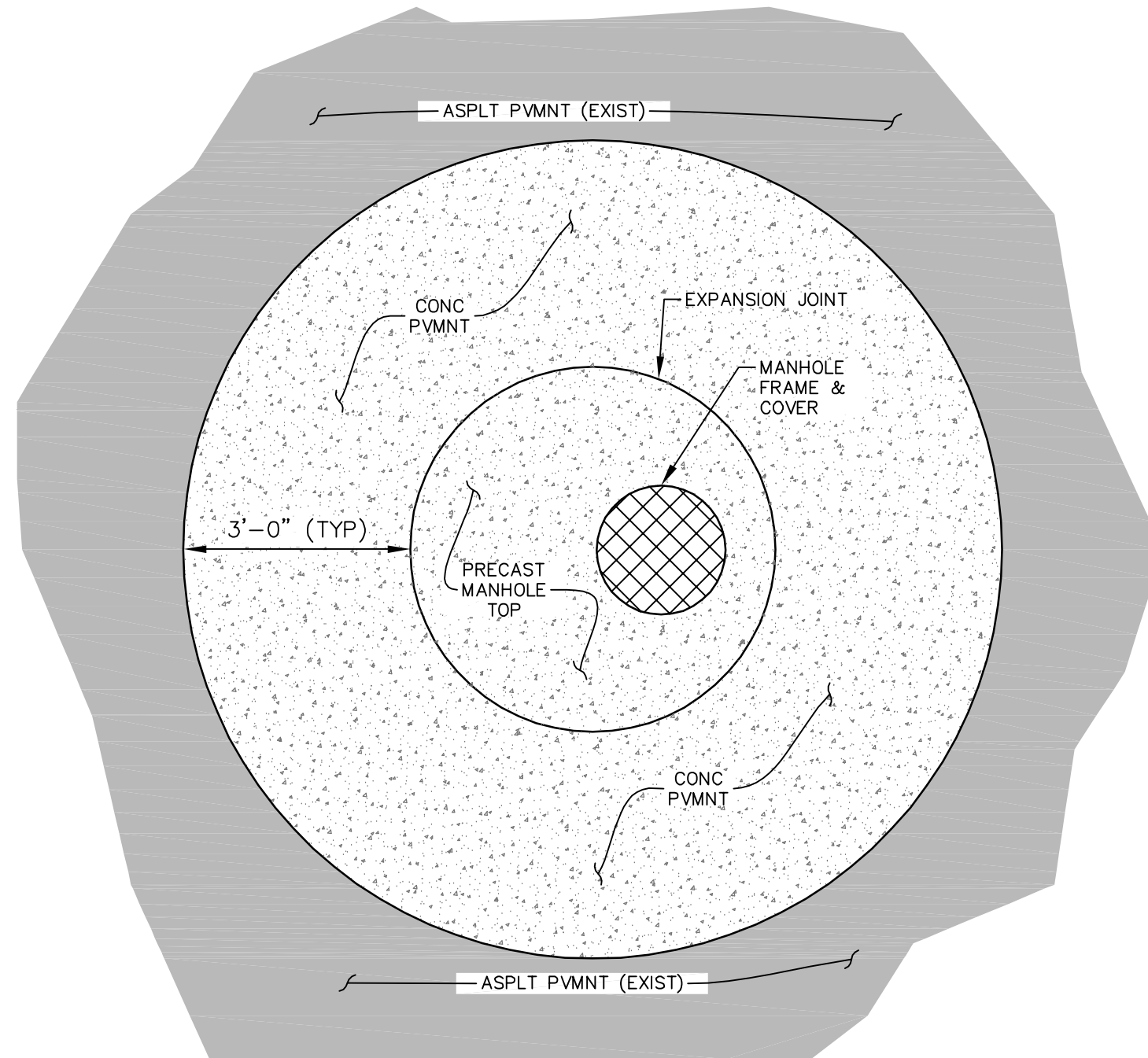


PROFILE VIEW

**DOGHOUSE MANHOLE DETAIL**

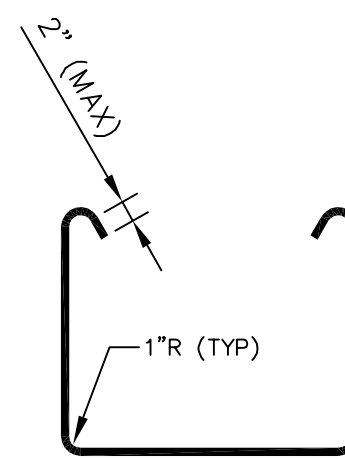


SECTION VIEW

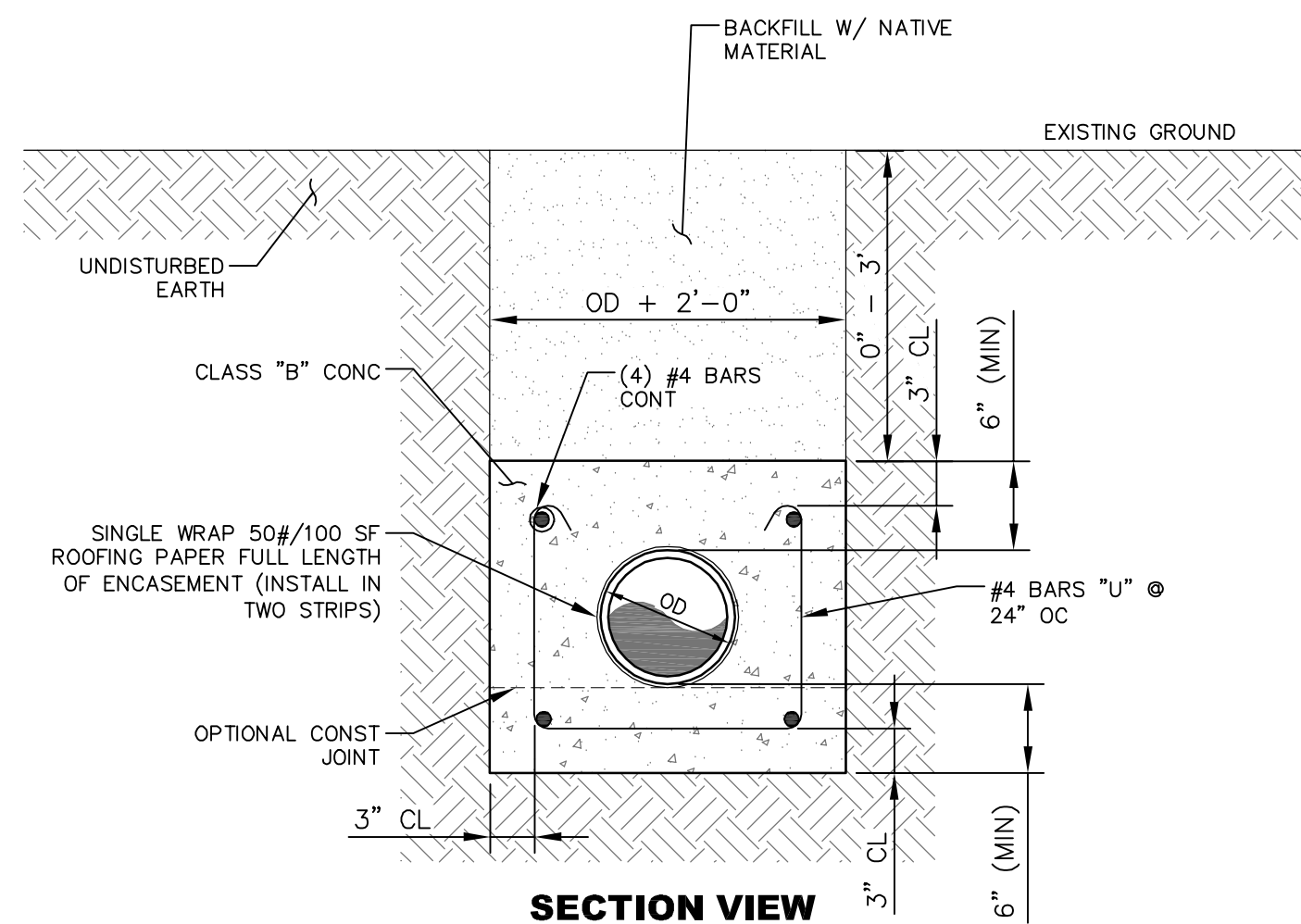


PLAN VIEW

**TYPICAL ADDITIONAL PAVING DETAIL @ FLAT TOP MANHOLE**

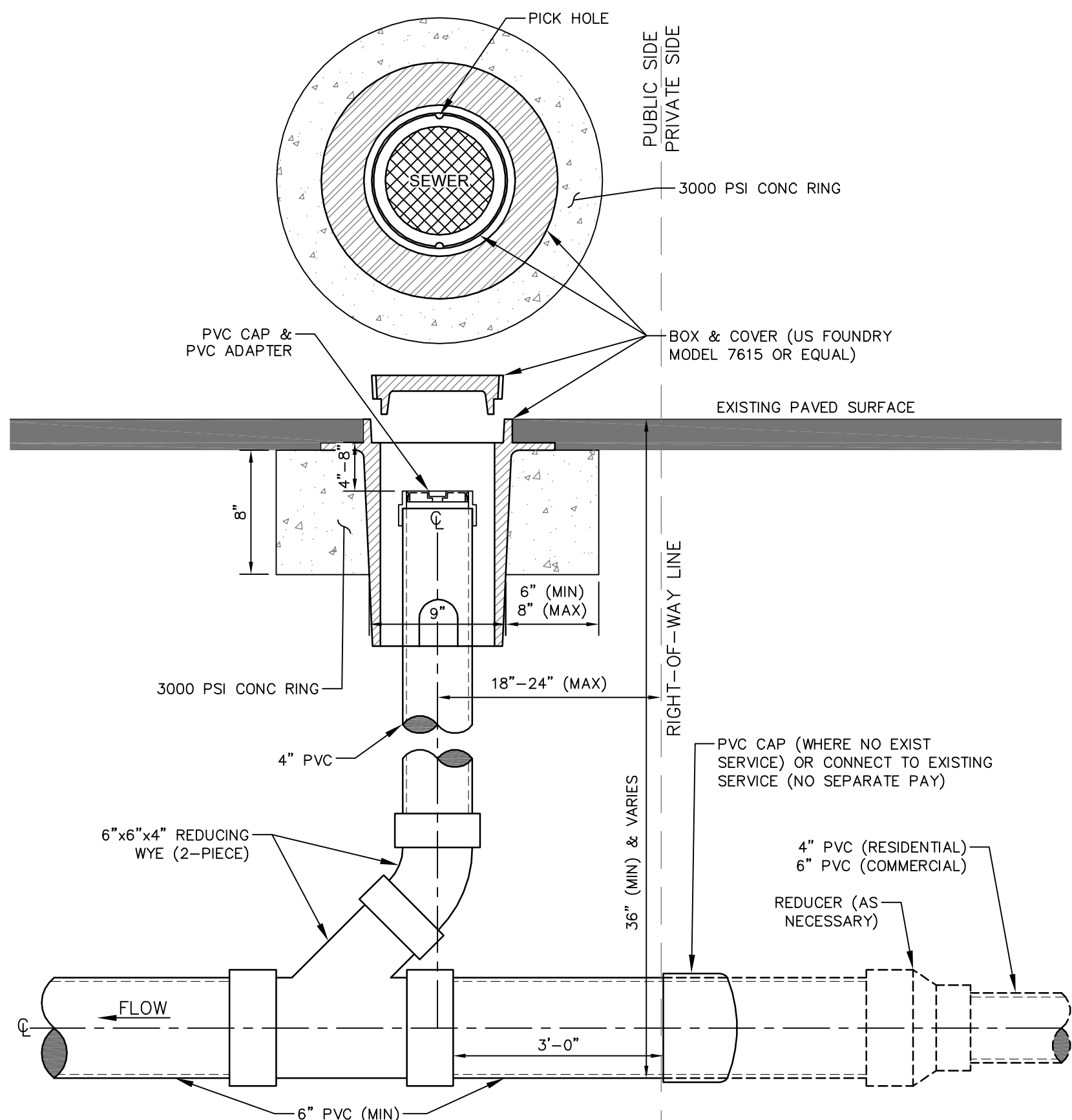


**BAR "U" DETAIL**



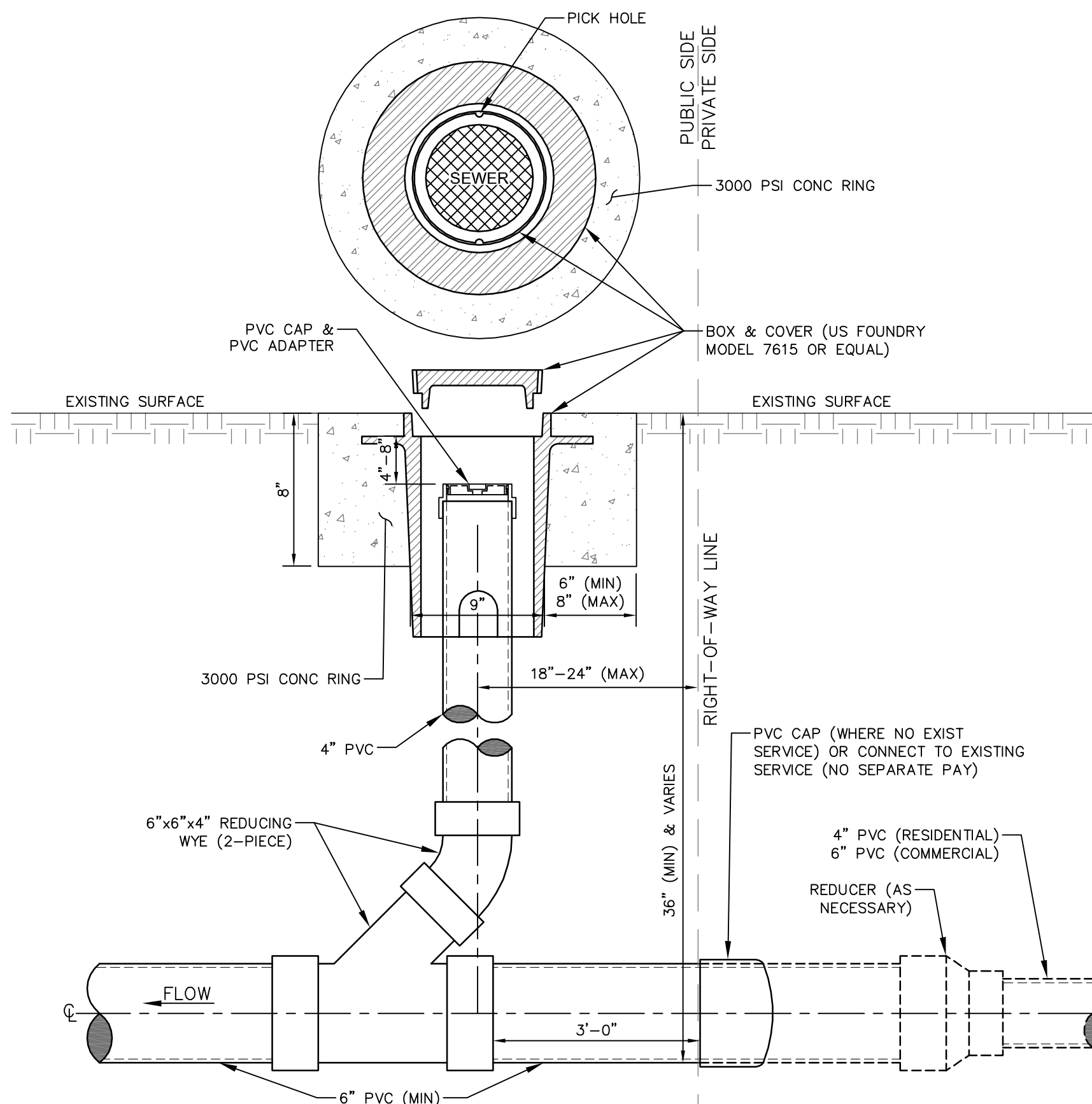
SECTION VIEW

**CONCRETE ENCASEMENT FOR LOW COVER DETAIL**



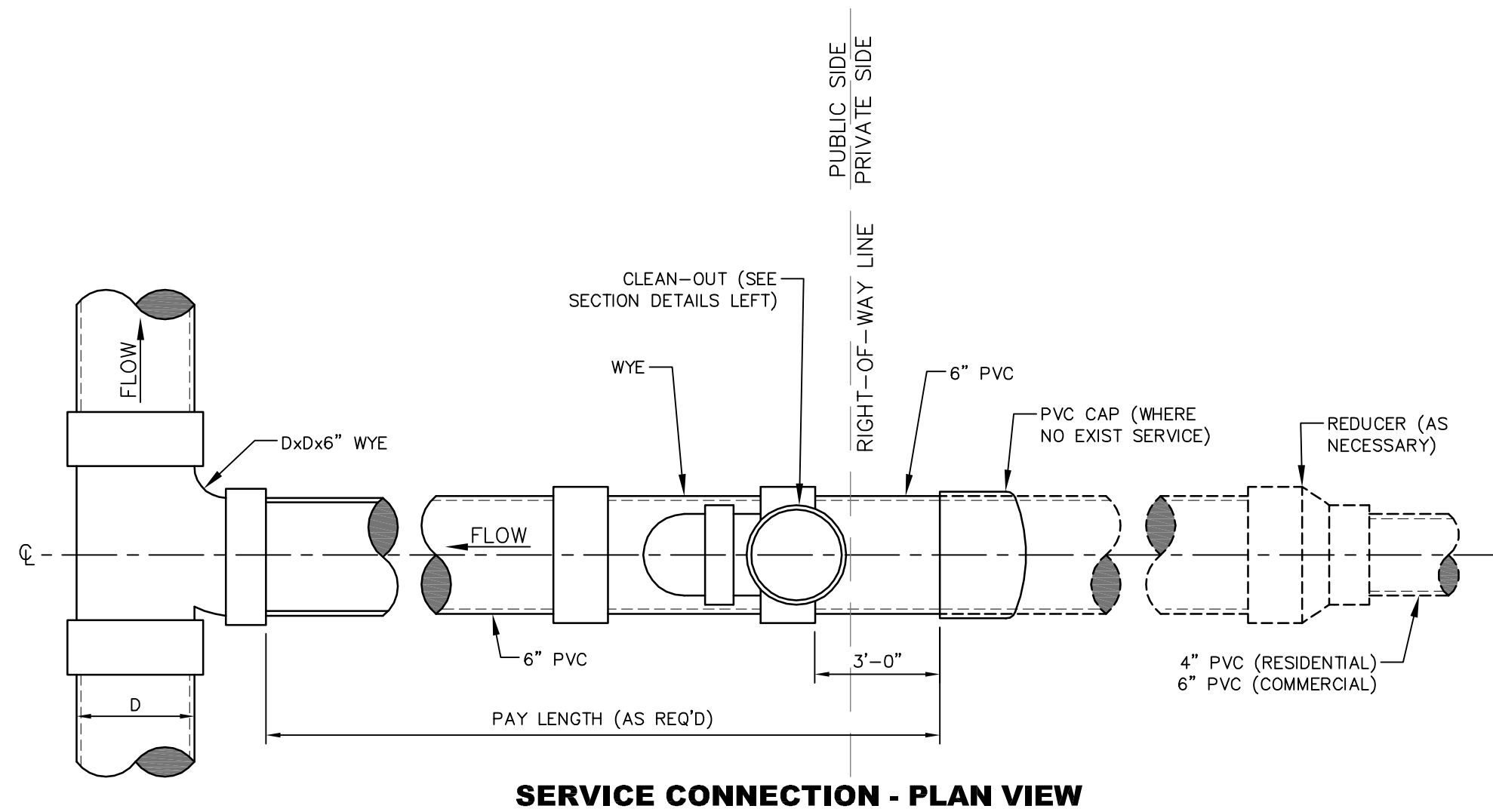
**SANITARY SEWER CLEANOUT DETAIL - SECTION VIEW**

FOR PAVED AREA



**SANITARY SEWER CLEANOUT DETAIL - SECTION VIEW**

FOR NON-PAVED AREA



SERVICE CONNECTION - PLAN VIEW

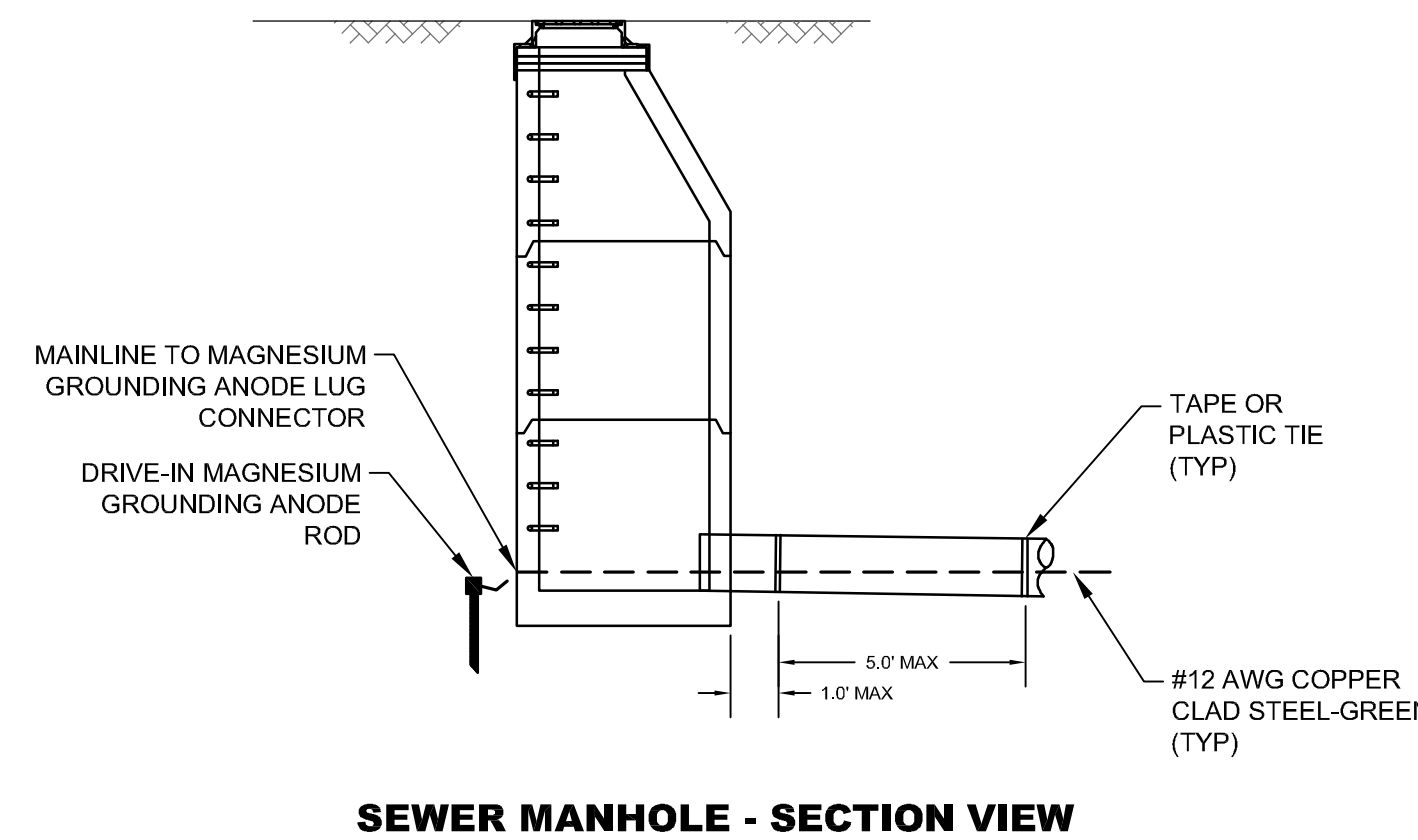
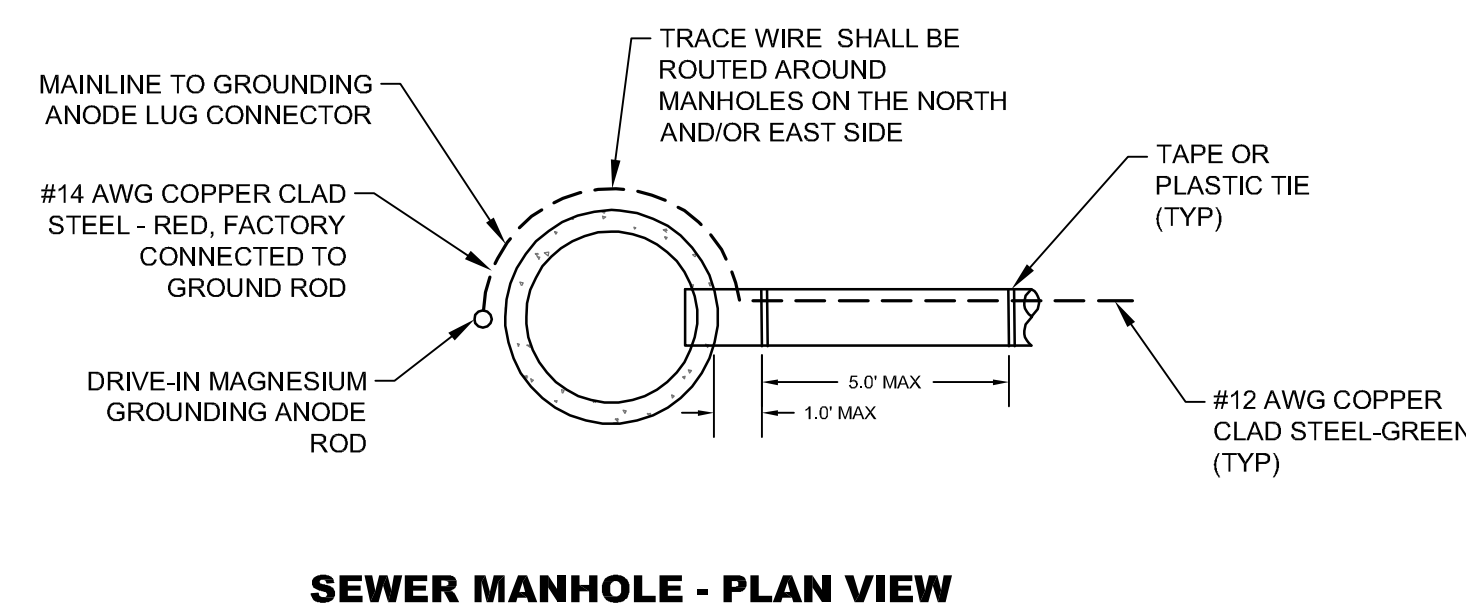
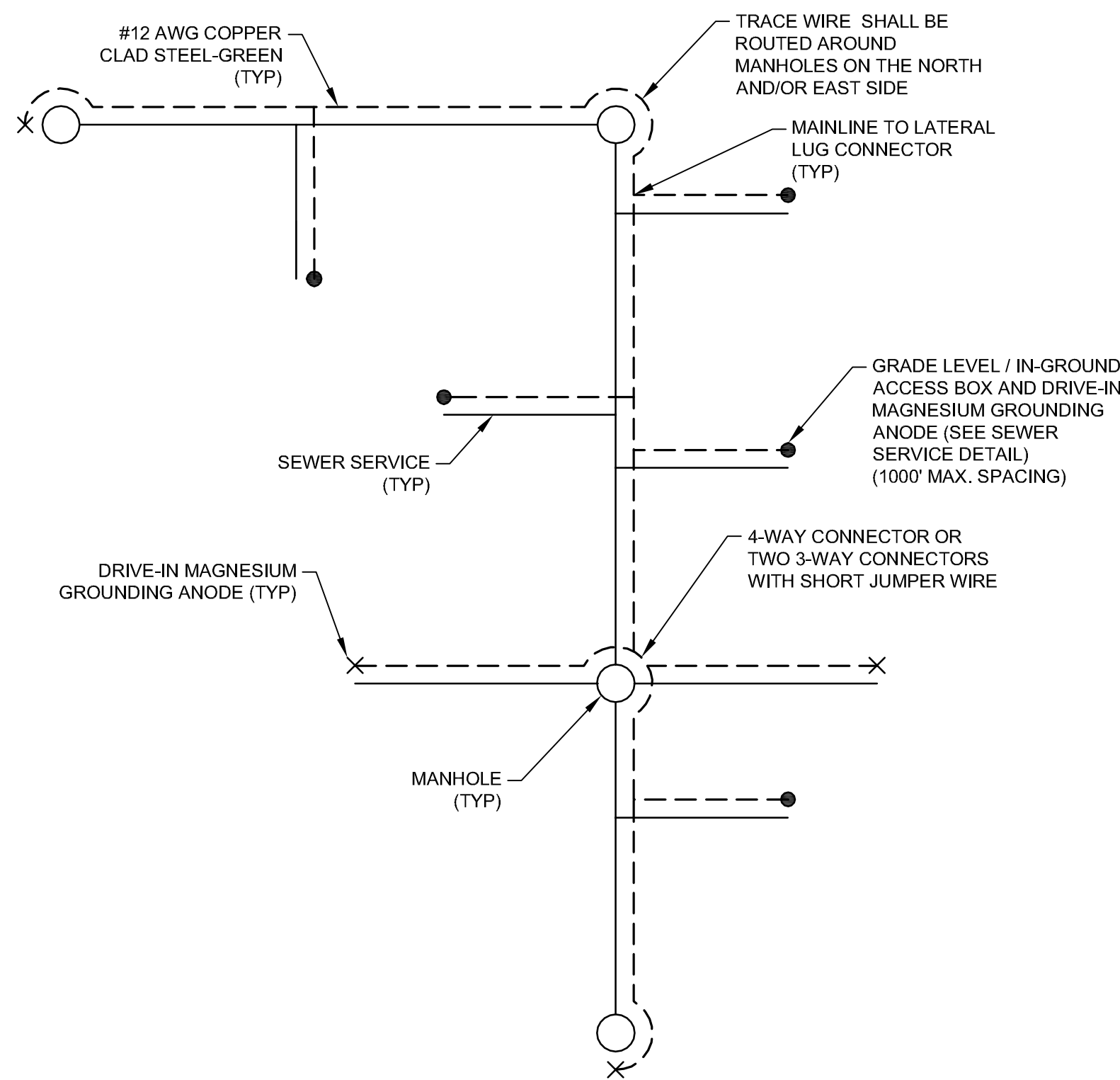
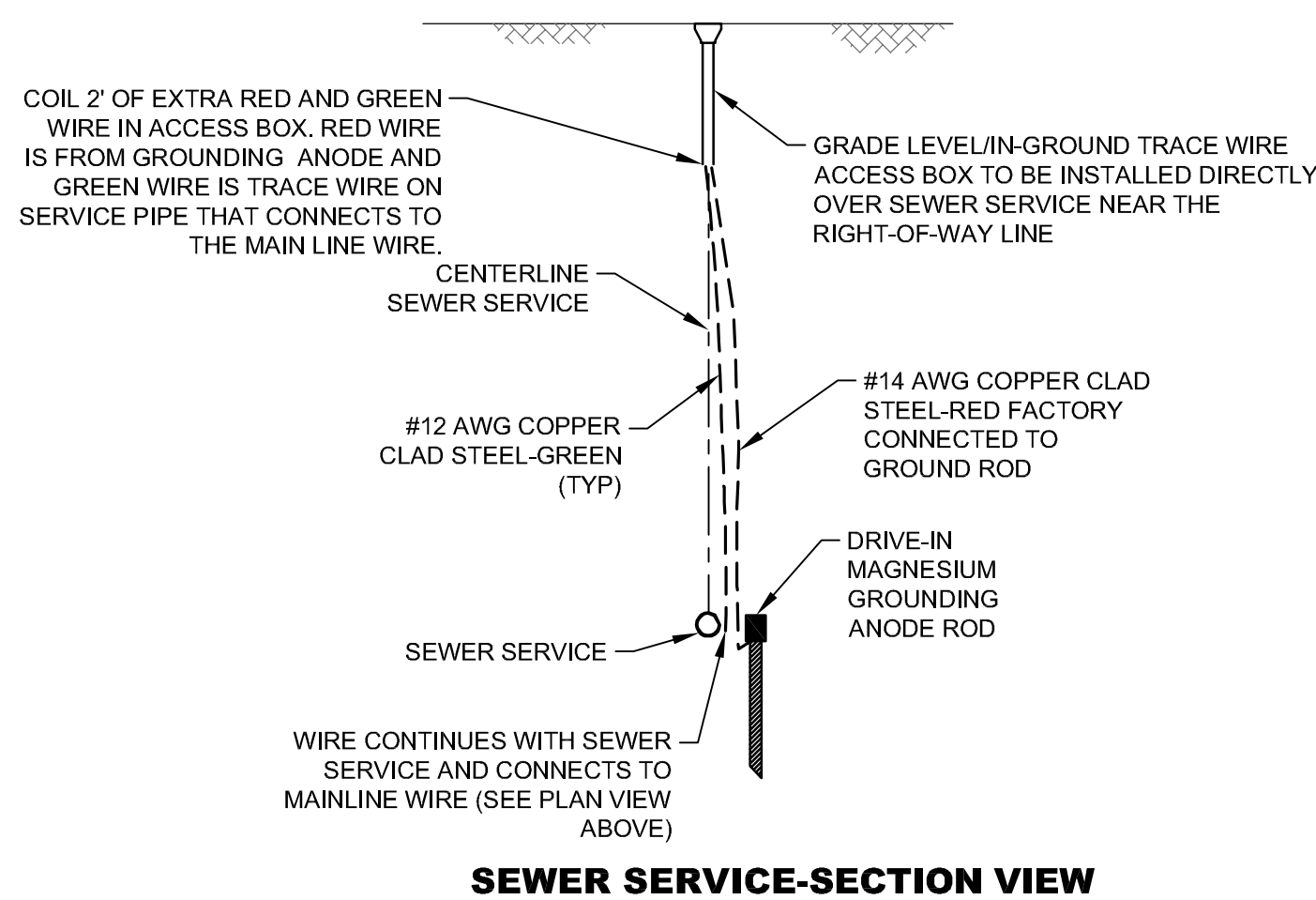
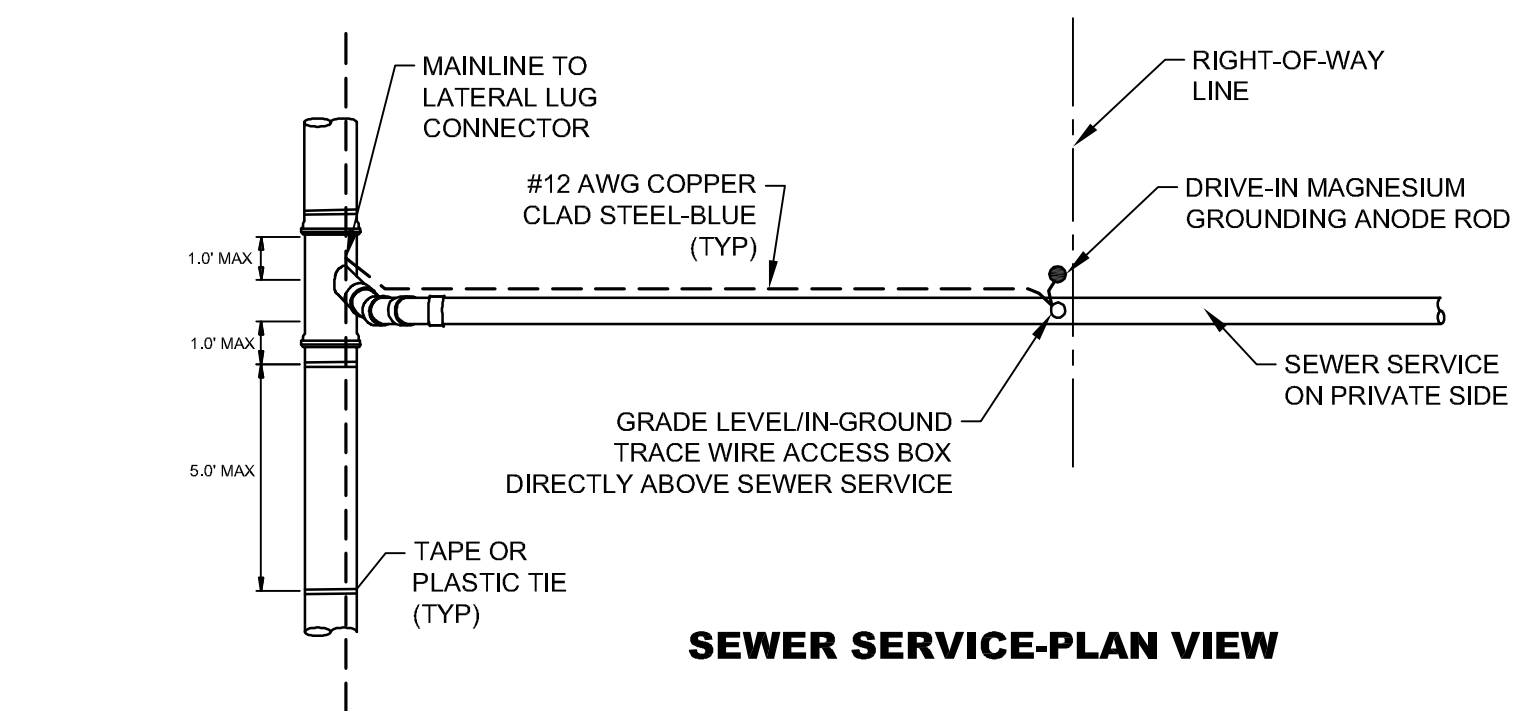
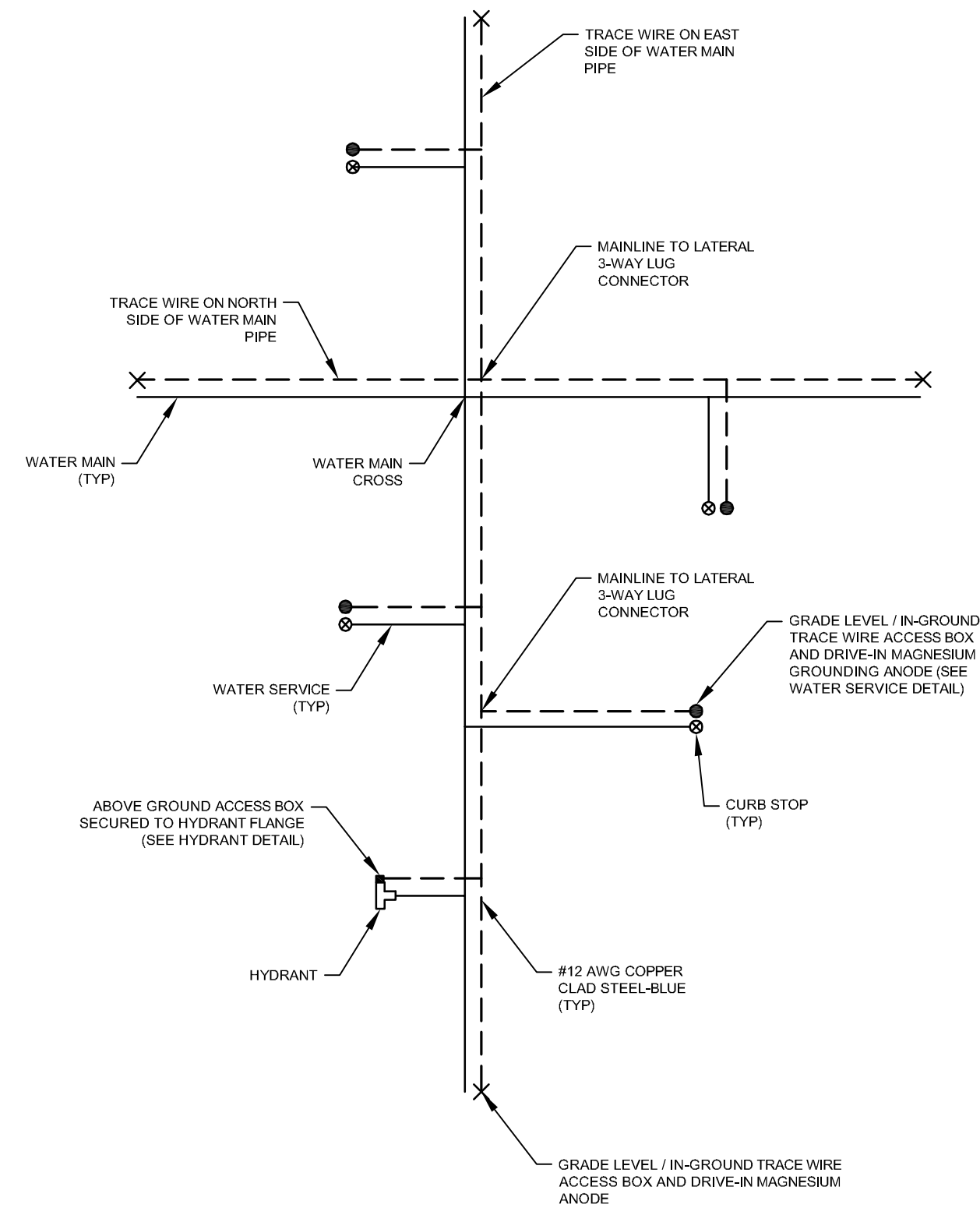
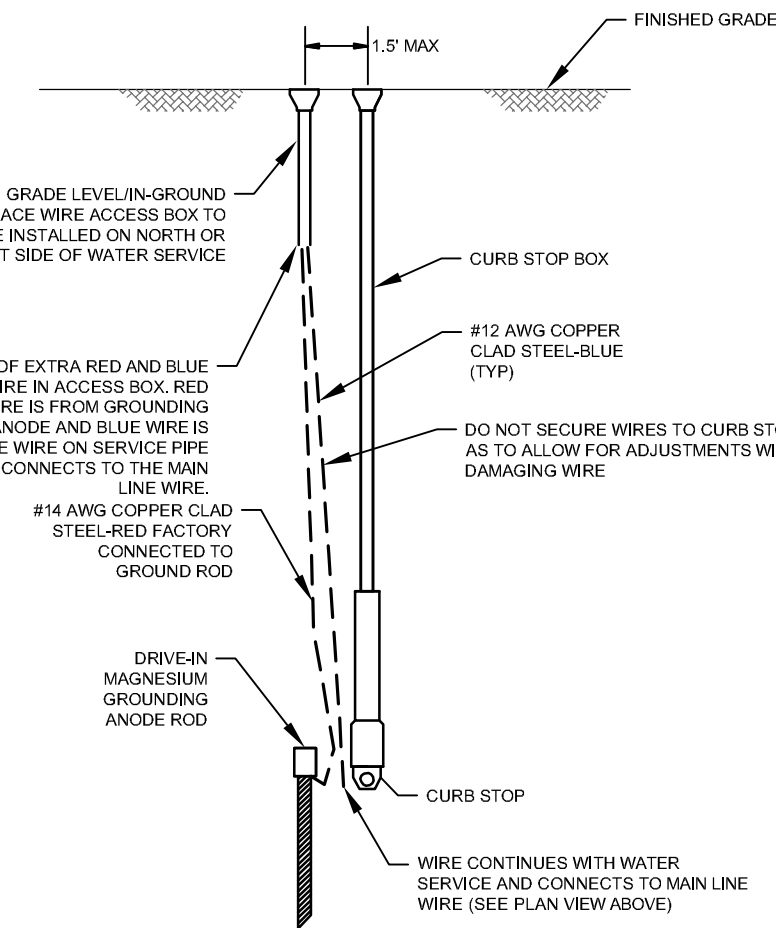
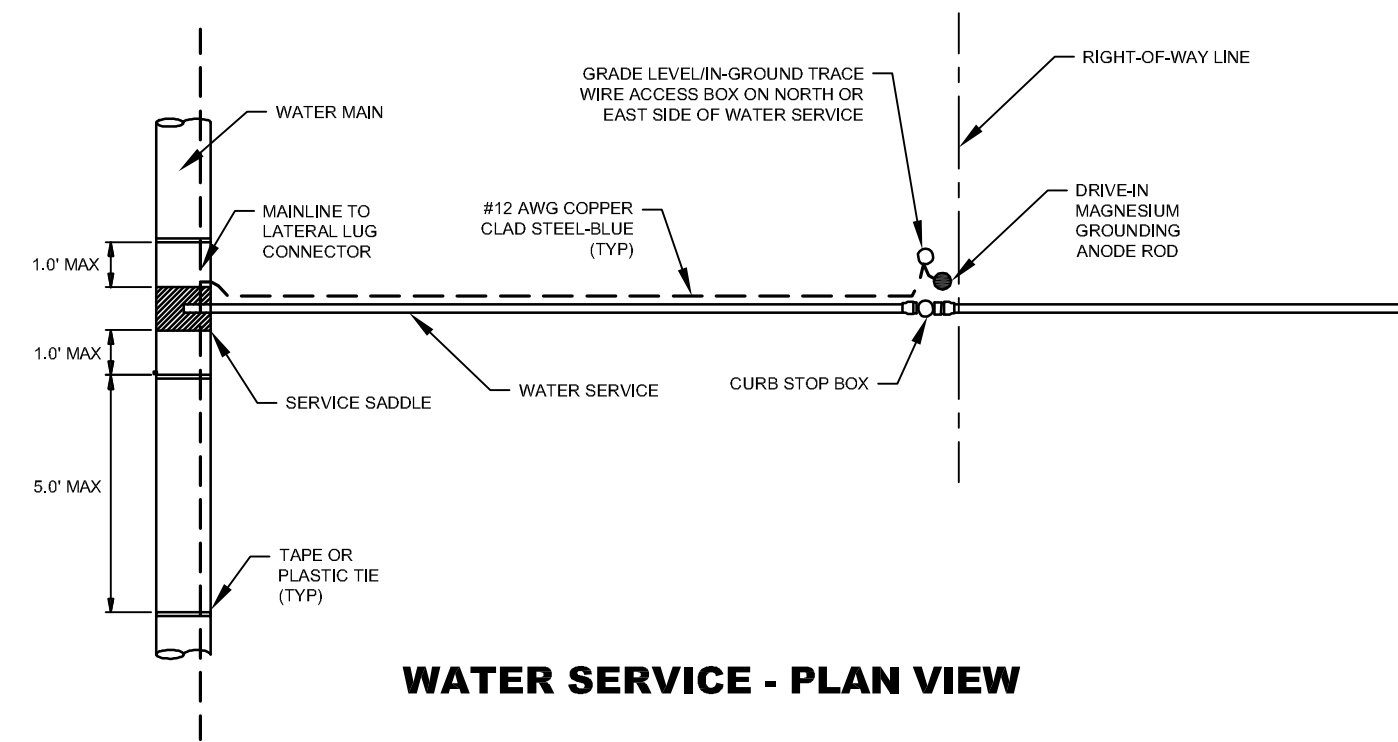
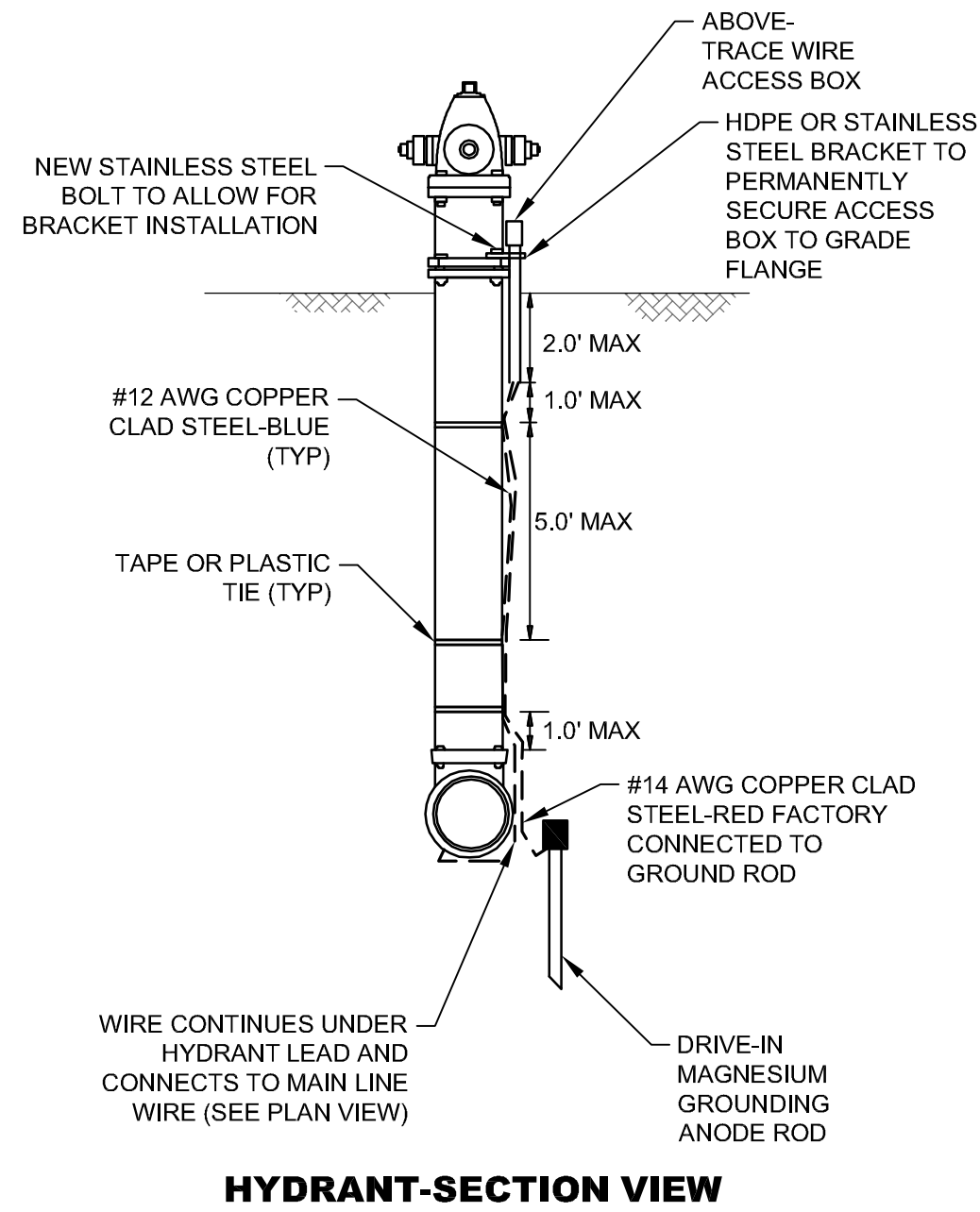
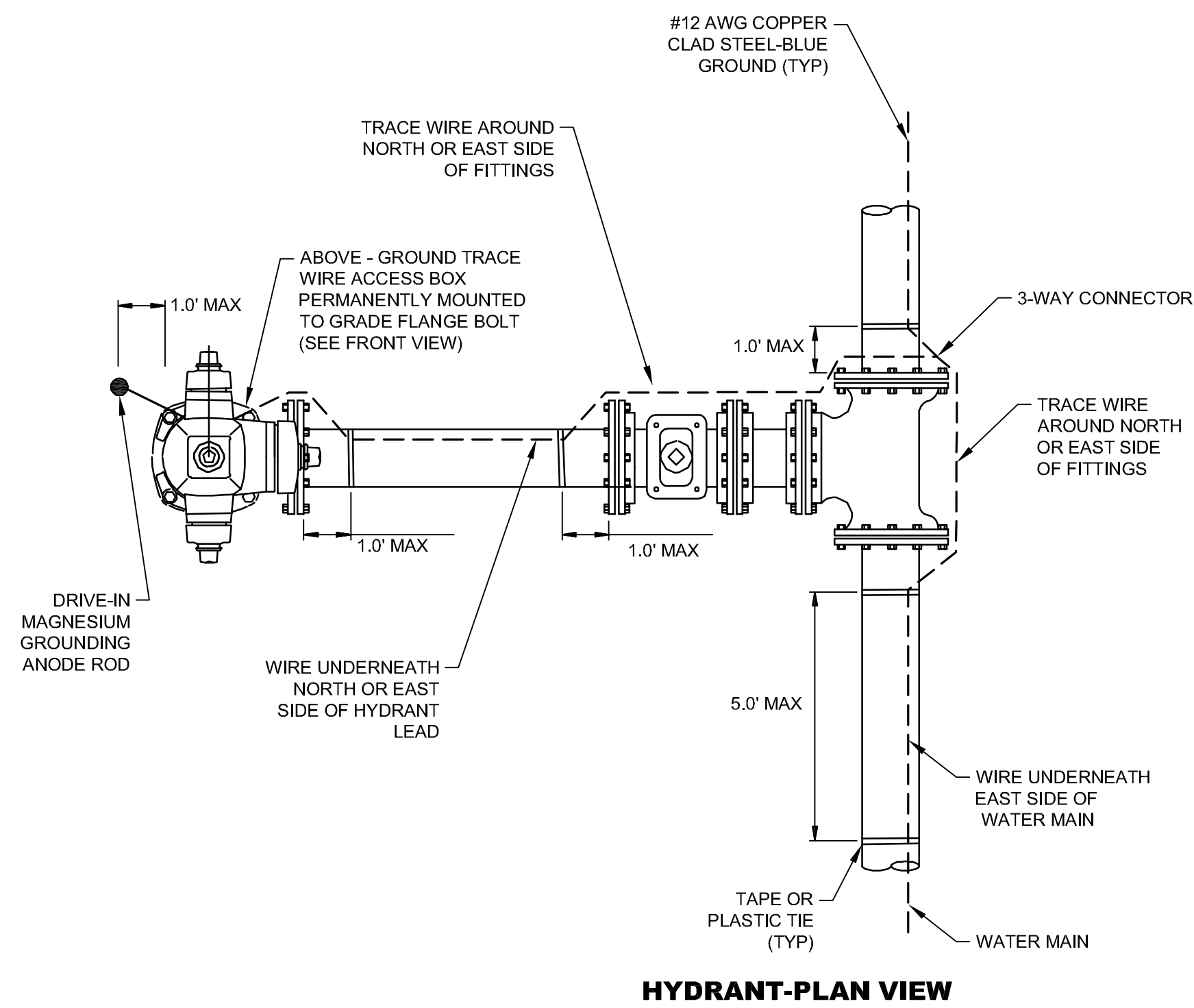
**CLEANOUT NOTE:**

CLEANOUTS SHALL BE PLACED AT ALL BENDS IN SERVICE LINES OVER 22.5' AND ALL CHANGES IN GRADE. CLEANOUTS SHALL BE PLACED AT ROW LINES AS DETAILED.

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| NO.                                                                                      | DATE       | DESCRIPTION  | BY   |
| SEWER INSTALLATION DETAILS                                                               |            |              |      |
| INFRASTRUCTURE REHABILITATION<br>CITY OF HATTIESBURG<br>FORREST COUNTY, MISSISSIPPI      |            |              |      |
| sdw<br>Engineering Progress                                                              |            |              |      |
| 301 Second Ave.   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |            |              |      |
| Drawn by:                                                                                | RES\BT     | Checked by:  | SEM  |
| Date:                                                                                    | 05-04-2018 | Working No.: | SSD2 |
| Drawing No.:                                                                             | 11258      | Sheet No.:   | 16   |



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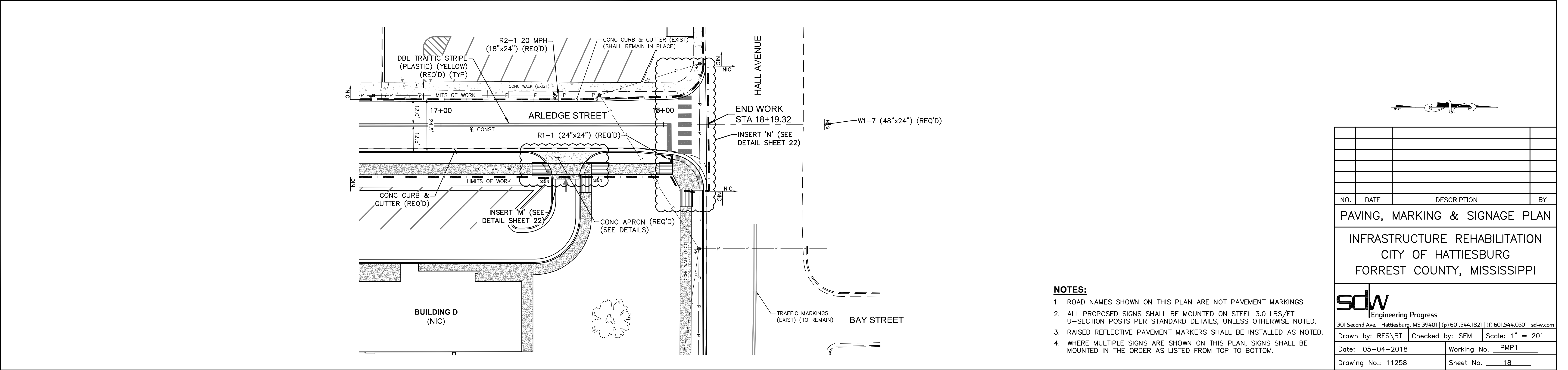
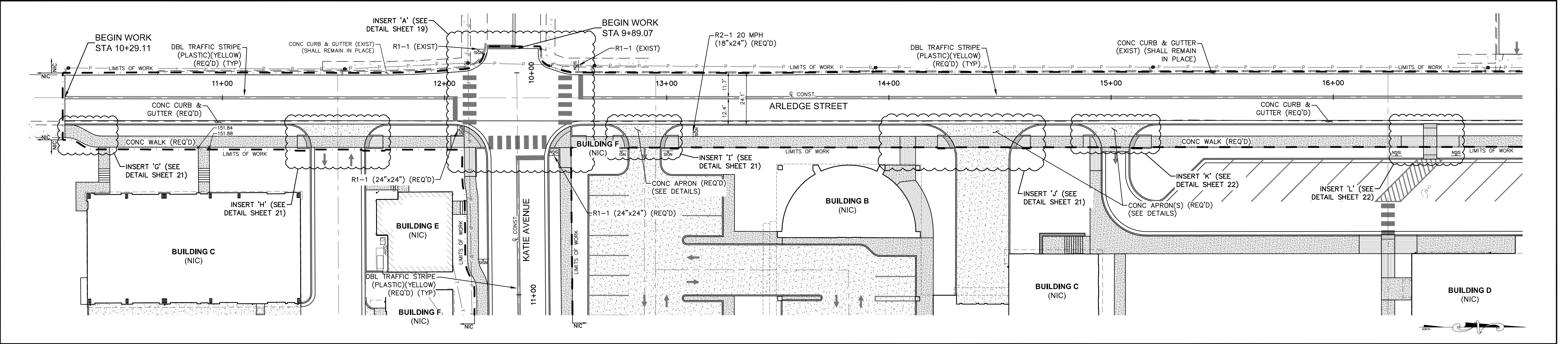
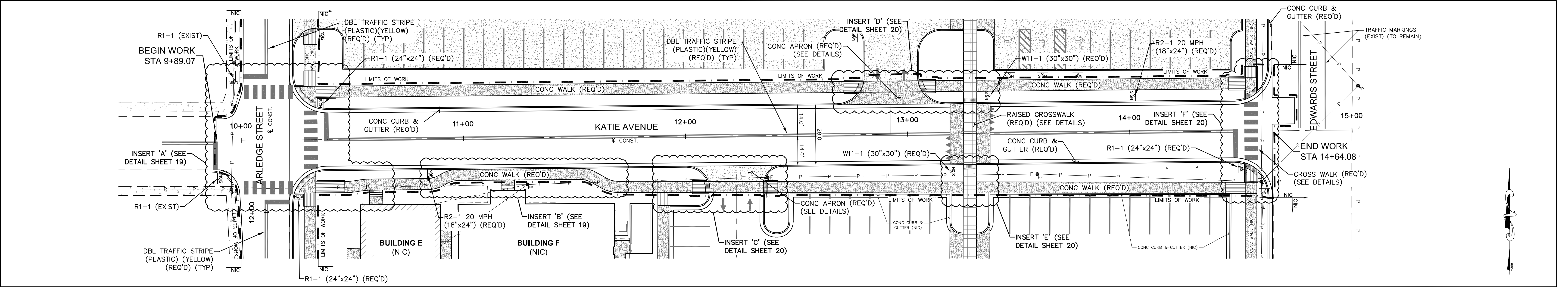


**NOTE:**  
WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE BOTTOM SIDE OF THE PIPE BELOW THE SPRING LINE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.

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| NO.                                                                                      | DATE | DESCRIPTION                 | BY          |
| TRACER WIRE DETAILS                                                                      |      |                             |             |
| INFRASTRUCTURE REHABILITATION                                                            |      |                             |             |
| CITY OF HATTIESBURG                                                                      |      |                             |             |
| FORREST COUNTY, MISSISSIPPI                                                              |      |                             |             |
|     |      |                             |             |
| 301 Second Ave.   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |      |                             |             |
| Drawn by: SLS                                                                            |      | Checked by: SEM             | Scale: NONE |
| Date: 05-04-2018                                                                         |      | Working No. <u>  TWD1  </u> |             |
| Drawing No.: 11258                                                                       |      | Sheet No. <u>  17  </u>     |             |



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| NO.                                                                                                                             | DATE             | DESCRIPTION     | BY |
| PAVING, MARKING & SIGNAGE PLAN                                                                                                  |                  |                 |    |
| INFRASTRUCTURE REHABILITATION<br>CITY OF HATTIESBURG<br>FORREST COUNTY, MISSISSIPPI                                             |                  |                 |    |
| <b>sdw</b><br>Engineering Progress<br>301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |                  |                 |    |
| Drawn by: RES\BT                                                                                                                | Checked by: SEM  | Scale: 1" = 20' |    |
| Date: 05-04-2018                                                                                                                | Working No. PMP1 |                 |    |
| Drawing No.: 11258                                                                                                              | Sheet No. 18     |                 |    |





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| NO.                                                                                                                                                                                                                           | DATE | DESCRIPTION | BY |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------|----|
| <b>PAVING, MARKING &amp; SIGNAGE PLAN</b>                                                                                                                                                                                     |      |             |    |
| <div style="text-align: center; padding-top: 80px;"> <h1 style="margin: 0;">INFRASTRUCTURE REHABILITATION</h1> <h2 style="margin: 0;">CITY OF HATTIESBURG</h2> <h3 style="margin: 0;">FORREST COUNTY, MISSISSIPPI</h3> </div> |      |             |    |

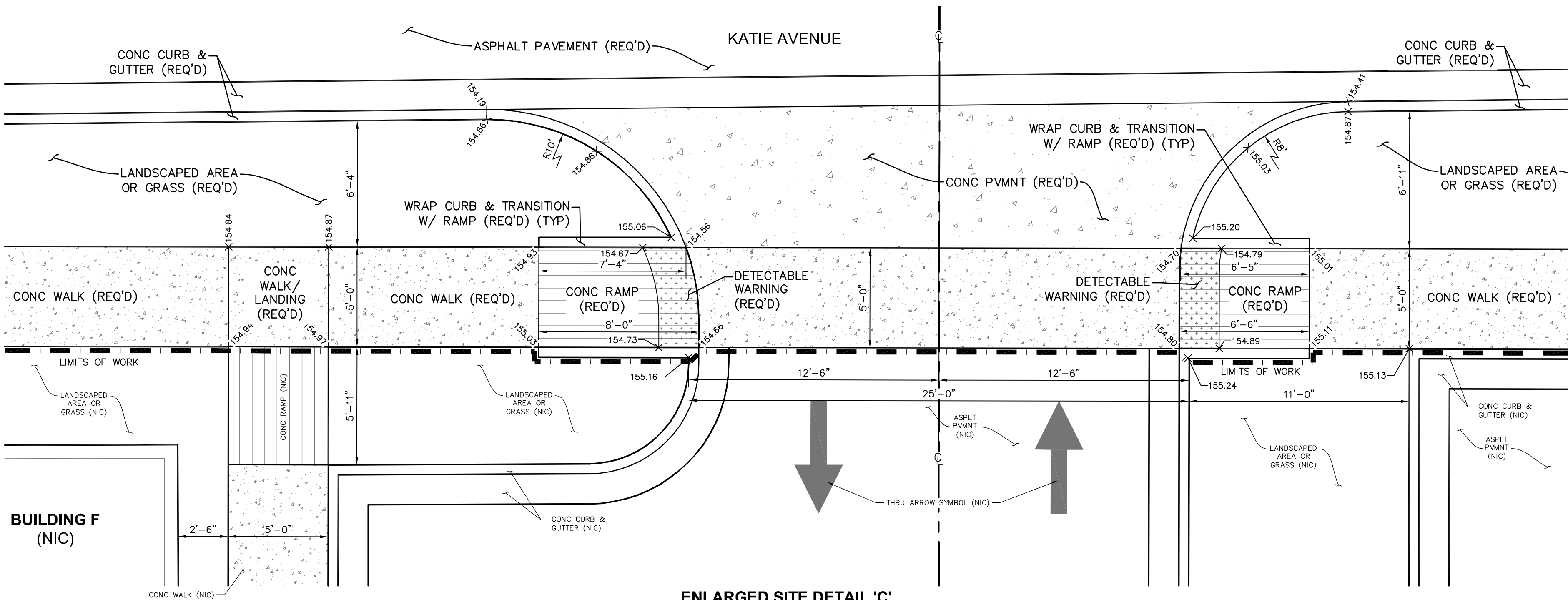
  

The logo features the lowercase letters "sdw" in a bold, stylized font. To its right, the words "Engineering Progress" are written in a smaller, sans-serif font.

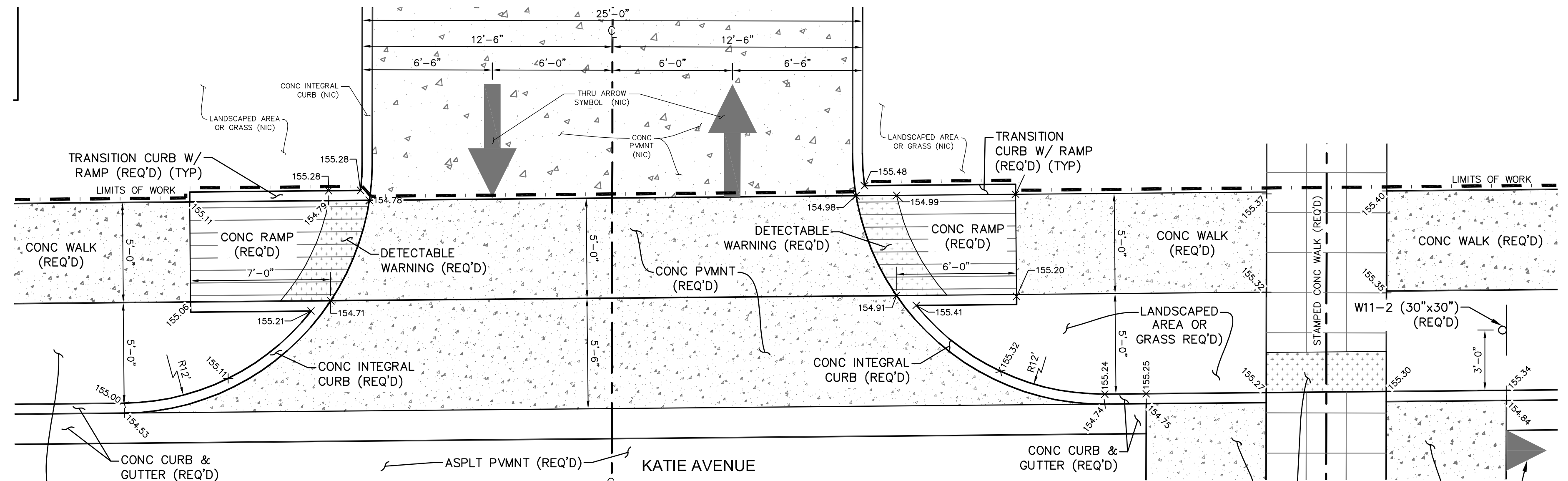
301 Second Ave., | Hattiesburg, MS 39401 | (p) 601.544.1821 | (f) 601.544.0501 | sd-w.com

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| Drawn by: RES\BT   | Checked by: SEM             | Scale: 1" = 4' |
| Date: 03/05/2018   | Working No. _____           | PMP2 _____     |
| Drawing No.: 11258 | Sheet No. <u>    19    </u> |                |

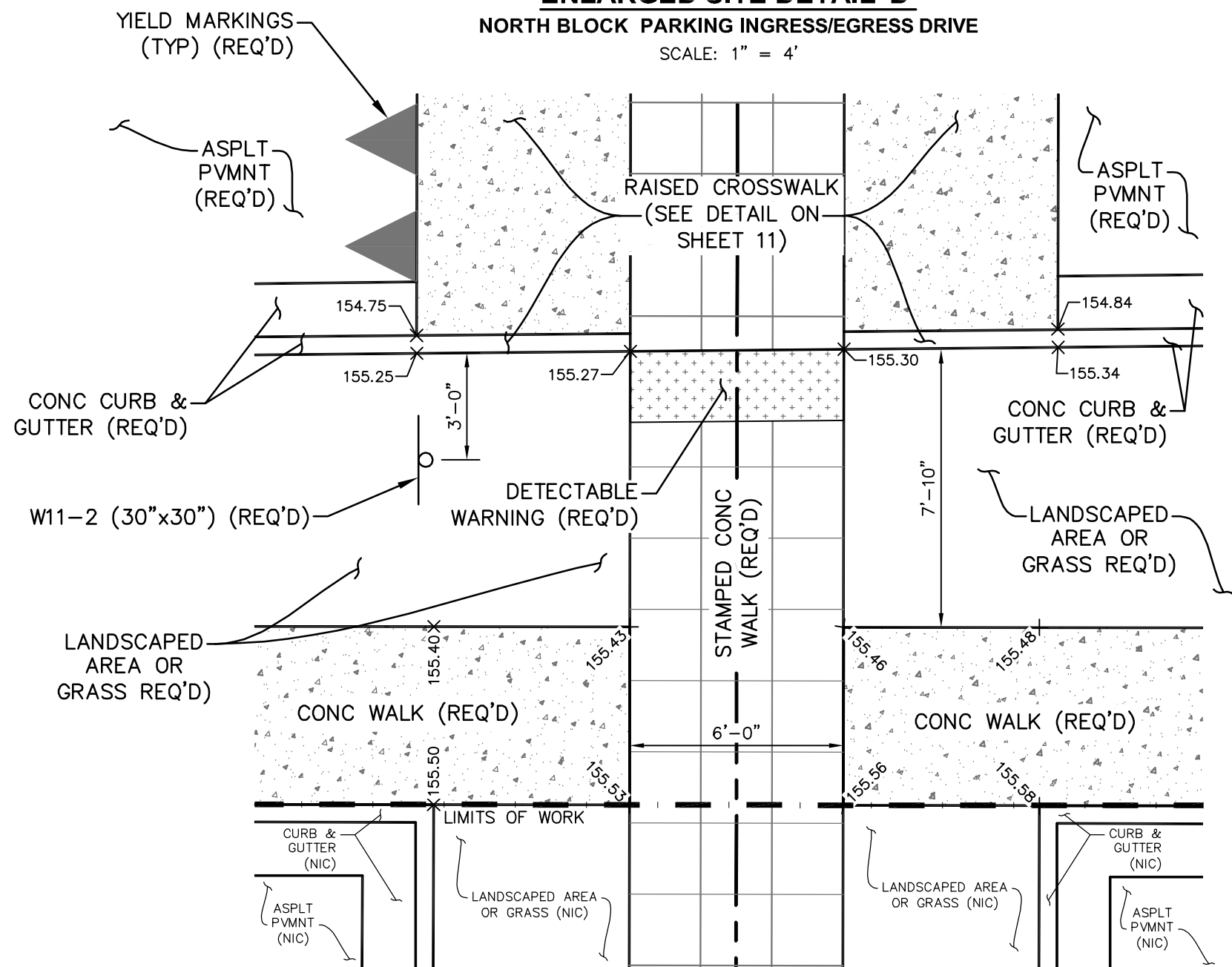




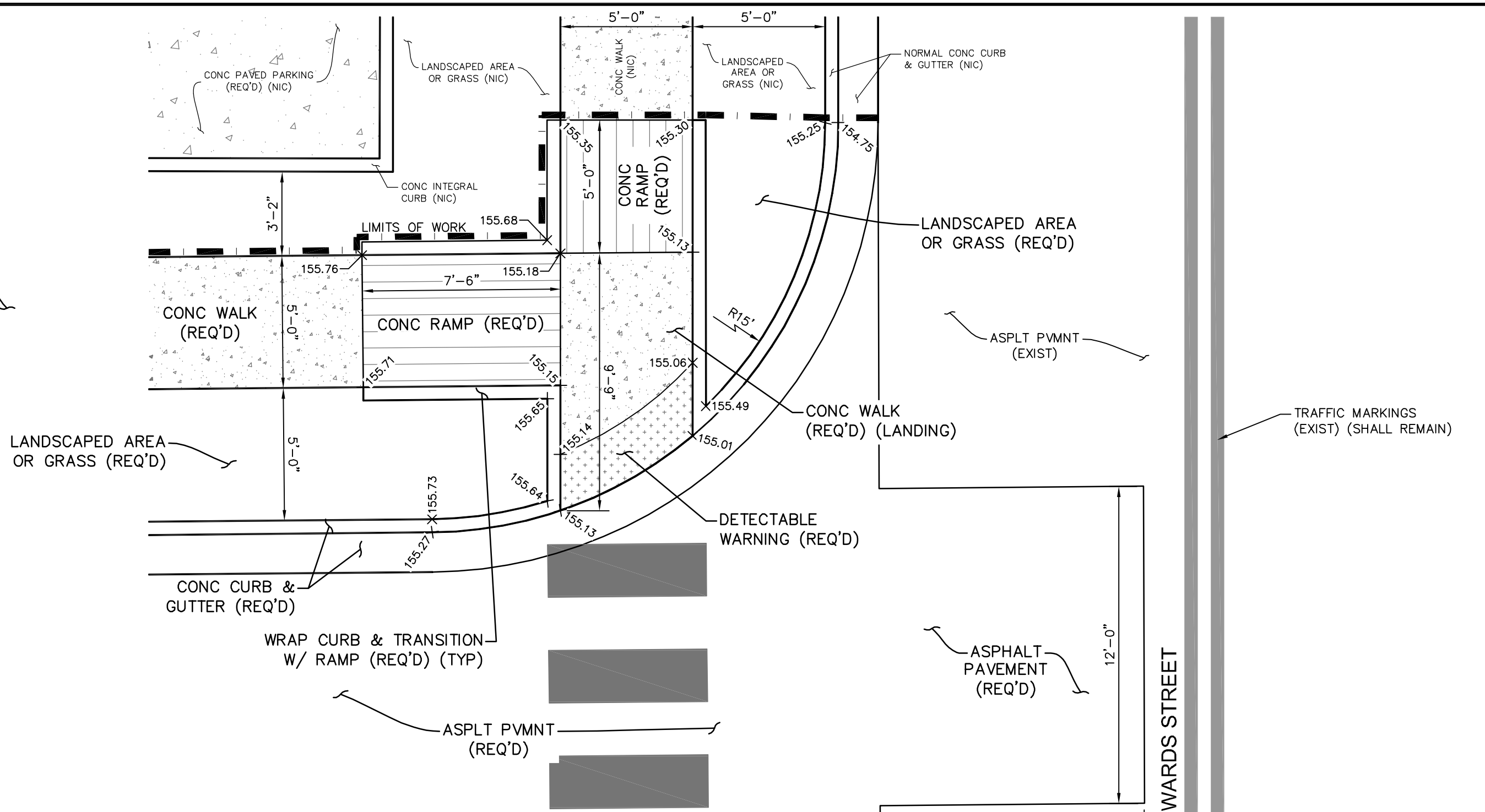
ENLARGED SITE DETAIL 'C'  
PUBLIC PARKING ACCESS DRIVE (NORTH ENTRANCE)  
SCALE: 1" = 4'



ENLARGED SITE DETAIL 'D'  
NORTH BLOCK PARKING INGRESS/EGRESS DRIVE  
SCALE: 1" = 4'



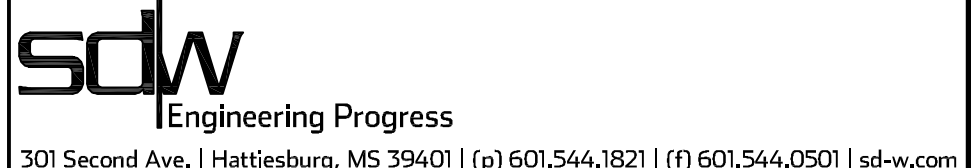
ENLARGED SITE DETAIL 'E'  
SOUTHSIDE OF KATIE AVENUE RAISED CROSSWALK / AT-GRADE SOUTH PARKING WALK  
SCALE: 1" = 4'



ENLARGED SITE DETAIL 'F'  
CURB RAMPS @ THE INTERSECTION OF KATIE & EDWARDS  
SCALE: 1" = 4'

NOTES:

1. ROAD NAMES SHOWN ON THIS PLAN ARE NOT PAVEMENT MARKINGS.
2. ALL PROPOSED SIGNS SHALL BE MOUNTED ON STEEL 3.0 LBS/FT U-SECTION POSTS PER STANDARD DETAILS, UNLESS OTHERWISE NOTED.
3. RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED AS NOTED.
4. WHERE MULTIPLE SIGNS ARE SHOWN ON THIS PLAN, SIGNS SHALL BE MOUNTED IN THE ORDER AS LISTED FROM TOP TO BOTTOM.

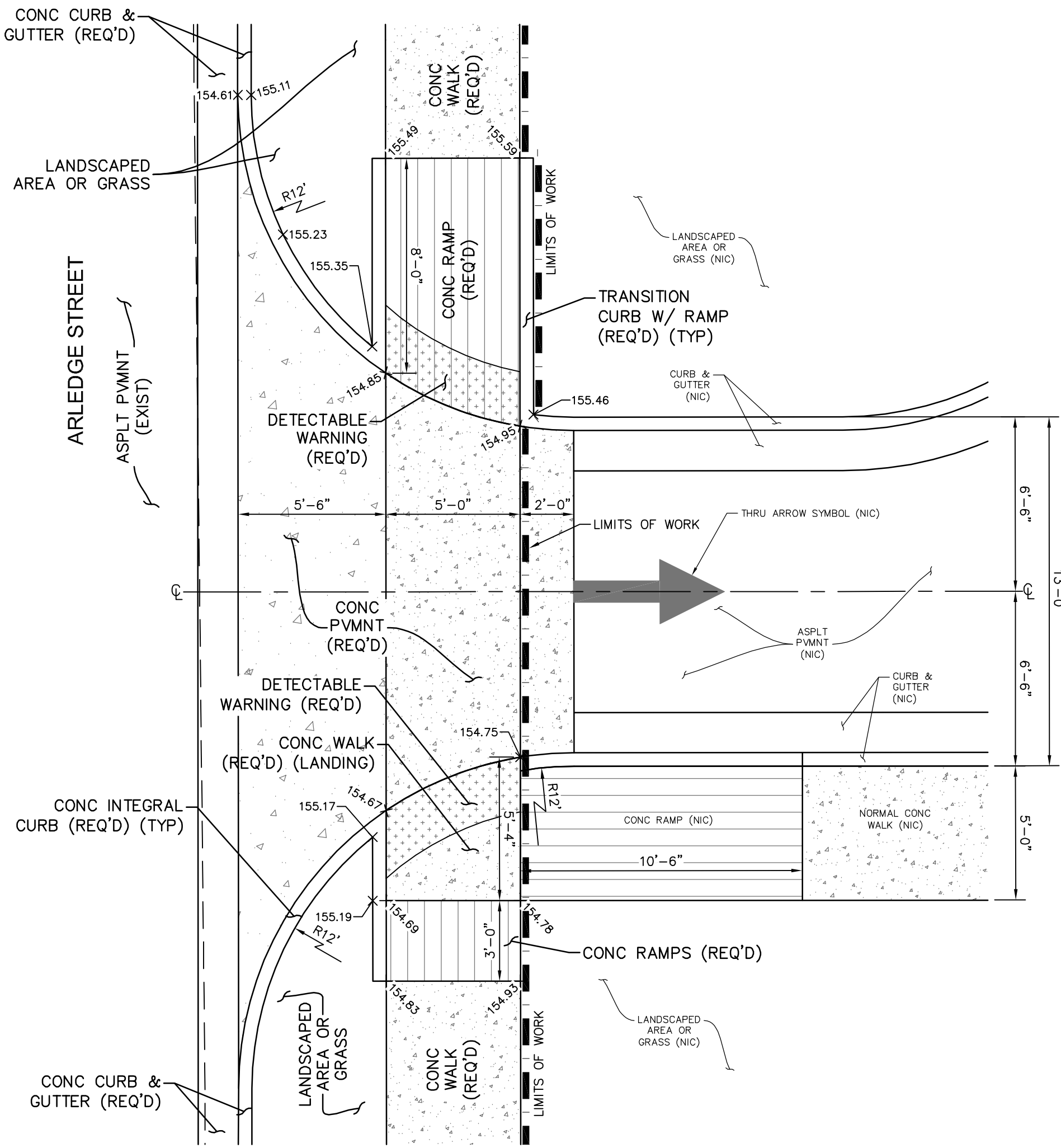
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| NO.                                                                                       | DATE             | DESCRIPTION    | BY |
| PAVING, MARKING & SIGNAGE PLAN                                                            |                  |                |    |
| INFRASTRUCTURE REHABILITATION                                                             |                  |                |    |
| CITY OF HATTIESBURG                                                                       |                  |                |    |
| FORREST COUNTY, MISSISSIPPI                                                               |                  |                |    |
|      |                  |                |    |
| 301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |                  |                |    |
| Drawn by: RES\BT                                                                          | Checked by: SEM  | Scale: 1" = 4' |    |
| Date: 05-04-2018                                                                          | Working No. PMP3 |                |    |
| Drawing No.: 11258                                                                        | Sheet No. 20     |                |    |



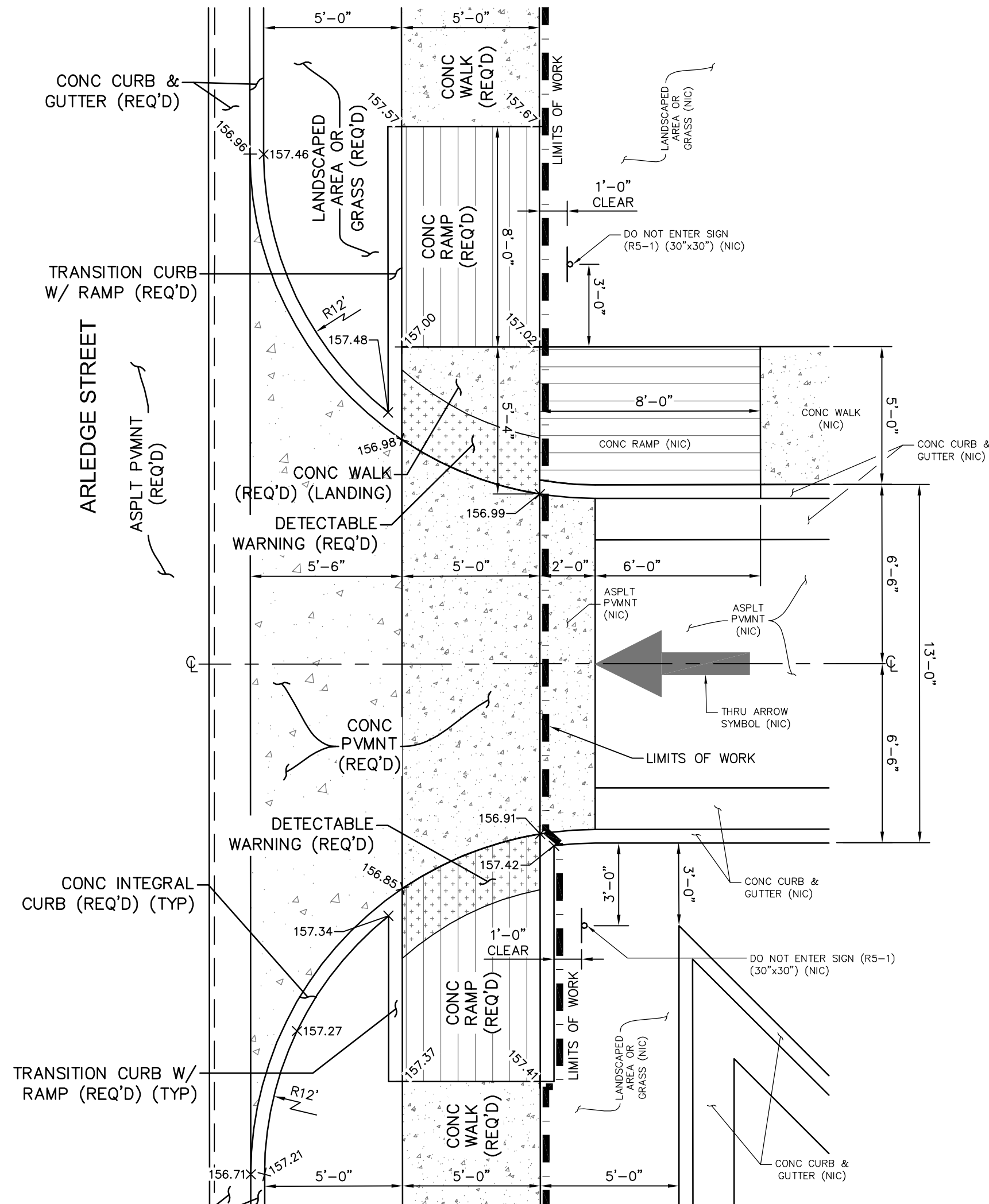




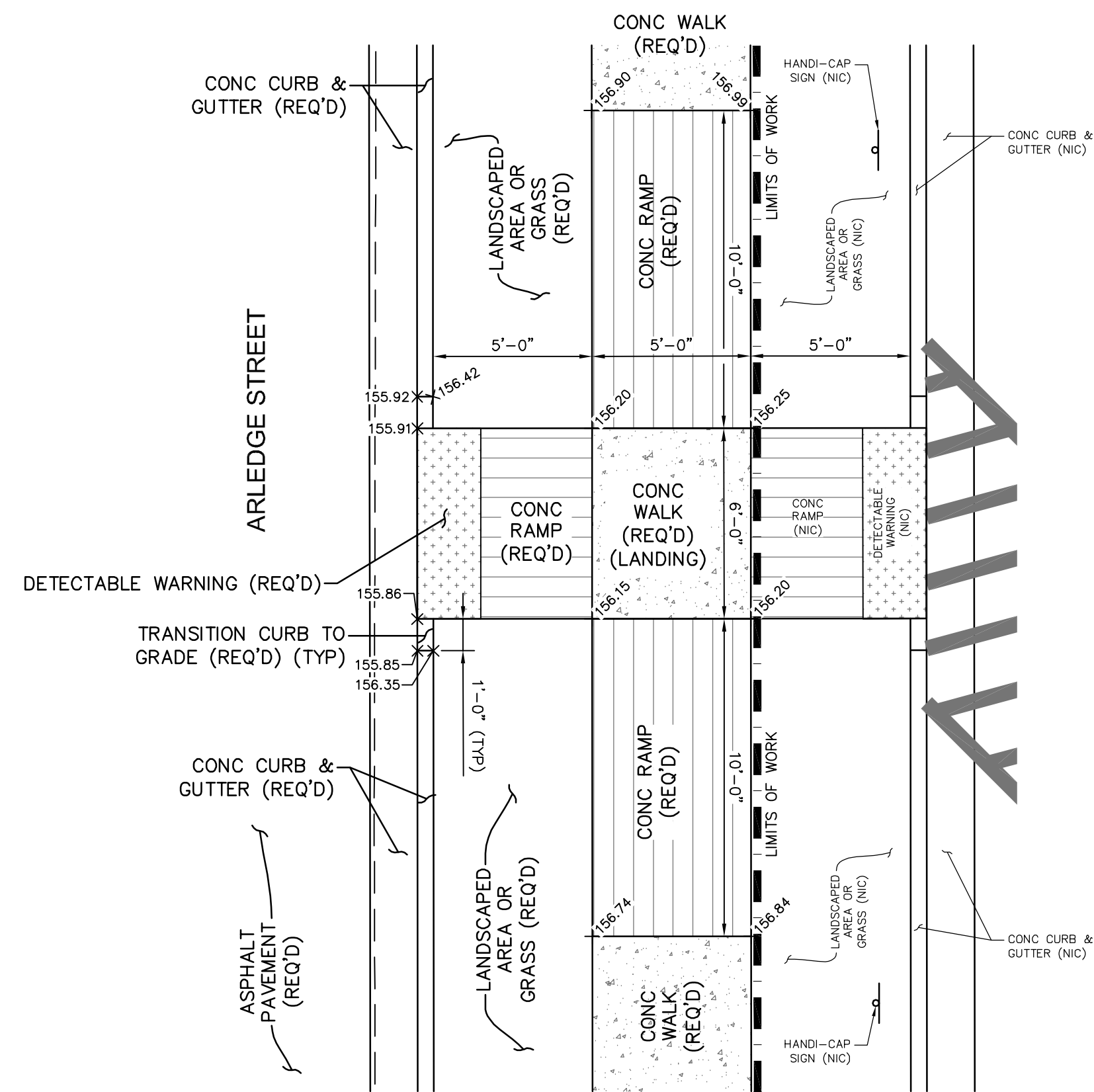
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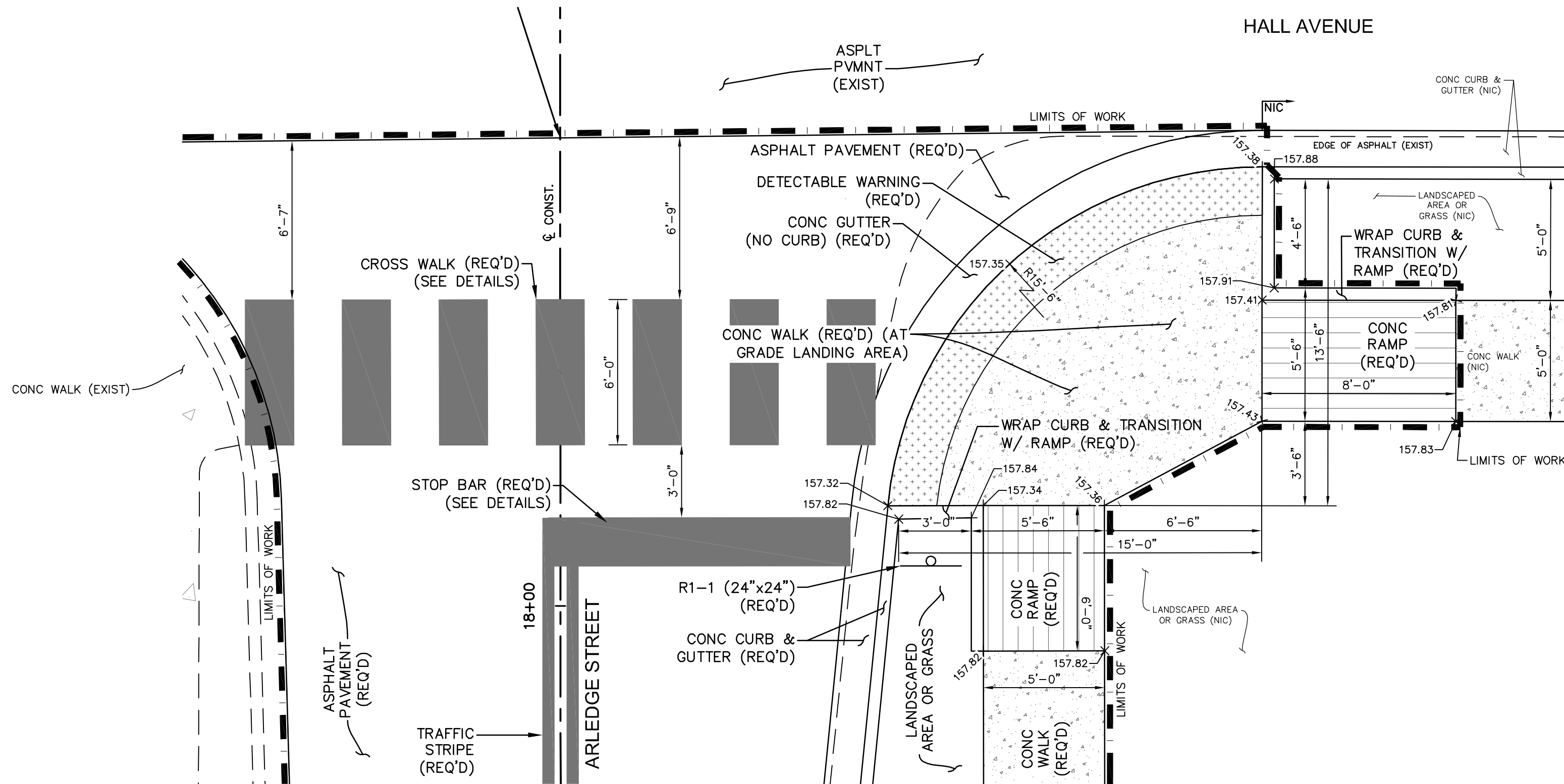
ENLARGED SITE DETAIL 'K'  
CONCRETE DRIVEWAY & CURB RAMPS AT BUILDING D INGRESS  
SCALE: 1" = 4'



ENLARGED SITE DETAIL 'M'  
CONCRETE DRIVEWAY & CURB RAMPS AT BUILDING D EGRESS  
SCALE: 1" = 4'



ENLARGED SITE DETAIL 'L'  
AT GRADE WALK BETWEEN BUILDING 'D' PARKING & ARLEDGE  
SCALE: 1" = 4'



ENLARGED SITE DETAIL 'N'  
INTERSECTION OF ARLEDGE & HALL  
SCALE: 1" = 4'

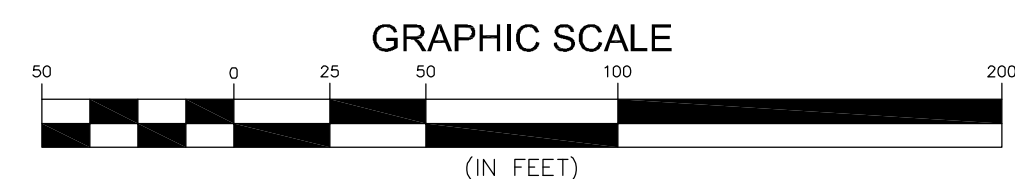
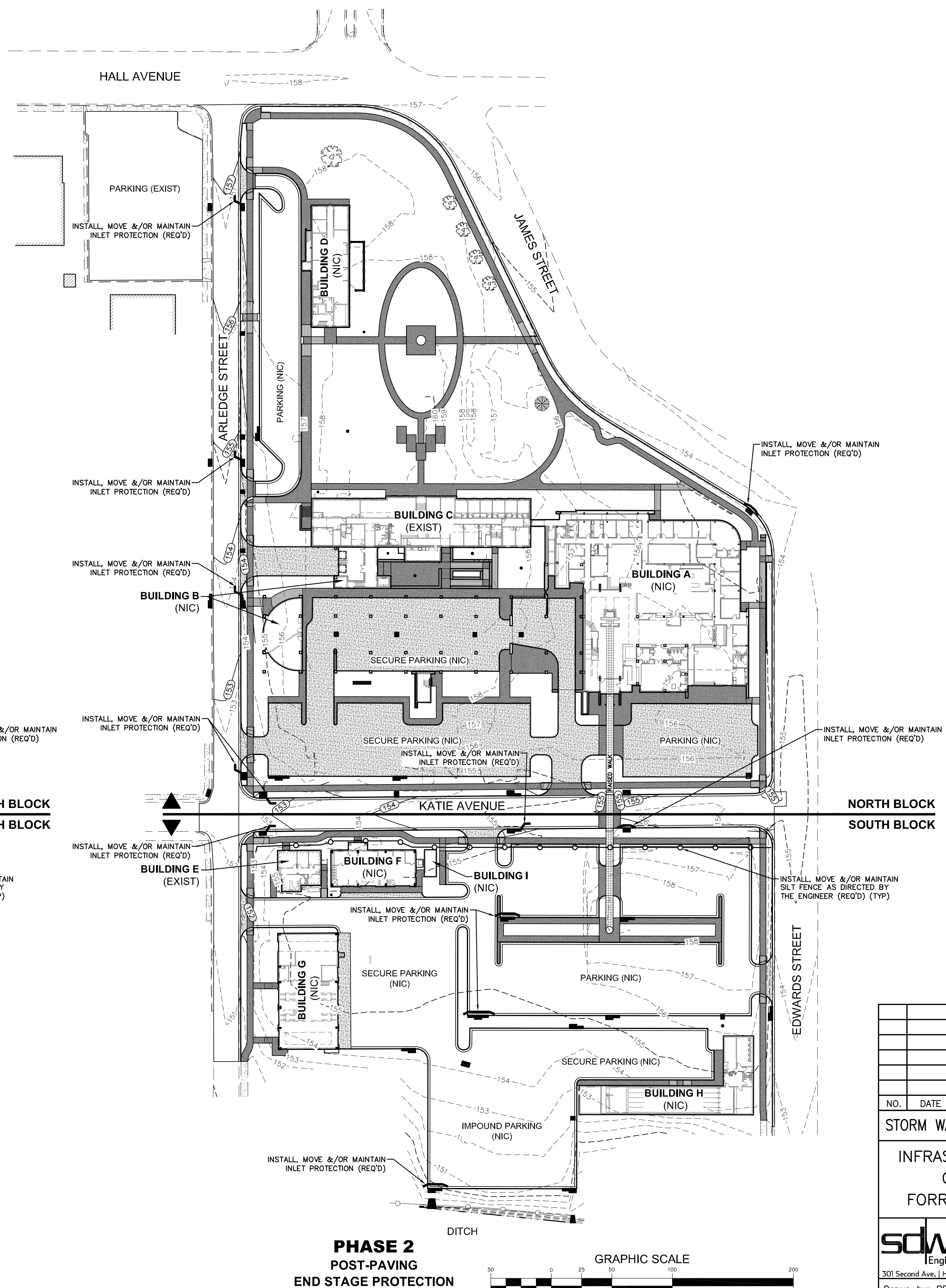
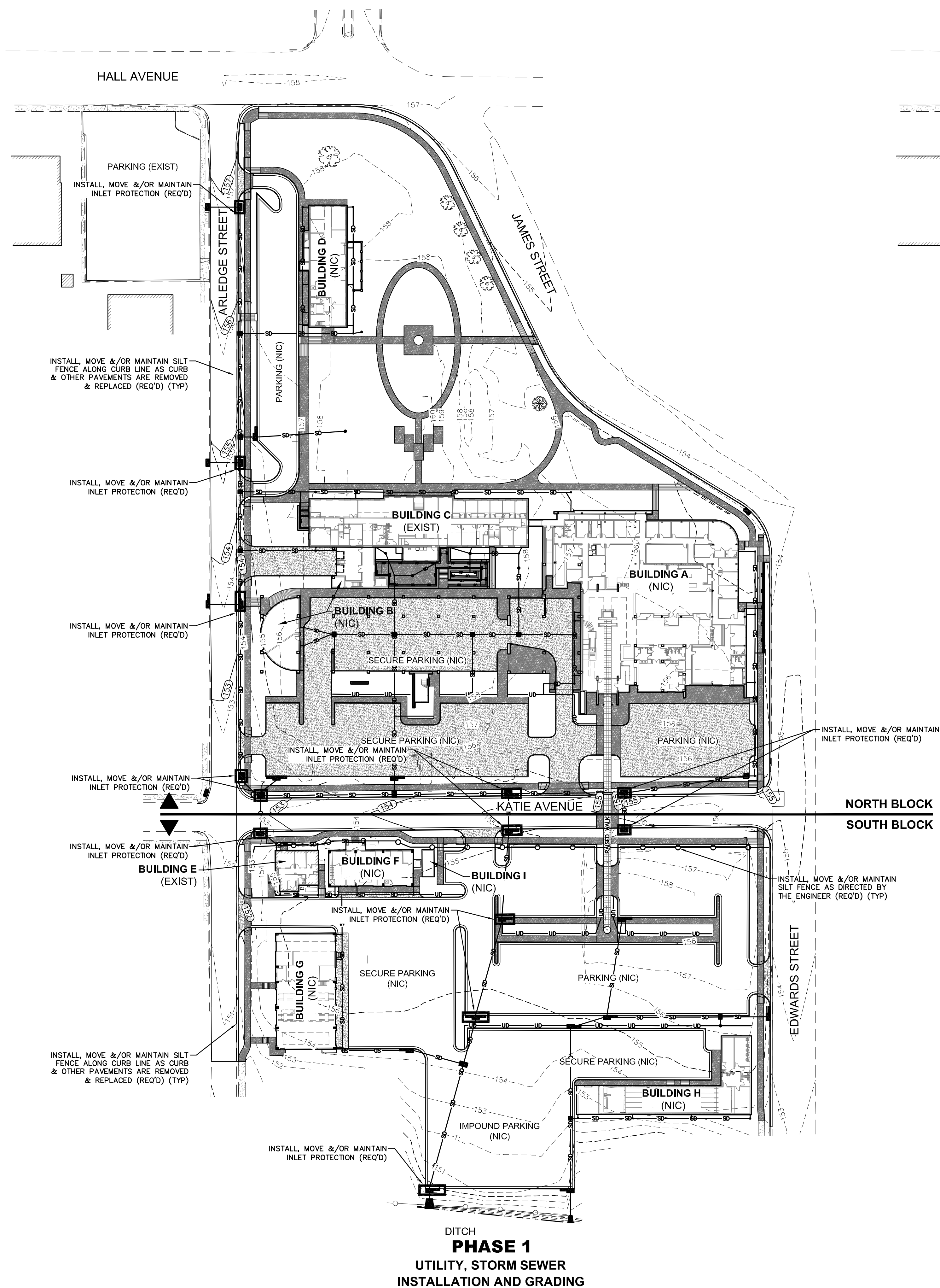
NOTES:

1. ROAD NAMES SHOWN ON THIS PLAN ARE NOT PAVEMENT MARKINGS.
2. ALL PROPOSED SIGNS SHALL BE MOUNTED ON STEEL 3.0 LBS/FT U-SECTION POSTS PER STANDARD DETAILS, UNLESS OTHERWISE NOTED.
3. RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED AS NOTED.
4. WHERE MULTIPLE SIGNS ARE SHOWN ON THIS PLAN, SIGNS SHALL BE MOUNTED IN THE ORDER AS LISTED FROM TOP TO BOTTOM.

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| NO.                                                                                                        | DATE       | DESCRIPTION | BY   |
| PAVING, MARKING & SIGNAGE PLAN                                                                             |            |             |      |
| INFRASTRUCTURE REHABILITATION                                                                              |            |             |      |
| CITY OF HATTIESBURG                                                                                        |            |             |      |
| FORREST COUNTY, MISSISSIPPI                                                                                |            |             |      |
|  Engineering Progress |            |             |      |
| 301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com                  |            |             |      |
| Drawn by:                                                                                                  | RES\BT     | Checked by: | SEM  |
| Date:                                                                                                      | 05-04-2018 | Working No. | PMP5 |
| Drawing No.:                                                                                               | 11258      | Sheet No.   | 22   |



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| NO.                                                                                                                                                                                                        | DATE | DESCRIPTION             | BY              |
| STORM WATER POLLUTION PREVENTION PLAN                                                                                                                                                                      |      |                         |                 |
| INFRASTRUCTURE REHABILITATION<br>CITY OF HATTIESBURG<br>FORREST COUNTY, MISSISSIPPI                                                                                                                        |      |                         |                 |
| <br>Engineering Progress<br>301 Second Ave.,   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com |      |                         |                 |
| Drawn by: RES\BT                                                                                                                                                                                           |      | Checked by: SEM         | Scale: AS NOTED |
| Date: 05-04-2018                                                                                                                                                                                           |      | Working No. <u>ECP1</u> |                 |
| Drawing No.: 11258                                                                                                                                                                                         |      | Sheet No. <u>23</u>     |                 |



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| VEGETATION SCHEDULE             |                                   |                                       |                        |                      |                            |                                                                                                       |
|---------------------------------|-----------------------------------|---------------------------------------|------------------------|----------------------|----------------------------|-------------------------------------------------------------------------------------------------------|
| EROSION CONTROL ITEMS           |                                   | SEASONAL APPLICATIONS - DATES & RATES |                        |                      |                            | REQUIREMENTS                                                                                          |
|                                 |                                   | SPRING & SUMMER                       |                        | FALL & WINTER        |                            |                                                                                                       |
|                                 | ITEMS                             | RATES                                 | DATES                  | RATES                | DATES                      |                                                                                                       |
|                                 | TOPSOIL FOR SLOPE TREATMENT (LVM) | 4" THICK                              | MARCH 1 TO SEPTEMBER 1 | 4" THICK             | SEPTEMBER 1 TO MARCH 1     | TOPSOIL REQUIRED ON SLOPES DETERMINED BY THE ENGINEER DURING CONSTRUCTION                             |
|                                 | STANDARD GROUND PREPARATION       | PER SQ. FT.                           | MARCH 1 TO SEPTEMBER 1 | PER SQ. FT.          | SEPTEMBER 1 TO MARCH 1     | GROUND PREPARATION REQUIRED ON AREAS TO RECEIVE SOLID SODDING OR SEEDING, AS APPLICABLE               |
|                                 | AGRICULTURAL LIMESTONE            | 3 TONS / ACRE                         | MARCH 1 TO SEPTEMBER 1 | 3 TONS / ACRE        | SEPTEMBER 1 TO MARCH 1     | LIMESTONE SHALL BE MECHANICALLY SPREAD UNIFORMLY AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING     |
|                                 | COMBINATION FERTILIZER (13–13–13) | 1000 LBS / ACRE                       | MARCH 1 TO SEPTEMBER 1 | 1000 LBS / ACRE      | SEPTEMBER 1 TO MARCH 1     | FERTILIZER SHALL BE MECHANICALLY SPREAD UNIFORMLY AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING    |
|                                 | SUPER PHOSPHATE                   | 0.5 TON / ACRE (EST)                  | MARCH 1 TO SEPTEMBER 1 |                      |                            | SUPER PHOSPHATE (FOR BID ITEM PURPOSES)                                                               |
|                                 | SEEDING (BERMUDA GRASS)           | 20 LBS / ACRE                         | MARCH 1 TO SEPTEMBER 1 | 20 LBS / ACRE        | SEPTEMBER 1 TO MARCH 1     | SEED REQUIRED ON DISTURBED AREAS. UNHULLED SEED MAY BE REQUIRED DURING THE DORMANT SEASON AS DIRECTED |
|                                 | SEEDING (TALL FESCUE)             |                                       |                        | 15 LBS / ACRE        | AUGUST 15 TO MARCH 15      | SEED REQUIRED IN DISTURBED AREAS                                                                      |
|                                 | SEEDING (CRIMSON CLOVER)          |                                       |                        | 20 LBS / ACRE        | AUGUST 15 TO MARCH 15      | SEED REQUIRED ON DISTURBED AREA                                                                       |
|                                 |                                   |                                       |                        |                      |                            |                                                                                                       |
|                                 |                                   |                                       |                        |                      |                            |                                                                                                       |
|                                 | VEGETATIVE MATERIAL FOR MULCH     | 2 TONS / ACRE (EST)                   | MARCH 1 TO SEPTEMBER 1 | 2 TONS / ACRE (EST)  | SEPTEMBER 1 TO MARCH 1     | THE ENGINEER WILL DESIGNATE THE RATES OF APPLICABLE (SEE SUBSECTION 215–03.3)                         |
|                                 | SOLID SODDING                     | PER SQ. YD.                           | MARCH 1 TO SEPTEMBER 1 | PER SQ. YD.          | SEPTEMBER 1 TO MARCH 1     | SOLID SOD REQUIRED ON AREAS SPECIFIED IN THE CONTRACT OR BY THE ENGINEER                              |
|                                 | WATERING                          | 20 GAL / S.Y. (EST)                   | MARCH 1 TO SEPTEMBER 1 | 20 GAL. / S.Y. (EST) | SEPTEMBER 1 TO MARCH 1     | TO BE USED AS DIRECTED IN THE PLANTING AND ESTABLISHING OF SOLID SOD                                  |
|                                 | INSECT PEST CONTROL               | PER ACRE                              |                        | PER ACRE             |                            | SEE SECTION 220                                                                                       |
|                                 |                                   |                                       |                        |                      |                            |                                                                                                       |
| TEMPORARY EROSION CONTROL ITEMS |                                   |                                       |                        |                      |                            |                                                                                                       |
|                                 |                                   |                                       |                        |                      |                            |                                                                                                       |
|                                 | LIGHT GROUND PREPARATION          | PER SQ. YD.                           |                        | PER SQ. YD.          |                            | APPROXIMATELY HALF SQ.YD. STANDARD GROUND PREPARATION                                                 |
|                                 | COMBINATION FERTILIZER (13–13–13) | 0.25 TONS/ ACRE                       |                        | 0.25 TONS/ ACRE      |                            | QUANTITY BASED ON LIGHT GROUND PREPARATION                                                            |
|                                 | SEEDING (BROWN TOP MILLET)        | 20 LBS / ACRE                         | APRIL 1 TO AUGUST 31   |                      |                            | QUANTITY BASED ON LIGHT GROUND PREPARATION                                                            |
|                                 | SEEDING (RYE GRASS)               |                                       |                        | 25 LBS / ACRE        | SEPTEMBER 1 TO MARCH 31    | QUANTITY BASED ON LIGHT GROUND PREPARATION                                                            |
|                                 | SEEDING (OATS)                    |                                       |                        | 90 LBS / ACRE        | SEPTEMBER 1 TO DECEMBER 15 | QUANTITY BASED ON LIGHT GROUND PREPARATION                                                            |
|                                 | VEGETATIVE MATERIAL FOR MULCH     | 1 TON / ACRE (EST)                    |                        | 1 TON / ACRE (EST)   |                            | QUANTITY BASED ON LIGHT GROUND PREPARATION                                                            |
|                                 |                                   |                                       |                        |                      |                            |                                                                                                       |

- ① ALL AREAS THAT HAVE BEEN VEGETATED, UNDER THIS CONTRACT, FOR AT LEAST (60) SIXTY DAYS, SHALL RECEIVE ADDITIONAL APPLICATION(S) OF FERTILIZER(S) OF THE TYPE(S) AND RATE(S) OF APPLICATIONS AS DETERMINED BY SOIL TEST OR AS DIRECTED DURING THE GROWING SEASONS THE CONTRACT IS IN FORCE. GROUND PREPARATION WILL NOT BE REQUIRED FOR THE ADDITIONAL APPLICATIONS.
- ② PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 100% OF THE ACREAGE WILL BE SEEDDED.
- ③ PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 50% OF THE ACREAGE WILL BE SEEDDED.
- ④ QUANTITY ESTIMATED ON THE BASIS THAT 50% OF THE ACREAGE VEGETATED MAY REQUIRED TREATMENT.
- ⑤ THIS ITEM MAY BE OMITTED ON AREAS SELECTED BY THE ENGINEER.
- ⑥ BAHIAGRASS WILL NOT BE PERMITTED AS A MULCH MATERIAL.
- ⑦ PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 75% OF THE ACREAGE SEEDDED MAY REQUIRE TOPSOIL

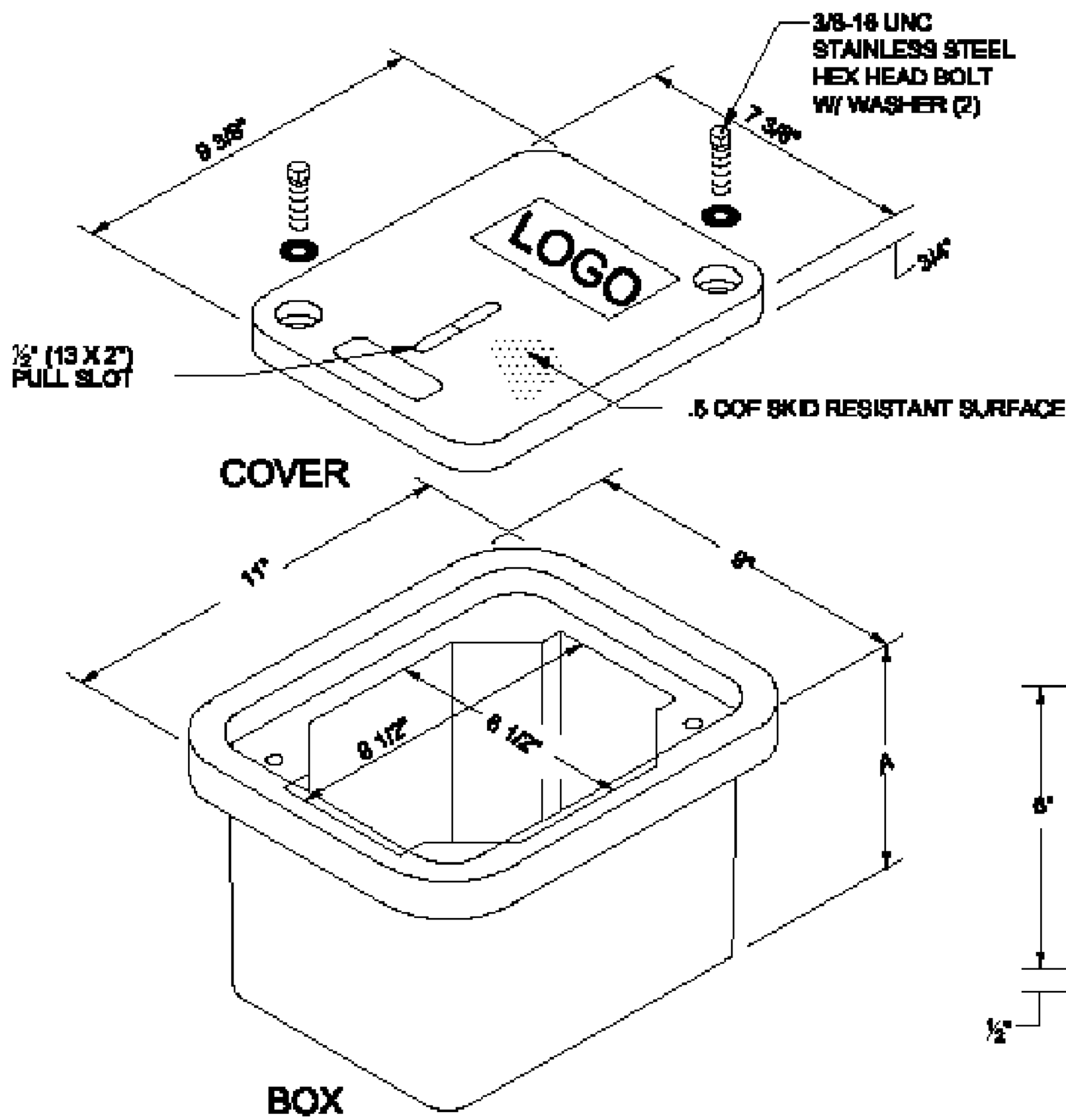
TEMPORARY EROSION CONTROL ITEMS REQUIRED FOR DETOURS

| ITEM                              | RATE         | SEASONAL LIMITATIONS  |
|-----------------------------------|--------------|-----------------------|
| STANDARD GROUND PREPARATION       | ---          | ---                   |
| COMBINATION FERTILIZER (13–13–13) | 500 LBS/ACRE | ---                   |
| SEEDING (BERMUDA GRASS)           | 10 LBS/ACRE  | ---                   |
| SEEDING (TALL FESCUE)             | 20 LBS/ACRE  | AUGUST 15 TO MARCH 15 |
| VEGETATIVE MATERIAL FOR MULCH     | 2 LBS/ACRE   | ---                   |

NOTE: ALL VEGETATION ON THIS PROJECT SHALL BE PAID FOR UNDER AS OUTLINED IN THE BID PROPOSAL. ITEMS SHALL BE APPLIED USING THE RATES OF APPLICATION AS SHOWN ON THIS SHEET AND WILL NOT BE MEASURED FOR SEPARATE PAYMENT.

|                                                                                                                                                             |            |             |                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--------------------|
|                                                                                                                                                             |            |             |                    |
|                                                                                                                                                             |            |             |                    |
|                                                                                                                                                             |            |             |                    |
|                                                                                                                                                             |            |             |                    |
|                                                                                                                                                             |            |             |                    |
|                                                                                                                                                             |            |             |                    |
| NO.                                                                                                                                                         | DATE       | DESCRIPTION | BY                 |
| VEGETATION SCHEDULE                                                                                                                                         |            |             |                    |
| INFRASTRUCTURE REHABILITATION<br>CITY OF HATTIESBURG<br>FORREST COUNTY, MISSISSIPPI                                                                         |            |             |                    |
| <div><div>sdw</div><div>Engineering Progress</div><div>301 Second Ave.   Hattiesburg, MS 39401   (p) 601.544.1821   (f) 601.544.0501   sd-w.com</div></div> |            |             |                    |
| Drawn by:                                                                                                                                                   | SLS        | Checked by: | SEM    Scale: NONE |
| Date:                                                                                                                                                       | 05–04–2018 | Working No. | VS1                |
| Drawing No.:                                                                                                                                                | 11258      | Sheet No.   | 24                 |



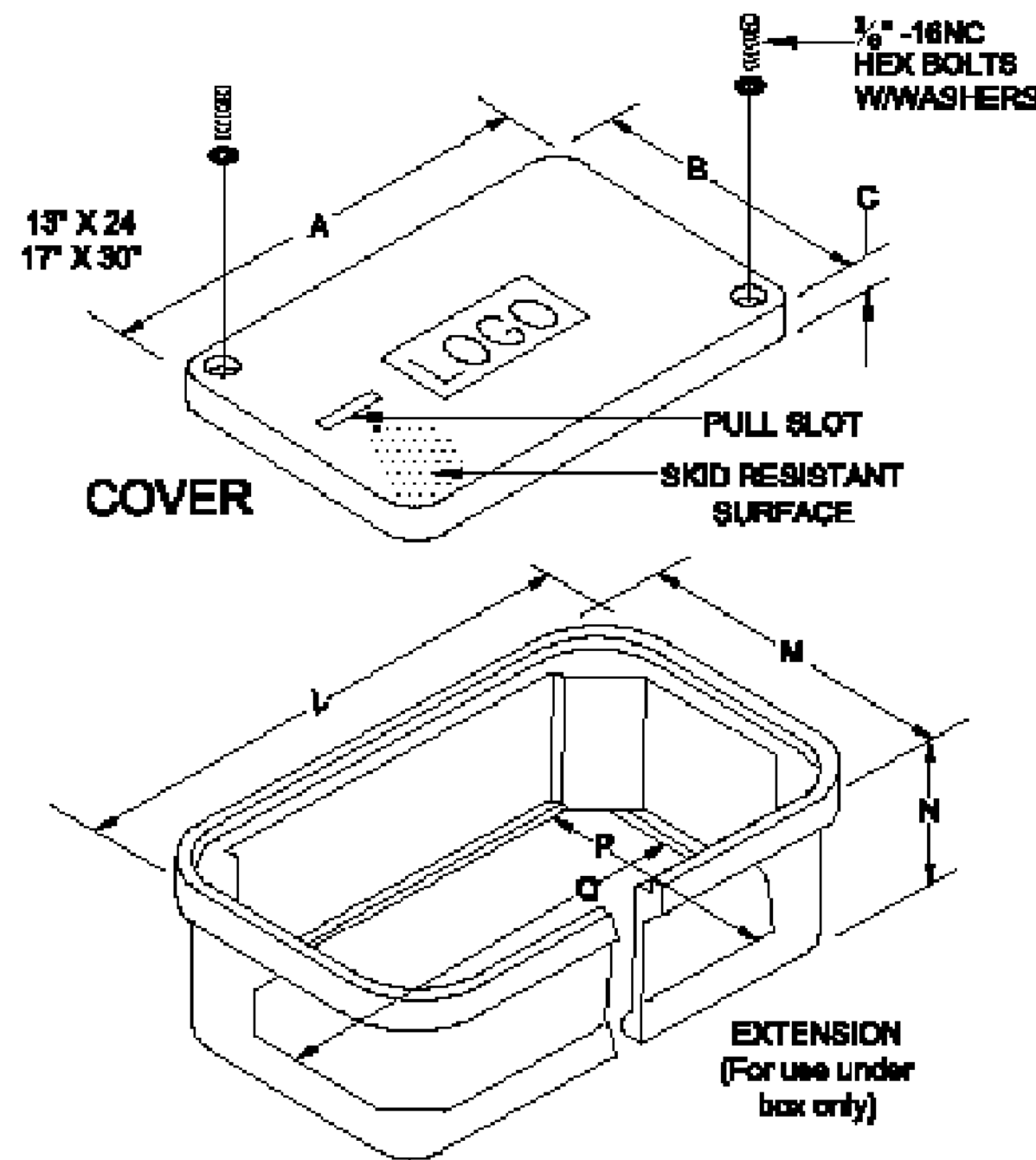


TYPE 1 PULLBOX  
NOT TO SCALE

Covers (blank unless logo is specified)

| DESCRIPTION        | WEIGHT # | DESIGN/TEST LOAD # | ANSI TIER |
|--------------------|----------|--------------------|-----------|
| W/2 Bolts          | 4        | 8,000 / 12,000     | 8         |
| Gasketed w/4 Bolts | 4        | 8,000 / 12,000     | 8         |

Gasketed covers must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

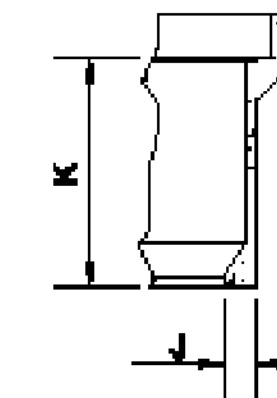
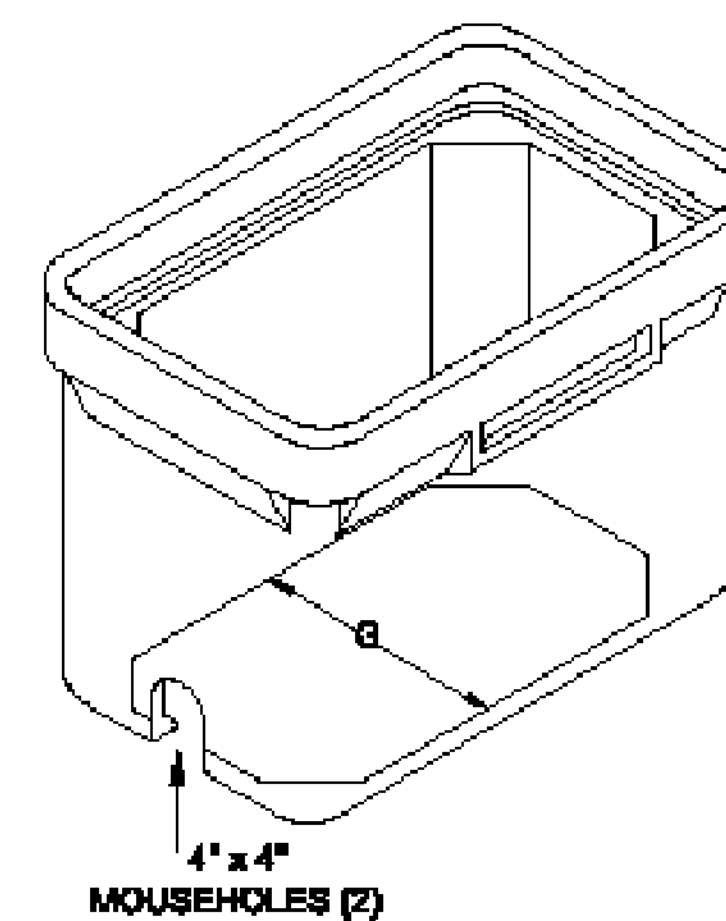


TYPE 2 or 3 PULLBOX  
NOT TO SCALE

Boxes (Stackable with self-aligning, replaceable EZ-Nut)

| DESCRIPTION           | WEIGHT # | DIMENSION A | DESIGN/TEST LOAD # | ANSI TIER |
|-----------------------|----------|-------------|--------------------|-----------|
| Open Bottom           | 12       | 8 3/4"      | 15,000 / 22,500    | 15        |
| Open Bottom w/Gasket  | 12       | 8 3/4"      | 15,000 / 22,500    | 15        |
| Solid Bottom          | 14.5     | 7 1/4"      | 15,000 / 22,500    | 15        |
| Solid Bottom w/Gasket | 14.5     | 7 1/4"      | 15,000 / 22,500    | 15        |

Dimensions & weights in parentheses are metric equivalents.



- OPTIONS
1. Stainless steel standard penta-head bolt.
  2. Specific cover logo.
  3. Green or other colors
  4. Special holes/knockouts

Covers (blank unless logo is specified)

| DESCRIPTION              | DIMENSION (IN.) |        |   | WT. LBS. |
|--------------------------|-----------------|--------|---|----------|
|                          | A               | B      | C |          |
| Locking Cover            | 23 3/4          | 13 3/4 | 2 | 32       |
| Non-Locking Cover        | 30 1/2          | 17 1/2 | 2 | 47       |
| Steel Locking Cover      | 23 3/4          | 13 3/4 | 2 | 85       |
| Heavy Duty Locking Cover | 23 3/4          | 13 3/4 | 2 | 50       |

| DESCRIPTION       | DIMENSION (IN.) |        |        |        |        |       |    | WT. LBS. |
|-------------------|-----------------|--------|--------|--------|--------|-------|----|----------|
|                   | D               | E      | F      | G      | H      | J     | K  |          |
| Standard Box      | 25              | 15 1/2 | 12     | 8 3/4  | 18 3/4 | 1 1/4 | 10 | 58       |
|                   | 25              | 15 1/2 | 18     | 8 3/4  | 18 3/4 | 1 1/4 | 18 | 82       |
|                   | 32 1/4          | 18 1/4 | 12     | 13 3/4 | 26 3/4 | 1 1/4 | 10 | 82       |
|                   | 32 1/4          | 18 1/4 | 18     | 13 3/4 | 26 3/4 | 1 1/4 | 18 | 84       |
| Box w/ Mouseholes | 32 1/4          | 18 1/4 | 22     | 13 3/4 | 26 3/4 | 1 1/4 | 20 | 108      |
|                   | 25              | 15 1/2 | 12     | 8 3/4  | 18 3/4 | 1 1/4 | 10 | 48       |
|                   | 25              | 15 1/2 | 18     | 8 3/4  | 18 3/4 | 1 1/4 | 16 | 61       |
|                   | 22 1/4          | 18 1/4 | 12     | 13 3/4 | 26 3/4 | 1 1/4 | 10 | 80       |
| Box w/ Solid Base | 32 1/4          | 18 1/4 | 18     | 13 3/4 | 26 3/4 | 1 1/4 | 18 | 80       |
|                   | 32 1/4          | 18 1/4 | 22     | 13 3/4 | 26 3/4 | 1 1/4 | 20 | 104      |
|                   | 25              | 15 1/2 | 18 1/2 | N/A    | N/A    | N/A   | 18 | 73       |
|                   | 32 1/4          | 18 1/4 | 18 1/2 | N/A    | N/A    | N/A   | 18 | 108      |

\*Not to be used for extensions.

Extensions (For use under box only)

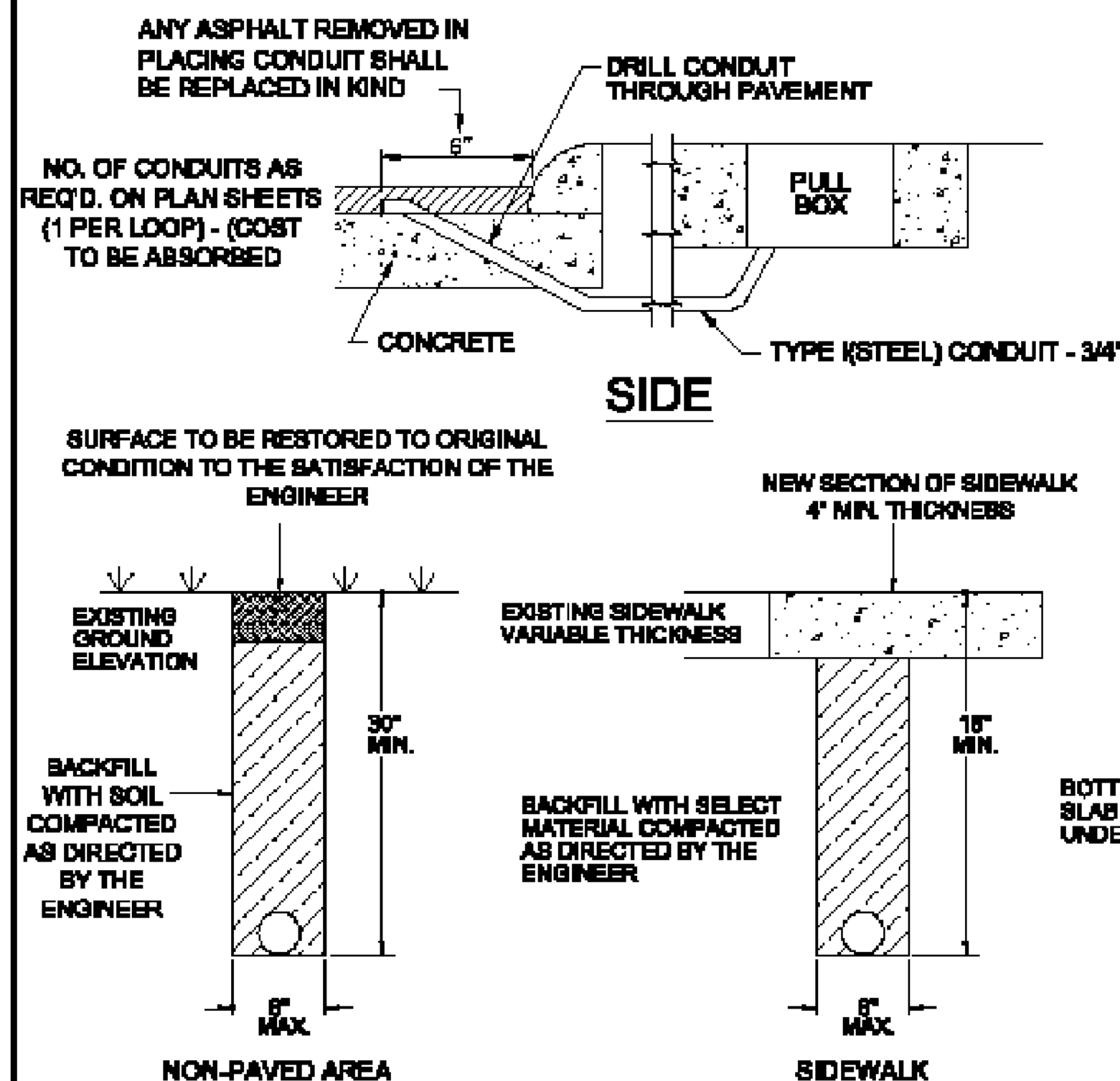
| DESCRIPTION             | DIMENSION (IN.) |        |       |        |        |   |     | WT. LBS. |
|-------------------------|-----------------|--------|-------|--------|--------|---|-----|----------|
|                         | L               | M      | N     | P      | Q      | R | S   |          |
| Extension (One Per Box) | 23 3/4          | 14 3/4 | 8 3/4 | 10 3/4 | 18 3/4 | 8 | 1   | 25       |
| Extension w/ Solid Base | 30 3/8          | 17 3/8 | 8 3/4 | 13 3/8 | 26 3/8 | 8 | 1   | 47       |
| Extension               | 23 3/4          | 14 3/4 | 8 3/4 | N/A    | N/A    | 8 | N/A | 35       |
| Extension w/ Solid Base | 30 3/8          | 17 3/8 | 8 3/4 | N/A    | N/A    | 8 | N/A | 65       |

Underground enclosures shall be Composite. Enclosures and covers shall be concrete gray color and rated for no less than 8,000 lbs. over a 10" x 10" area and be designed and tested to temperatures of -80 F. Material compressive strength shall be no less than 11,000 psi. Covers shall have a minimum coefficient of friction of .5. Boxes shall be stackable for extra depth.

NOMINAL PULLBOX SIZES

| TYPE 1            | TYPE 2          | TYPE 3          |
|-------------------|-----------------|-----------------|
| 8" x 11" x 6 3/4" | 15" x 25" x 18" | 19" x 32" x 24" |

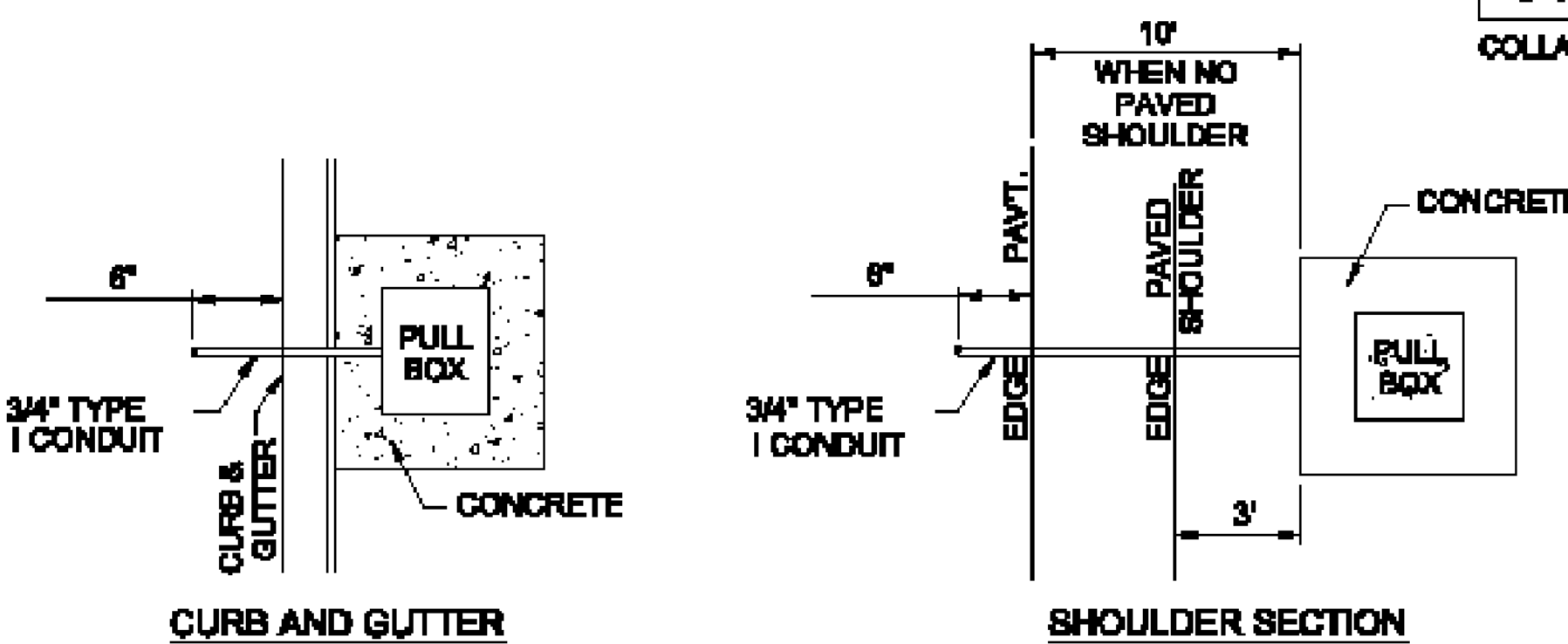
COLLARS AND GRAVEL UNDER PULLBOX REQUIRED FOR ALL TYPES OF PULLBOXES



CONDUIT TRENCHING DETAIL  
NOT TO SCALE

CONDUIT NOTES:

1. CONDUIT TO BE SEALED WITH DUCT SEALER ONCE CABLE IS INSTALLED.
2. SAWCUT SIDEWALK AT EXISTING JOINTS AND REPLACE ENTIRE SECTION TO MATCH EXISTING MATERIAL. WHEN NEW SIDEWALK IS BEING CONSTRUCTED, CONDUIT, PULLBOX, AND POLE ARE TO BE INSTALLED BEFORE SIDEWALK IS POURED.
3. TYPE I CONDUIT IS RIGID PIPE; TYPE IV CONDUIT IS PVC.
4. ELECTRICAL SUBCONTRACTOR SHALL COORDINATE CONDUIT INSTALLATION WORK UNDER ROADWAY WITH ROADWAY CONSTRUCTION PHASING IN ORDER TO MINIMIZE JACKING.
5. MATERIAL REMOVED THAT IS NOT SUITABLE FOR BACKFILL OR IS EXCESS SHALL BE DISPOSED OF BY THE CONTRACTOR. (COST ABSORBED)



PULL BOX LOCATION DETAIL  
NOT TO SCALE

|                                                                        |  |  |  |              |  |                |  |
|------------------------------------------------------------------------|--|--|--|--------------|--|----------------|--|
| MISSISSIPPI DEPARTMENT OF TRANSPORTATION                               |  |  |  | PROJECT NO.: |  | WORKING NUMBER |  |
| PULL BOX AND CONDUIT TRENCHING DETAILS FOR TRAFFIC SIGNAL INSTALLATION |  |  |  | COUNTY:      |  | TSD-3          |  |
| FILENAME:                                                              |  |  |  | DESIGN TEAM  |  | SHEET NUMBER   |  |
| DATE                                                                   |  |  |  | CHECKED      |  | DATE           |  |
|                                                                        |  |  |  |              |  | 25             |  |



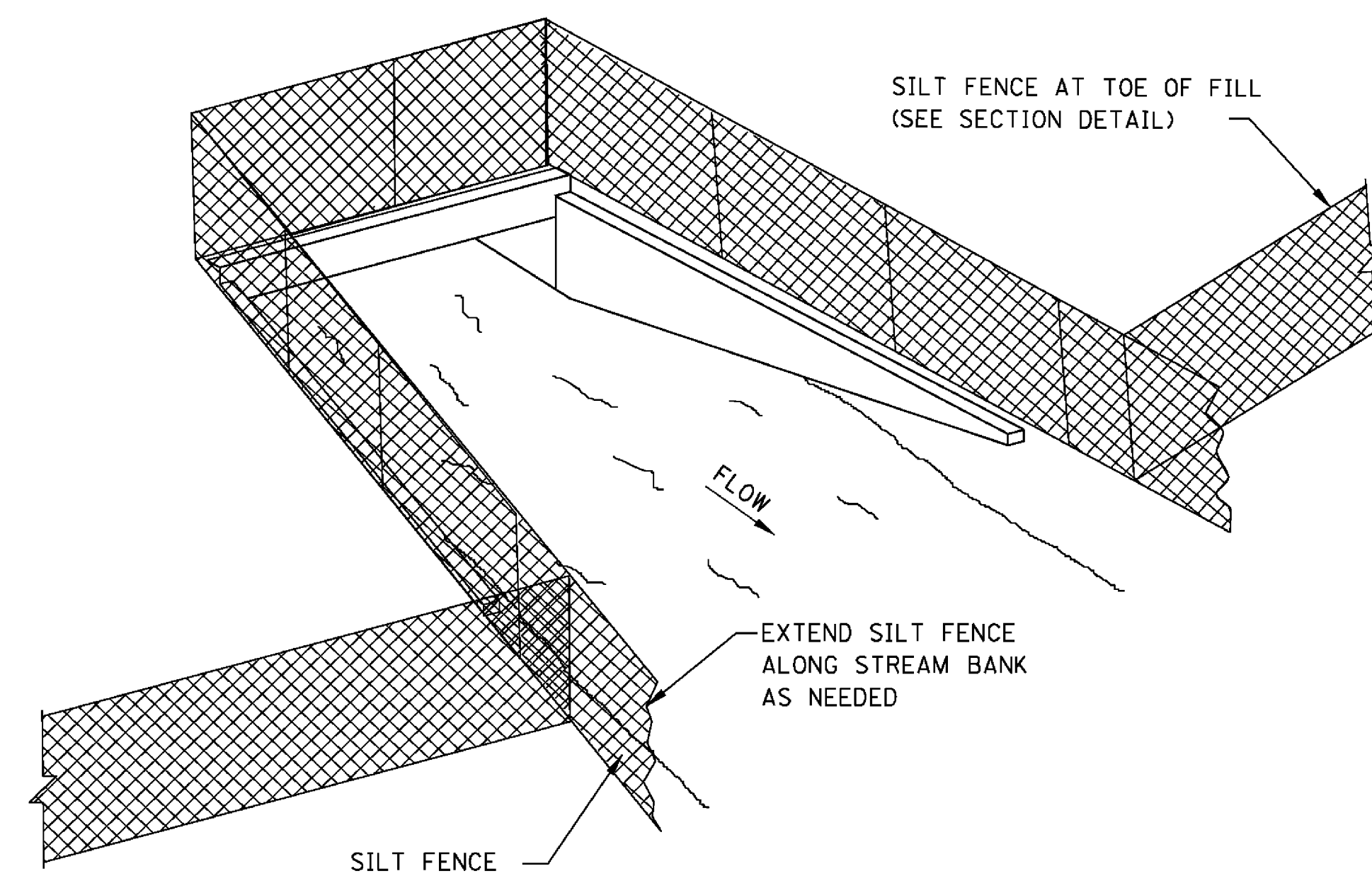




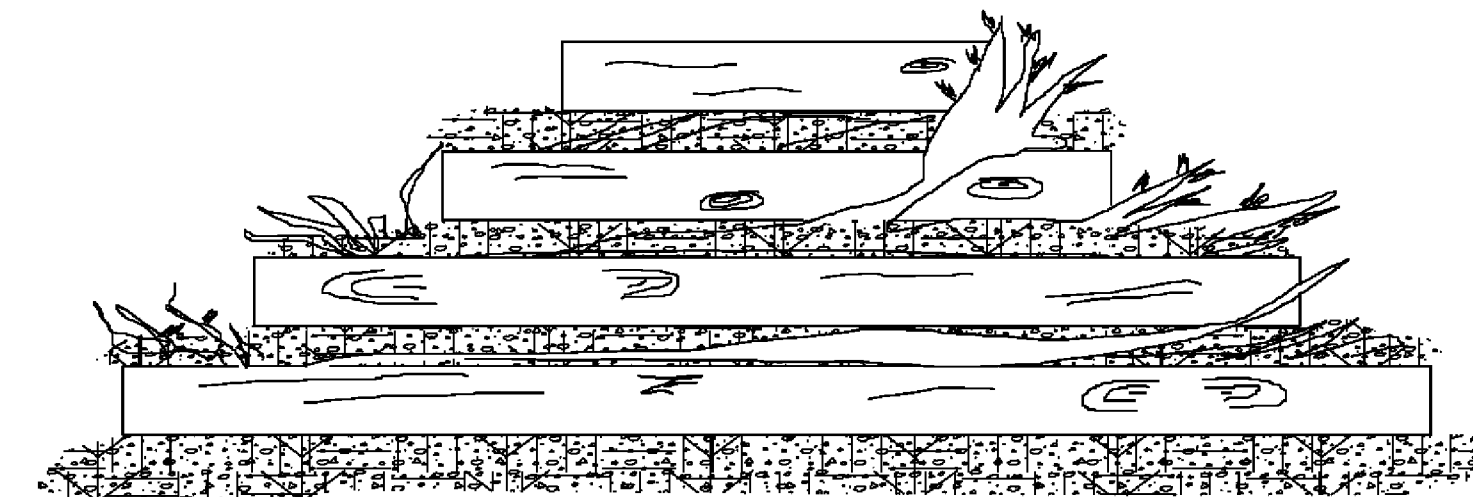




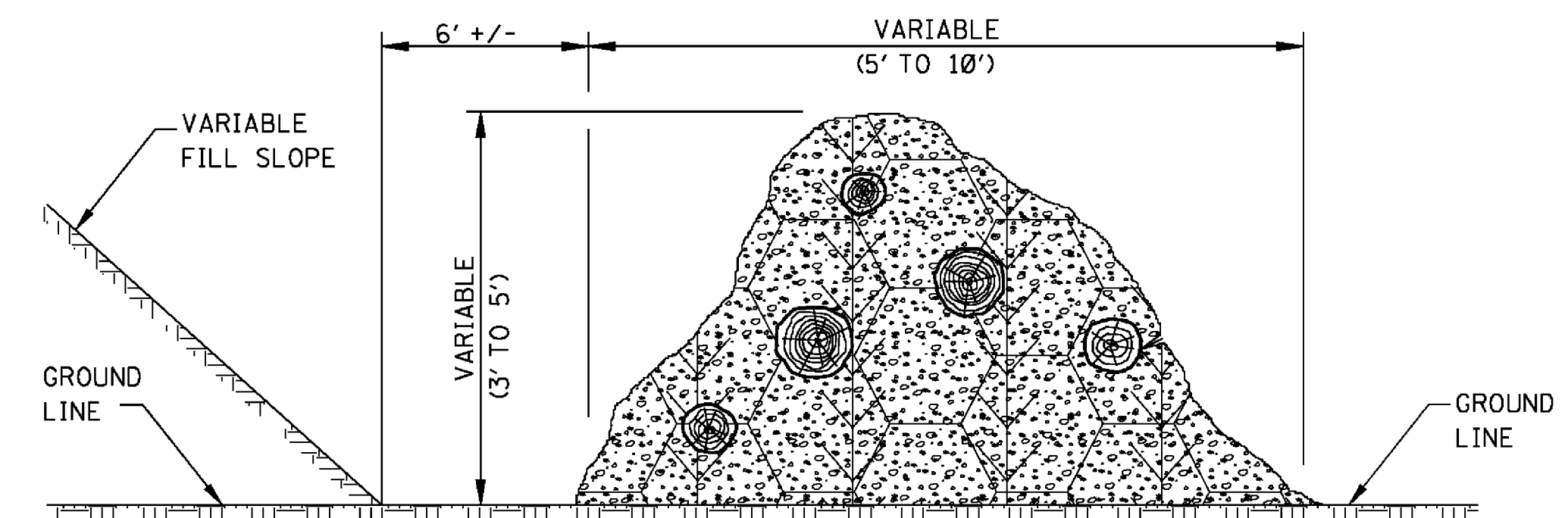
|       |             |
|-------|-------------|
| STATE | PROJECT NO. |
| MISS. |             |



### SEDIMENT BARRIER AT CROSS DRAIN



**FRONT ELEVATION**



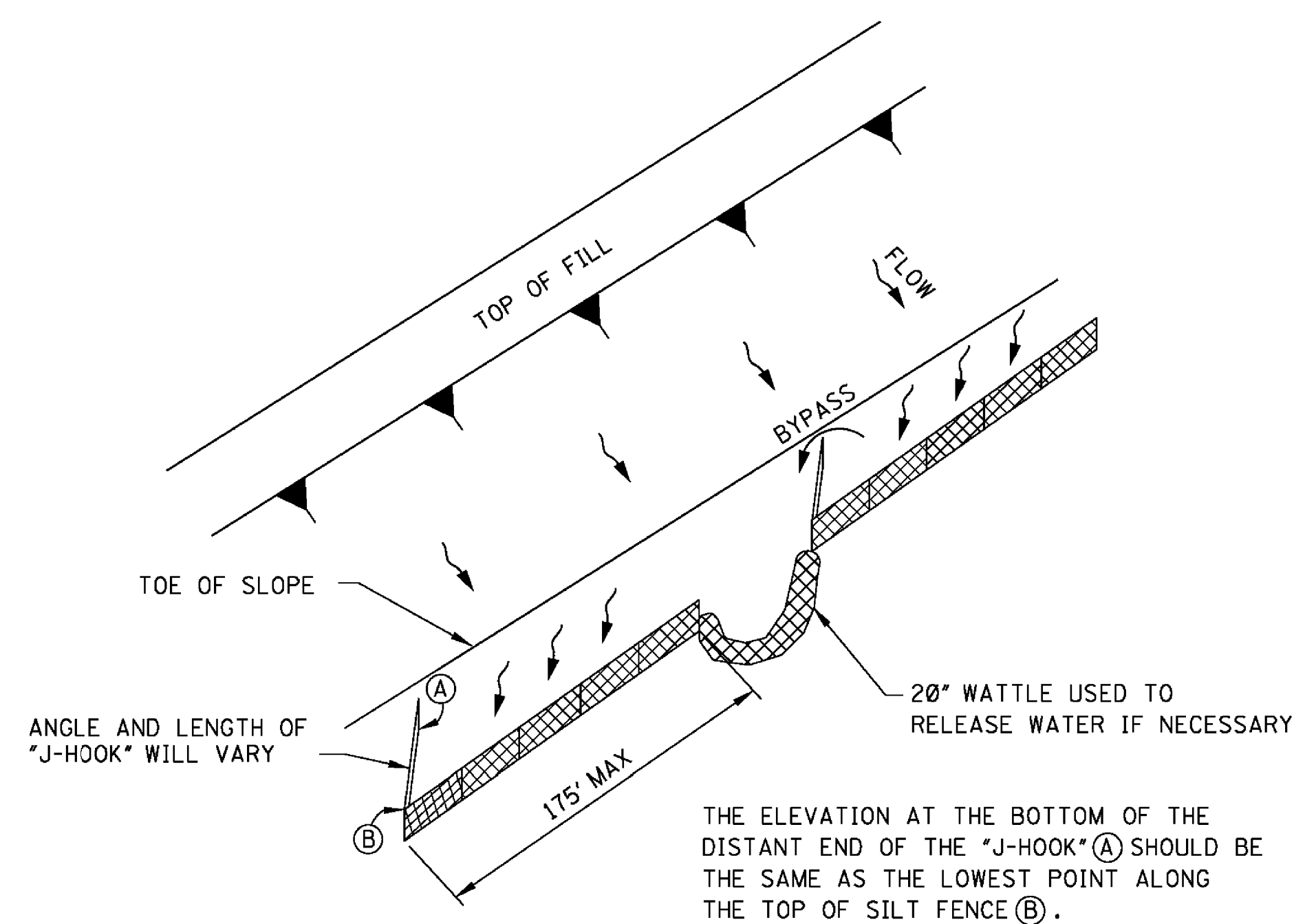
### SIDE ELEVATION

## TEMPORARY BRUSH BARRIER

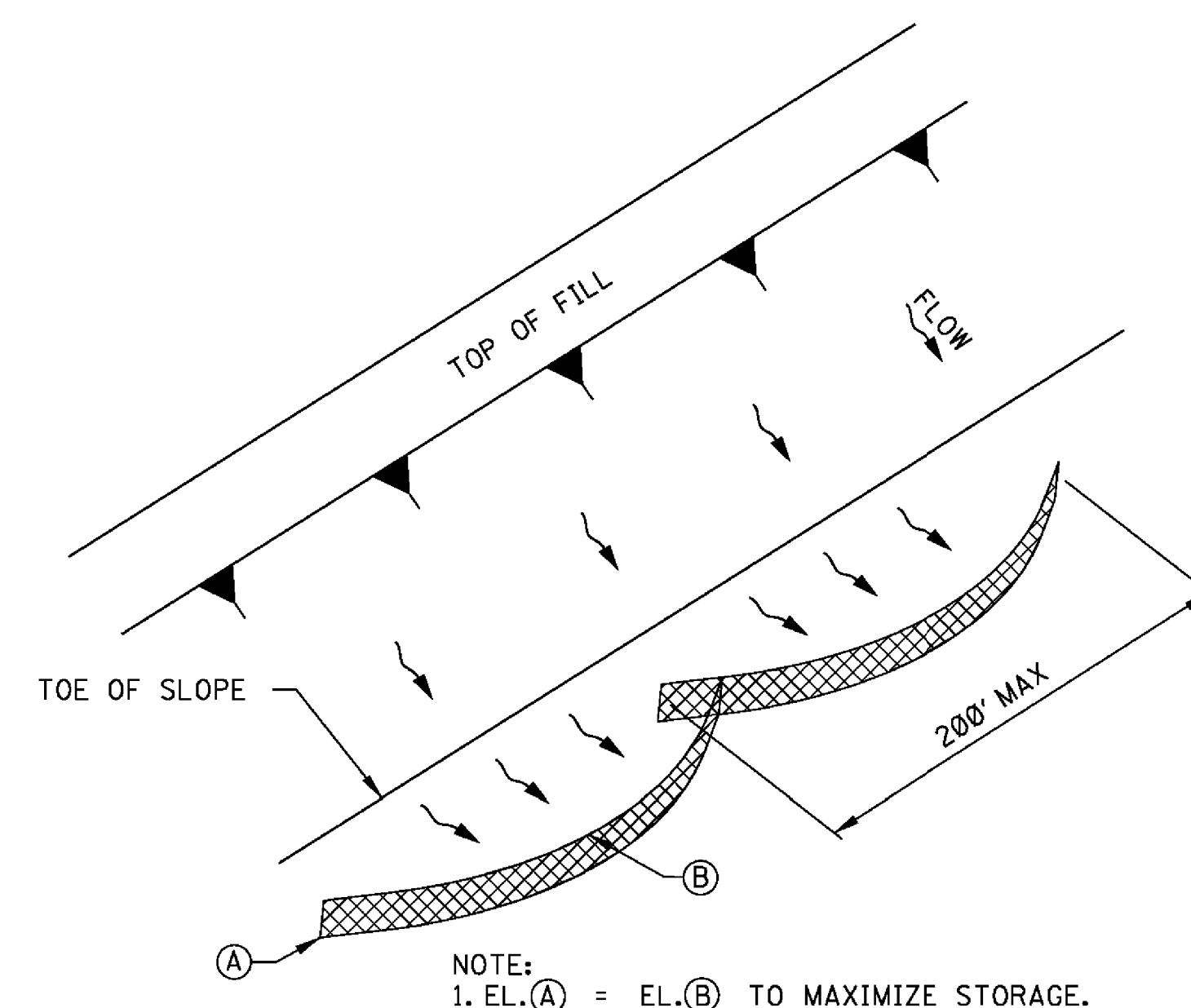
NOTES:

1. BRUSH BARRIER MAY BE USED WHERE NATURAL GROUND IS LEVEL OR SLOPING AWAY FROM PROJECT.
2. PLACE BRUSH, LOG AND TREE LAPS APPROXIMATELY PARALLEL TO TOE OF FILL SLOPE WITH SOME OF THE HEAVIER MATERIALS BEING PLACED ON TO TO PROPERLY SECURE THE BARRIER AS DETAILED AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED OR PERMITTED BY THE ENGINEER.
3. TO ALLOW WATER TO SEEP THROUGH BRUSH BARRIER, INTERMINGLE THE BRUSH, LOG AND TREE LAPS SO AS NOT TO FORM A SOLID DAM.
4. THE BRUSH BARRIER MAY BE CHOKED WITH FILTER FABRIC. THE COST OF FABRIC TO BE INCLUDED IN OTHER ITEMS BID.
5. TEMPORARY BRUSH BARRIER WILL NOT BE MEASURED FOR SEPARATE PAYMENT.

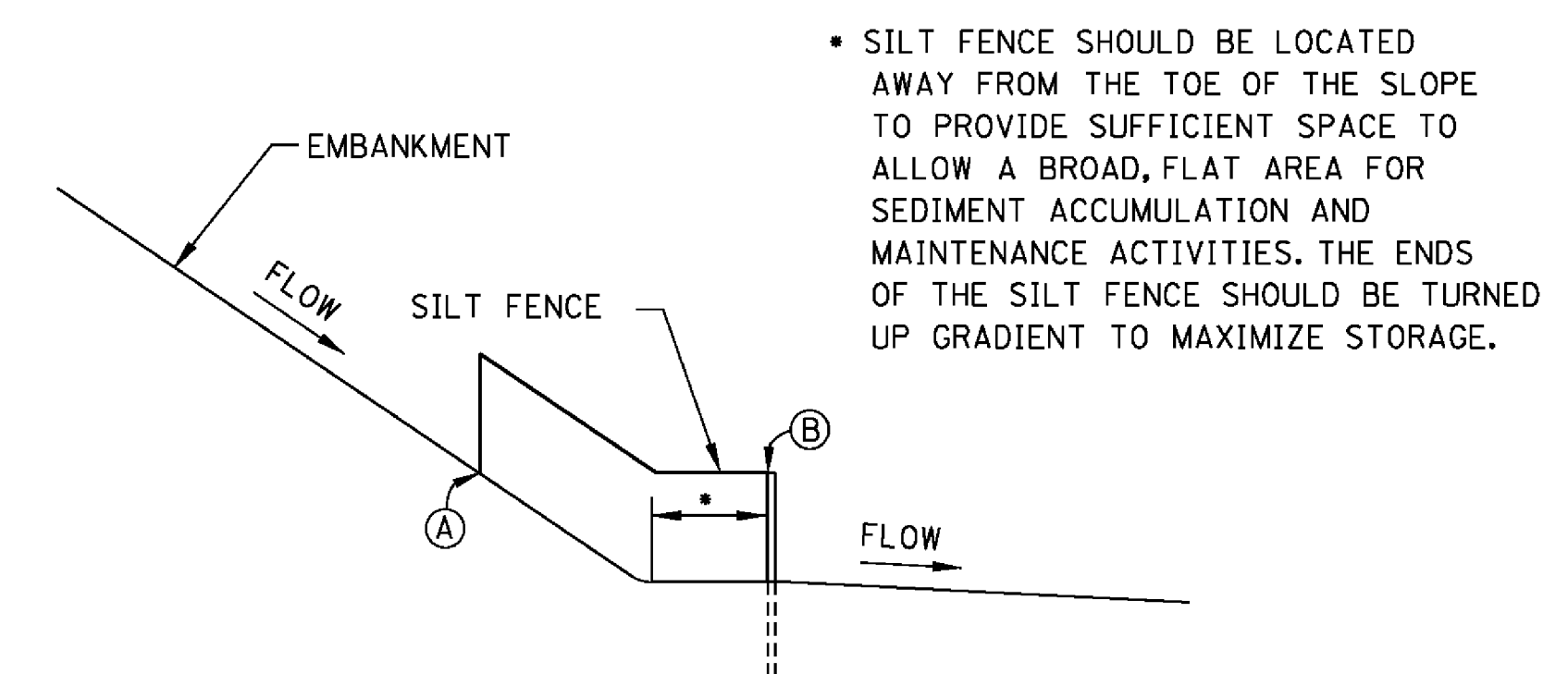
NOTE: ANCHOR AND INSTALL SILT FENCE PER DETAILS SHOWN ON WK. NO. ECD-3



## "J-HOOK" SILT FENCE APPLICATION



## "SMILE-CONFIGURATION" SILT FENCE APPLICATION

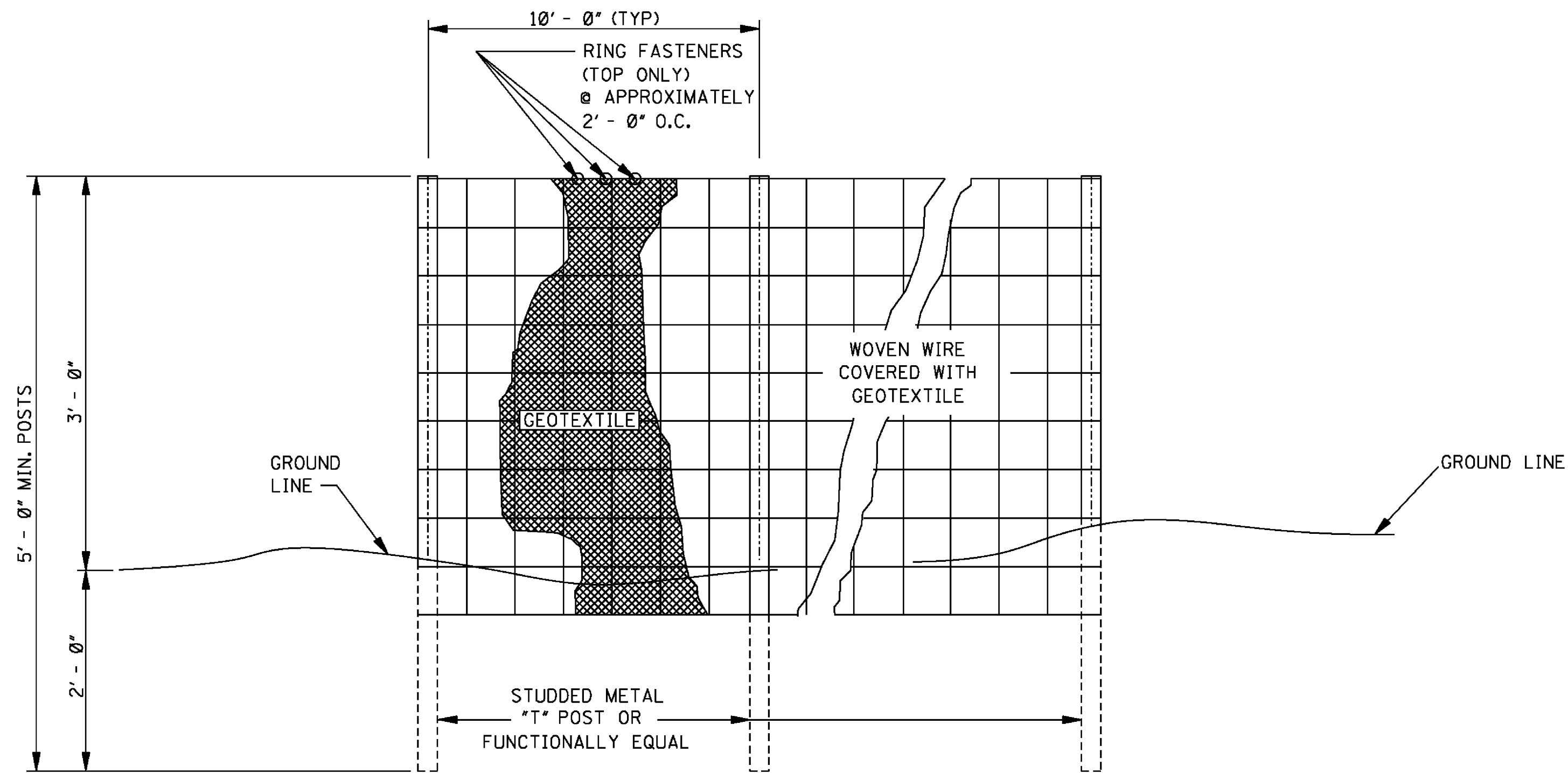


SILT FENCE SECTION AT  
TOE OF FILL

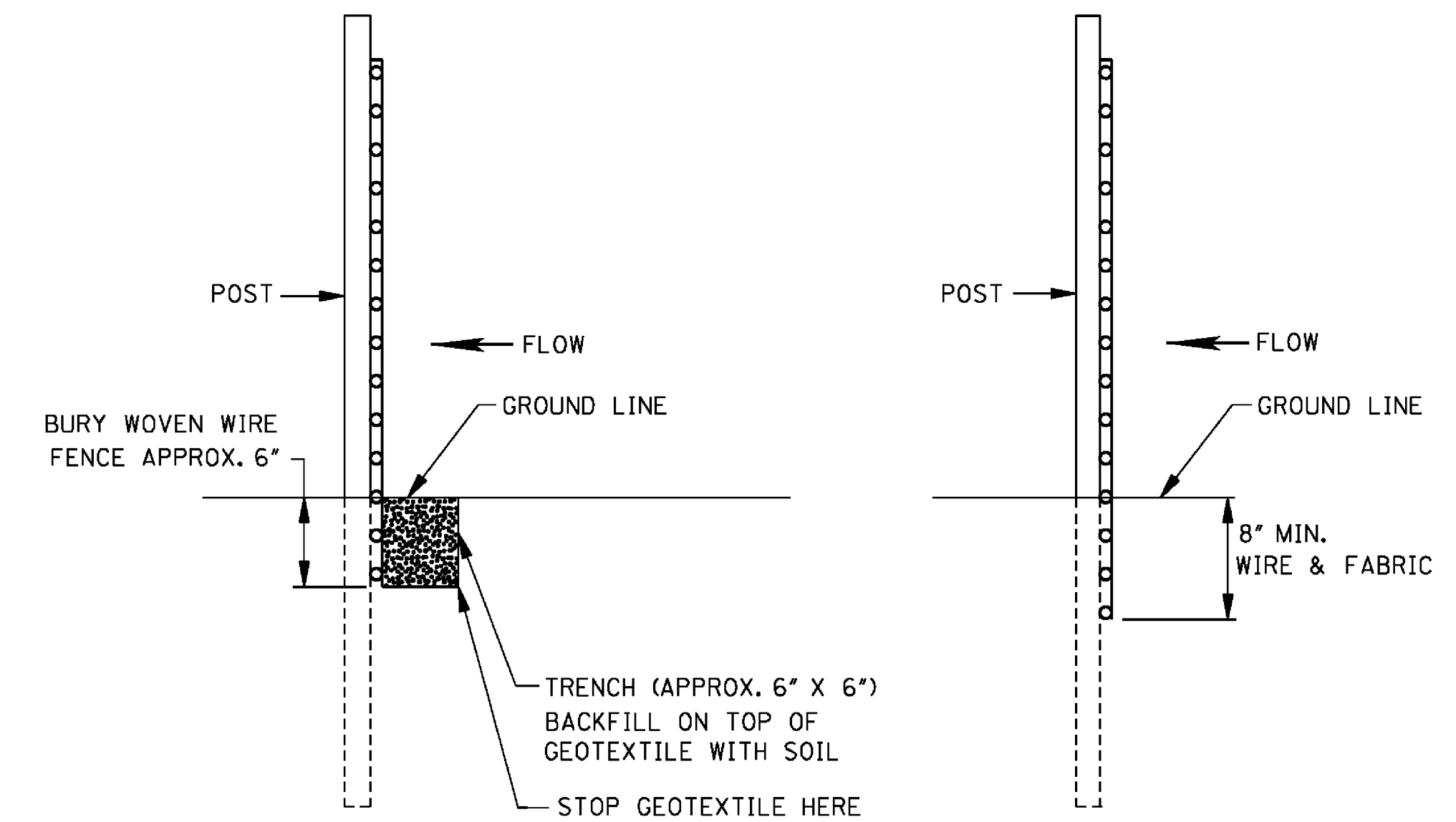
|  |  |  |  |          |                                                                                               |  |                                                                                                                                                              |
|--|--|--|--|----------|-----------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  |  | BY       | <b>MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br/>ROADWAY DESIGN DIVISION<br/>STANDARD PLAN</b> |  | <div><br/>WORKING NUMBER<br/>ECD-2<br/><br/>SHEET NUMBER<br/>6102</div> |
|  |  |  |  | REVISION | <b><i>DETAILS OF SEDIMENT<br/>BARRIER APPLICATIONS</i></b>                                    |  |                                                                                                                                                              |
|  |  |  |  |          |                                                                                               |  |                                                                                                                                                              |
|  |  |  |  |          |                                                                                               |  |                                                                                                                                                              |
|  |  |  |  |          |                                                                                               |  |                                                                                                                                                              |
|  |  |  |  |          |                                                                                               |  |                                                                                                                                                              |
|  |  |  |  | DATE     | ISSUE DATE: <u>AUGUST 01, 2017</u>                                                            |  |                                                                                                                                                              |



|       |             |
|-------|-------------|
| STATE | PROJECT NO. |
| MISS. |             |



**ELEVATION VIEW**



## METHOD I

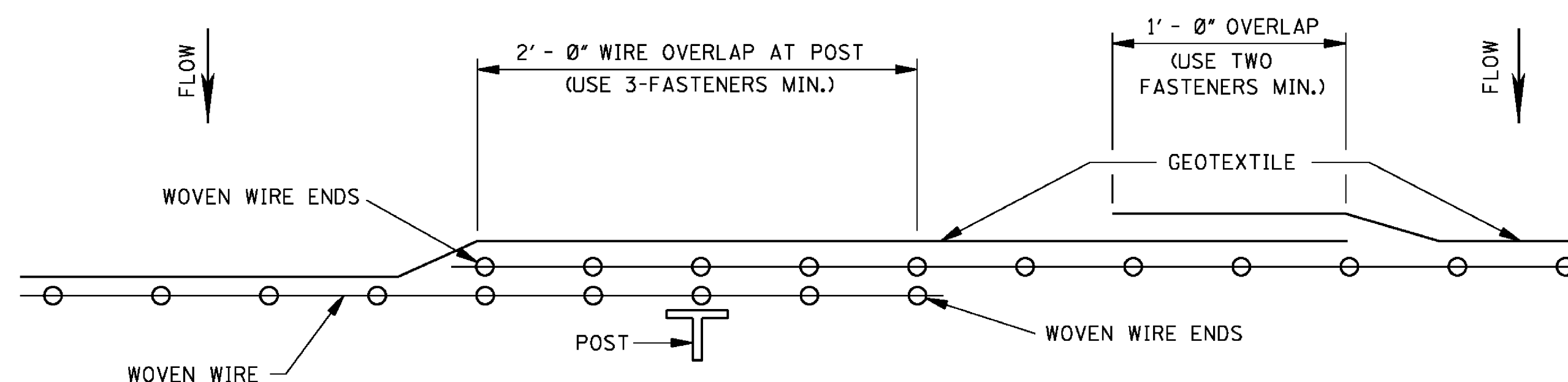
## METHOD II

### MECHANICAL INSTALLATION

### SIDE VIEW

GENERAL NOTES:

1. SILT FENCES SHOULD BE USED IN AREAS WHERE FLOW IS NOT SEVERE.
2. SILT FENCES ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHOULD BE ERECTED OPPOSITE ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STEAMS AND CHANNELS.
3. SILT FENCE SHOULD BE PLACED WELL INSIDE RIGHT-OF-WAY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR BACK-UP FENCE IF FIRST FENCE BECOMES FULL.
4. WHENEVER POSSIBLE SILT FENCE SHOULD BE CONSTRUCTED ACROSS A LEVEL AREA IN THE SHAPE OF A SMILE. THIS AIDS IN PONDING OF RUNOFF AND FACILITATES SEDIMENTATION.
5. THE CONTRACTOR MAY ELECT TO USE EITHER METHOD I OR METHOD II. COST TO BE LINEAR FEET OF SILT FENCE.
6. METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES A CONFIGURATION MEETING THE REQUIREMENTS OF DETAIL.
7. WIRE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
8. GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATION MAY BE USED WITHOUT WIRE FENCE.



### PLAN VIEW

### REQUIRED LAPPING

[illegible]









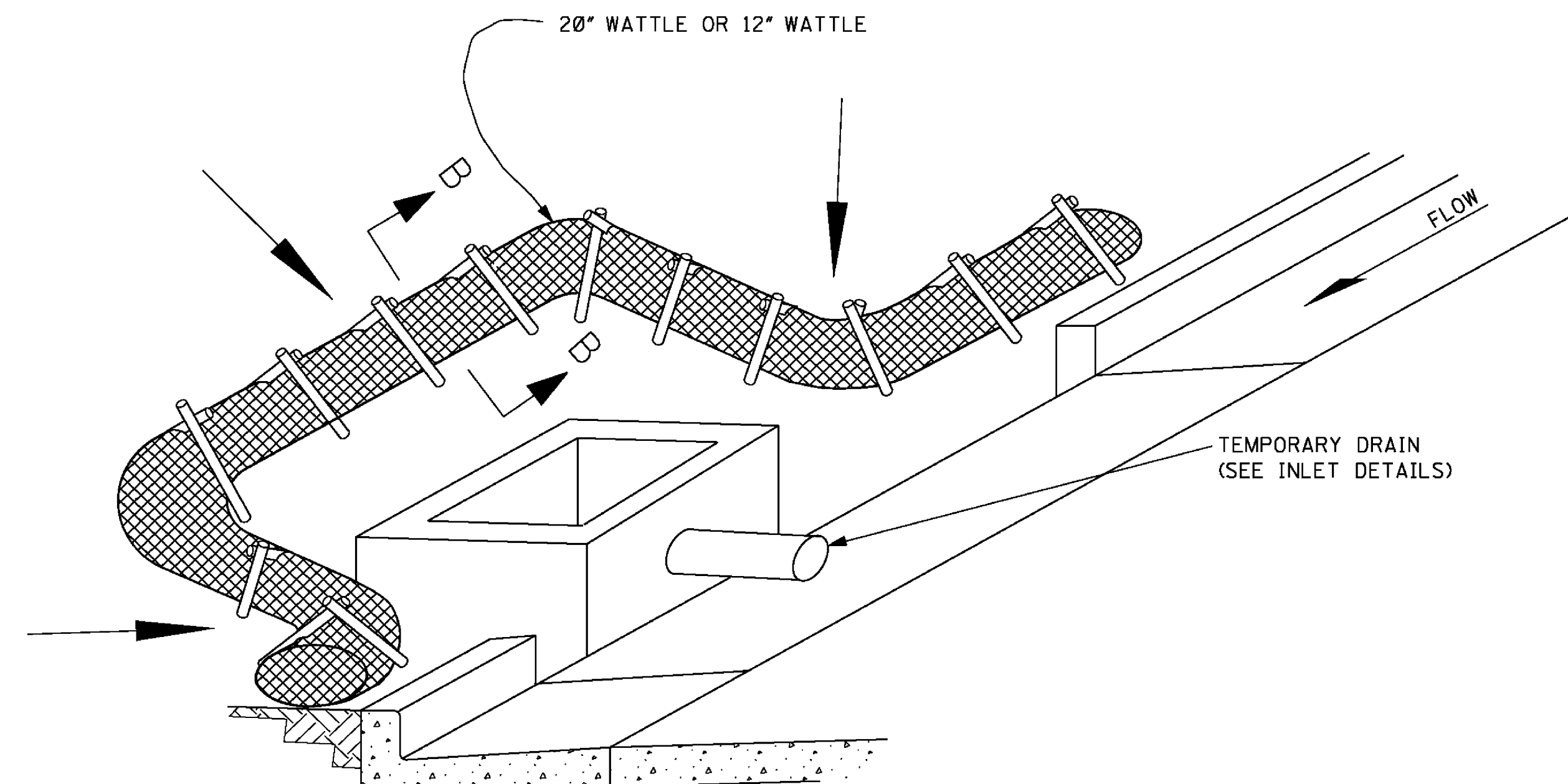




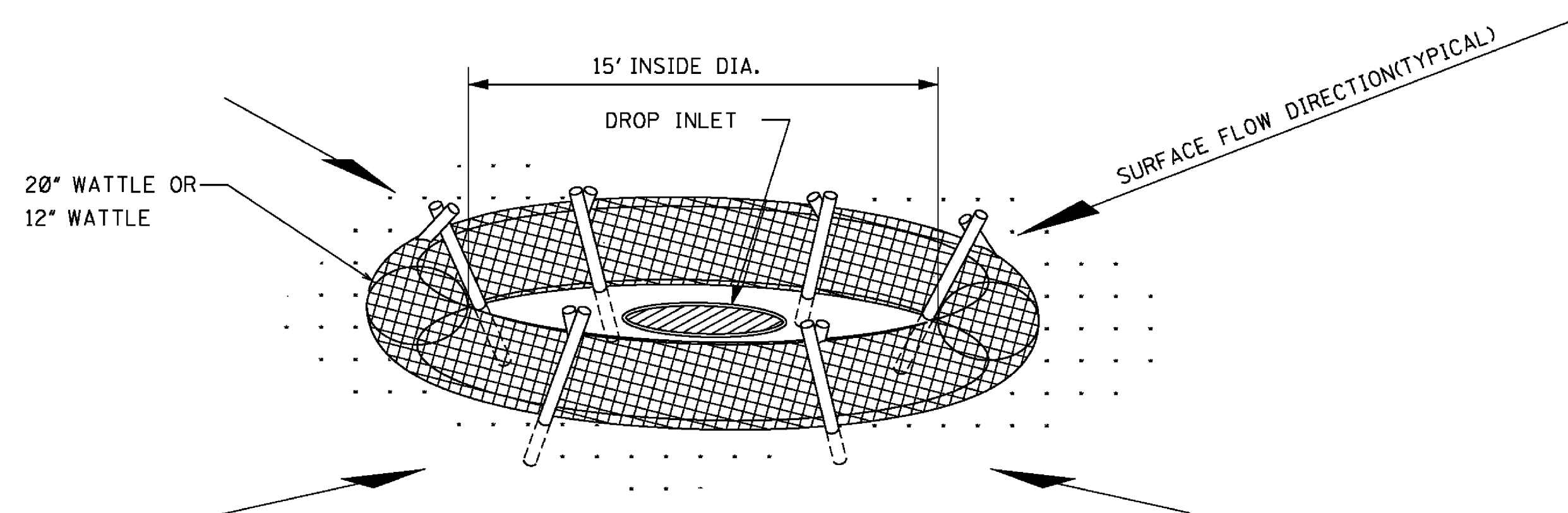


|       |             |
|-------|-------------|
| STATE | PROJECT NO. |
| MISS. |             |

NOTE: SILT FENCE OR SANDBAGS MAY ALSO BE USED FOR THIS APPLICATION.  
HAY BALES NOT ACCEPTABLE DURING THIS STAGE.



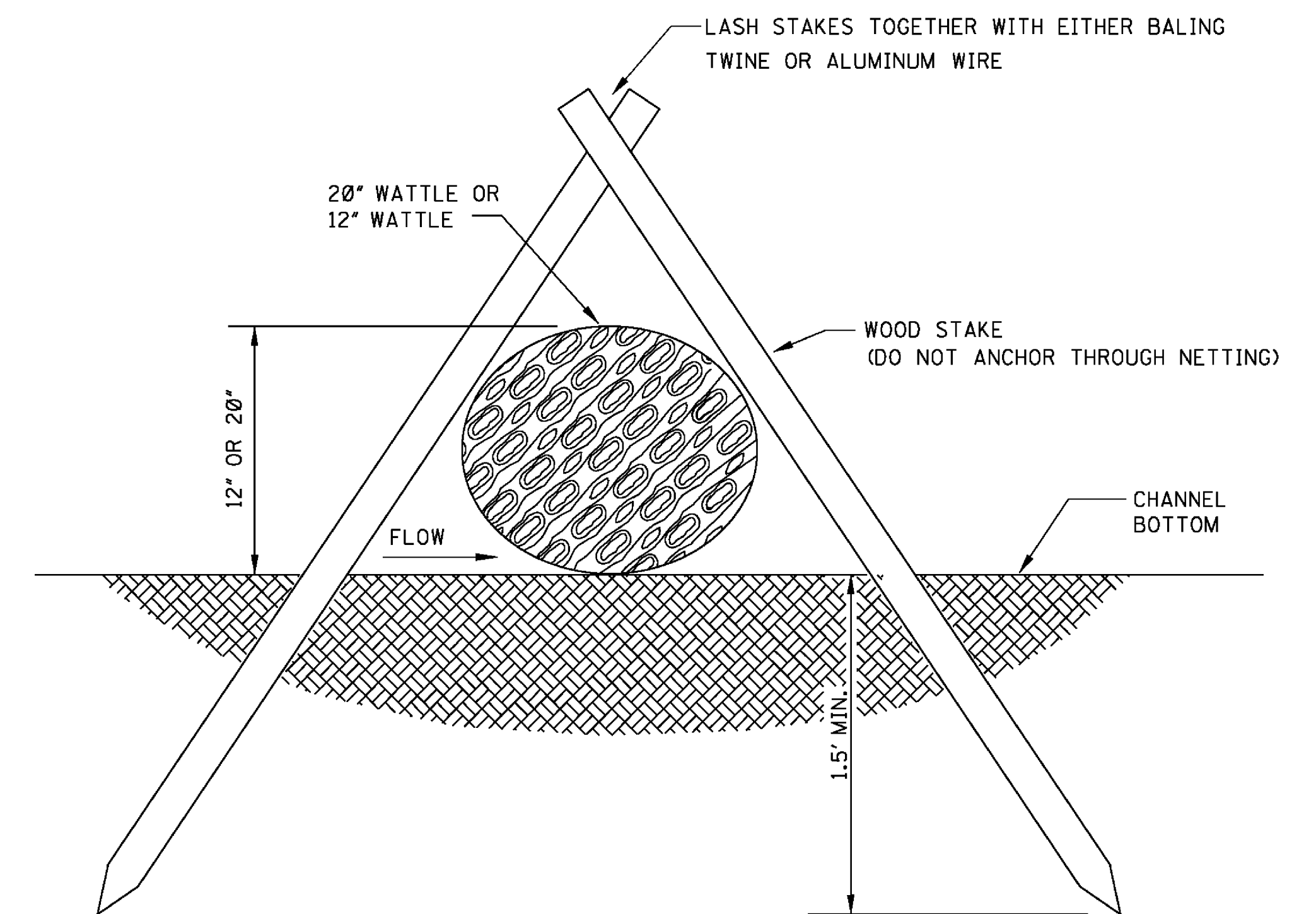
**CURB INLET PROTECTION (STAGE 2)**  
**SINGLE OR DOUBLE WING INLET**



## DROP INLET PROTECTION

NOTES:

1. ANCHORING STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE WATTLE. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET.
2. OVERLAP ENDS OF WATTLES PER MANUFACTURER'S RECOMMENDATIONS (1' MIN., 3' MAX.)
3. TRENCHING OF WATTLES MAY BE NECESSARY IF PIPING BECOMES EVIDENT.
4. IN THE EVENT WATTLES CANNOT BE SECURED IN PLACE USING WOOD STAKES, SANDBAGS MAY BE USED IN LIEU OF WOOD STAKES IN ORDER TO SECURE WATTLES IN PLACE. COST OF SANDBAGS USED IN THIS APPLICATION SHALL BE INCLUDED IN OTHER ITEMS BID.

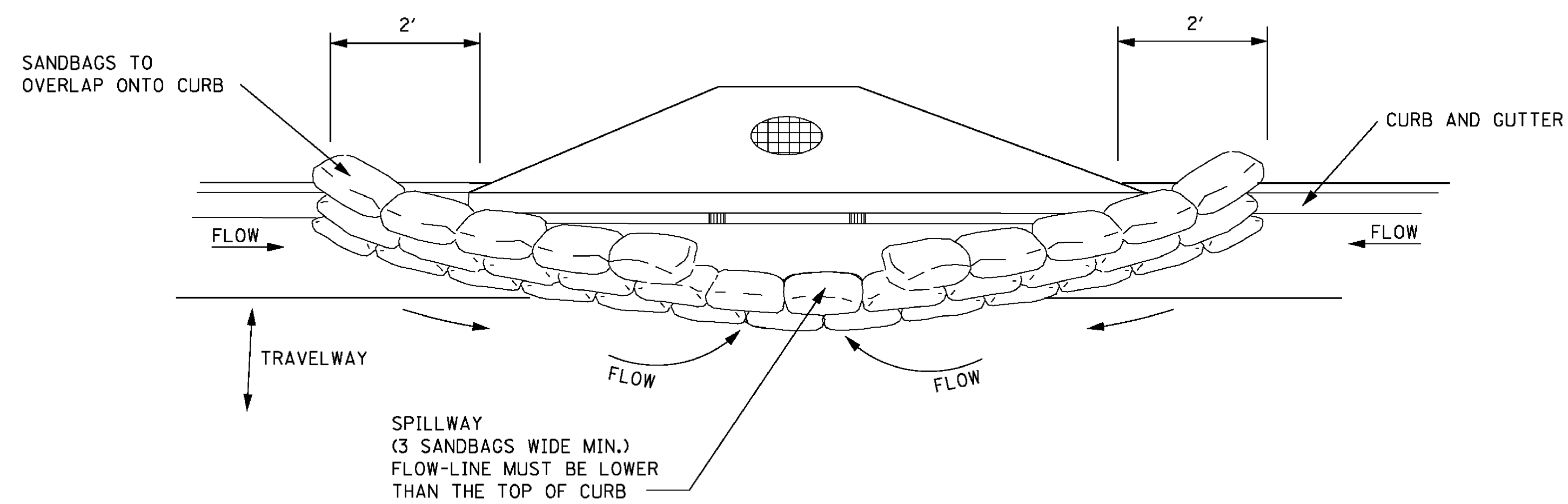


**SECTION B-B**

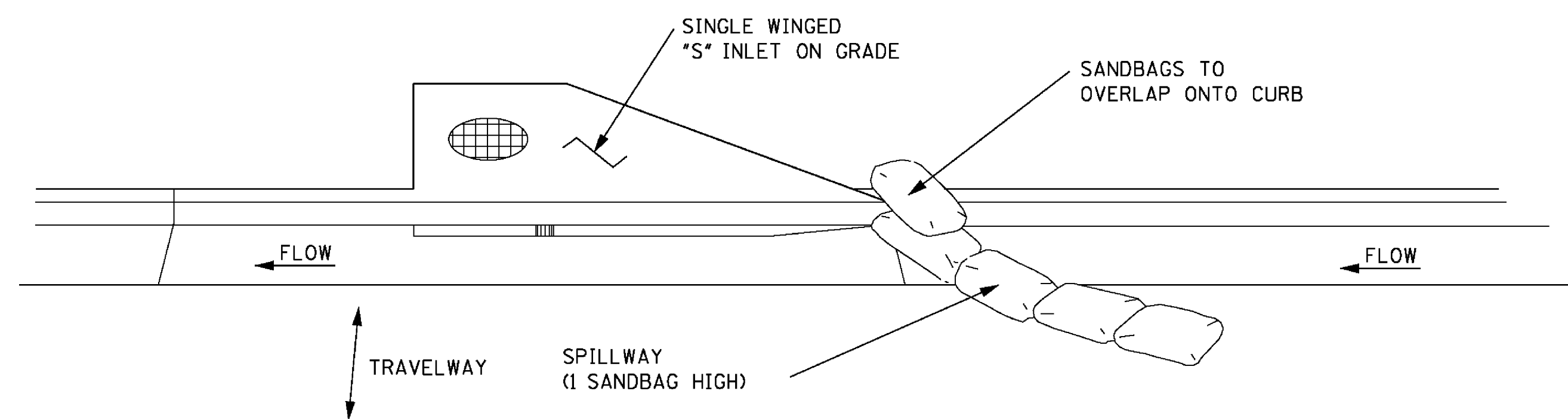
|  |  |  |  |          |                                                                                      |                                                                                                                   |
|--|--|--|--|----------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|  |  |  |  | BY       | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>ROADWAY DESIGN DIVISION<br>STANDARD PLAN | <br>WORKING NUMBER<br>ECD-13 |
|  |  |  |  | REVISION |                                                                                      |                                                                                                                   |
|  |  |  |  | DATE     | <b>INLET PROTECTION<br/>DETAILS OF WATTLES</b>                                       | SHEET NUMBER<br>6113                                                                                              |
|  |  |  |  |          | ISSUE DATE: <u>AUGUST 01, 2017</u>                                                   |                                                                                                                   |



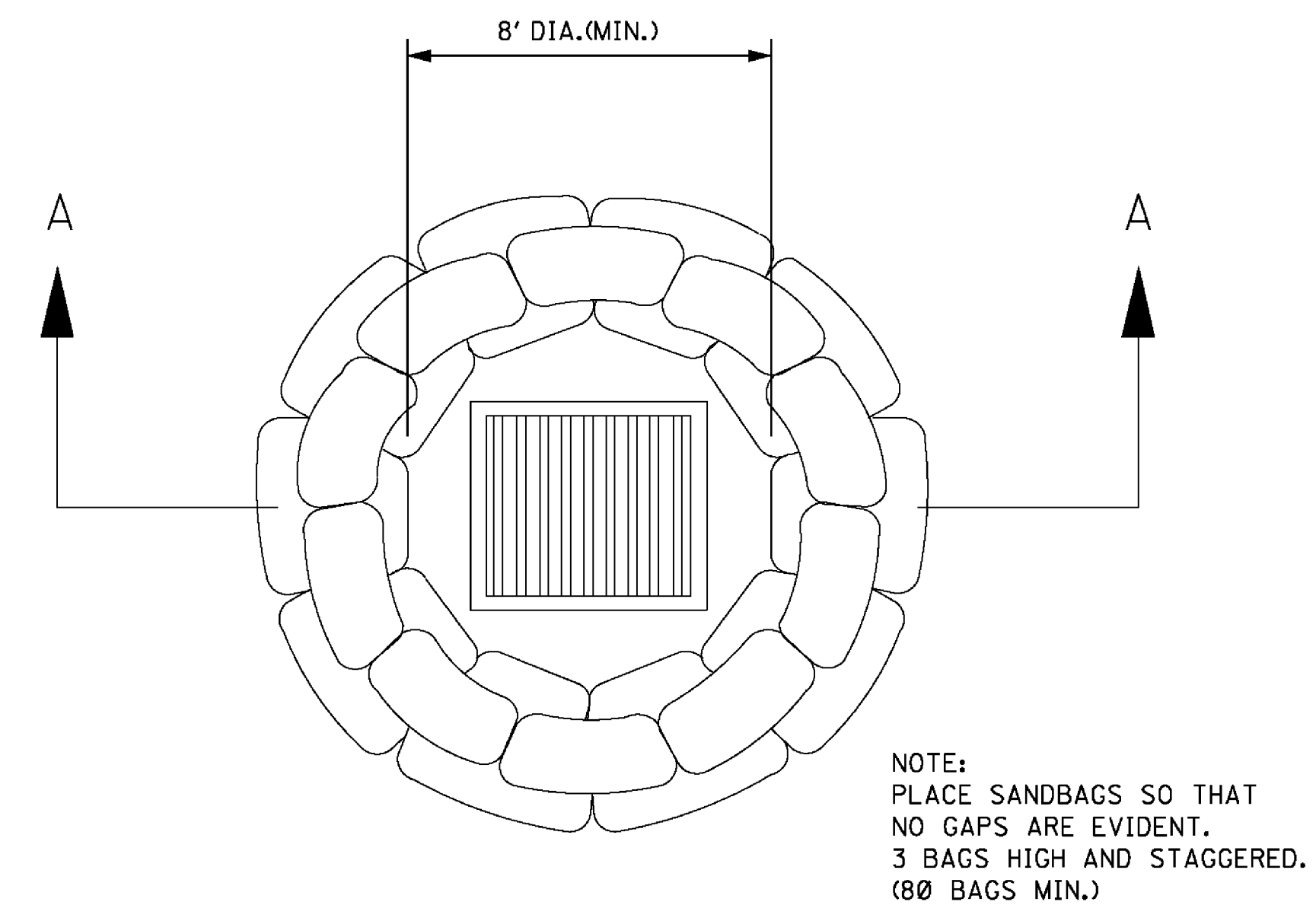
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| STATE | PROJECT NO. |
| MISS. |             |



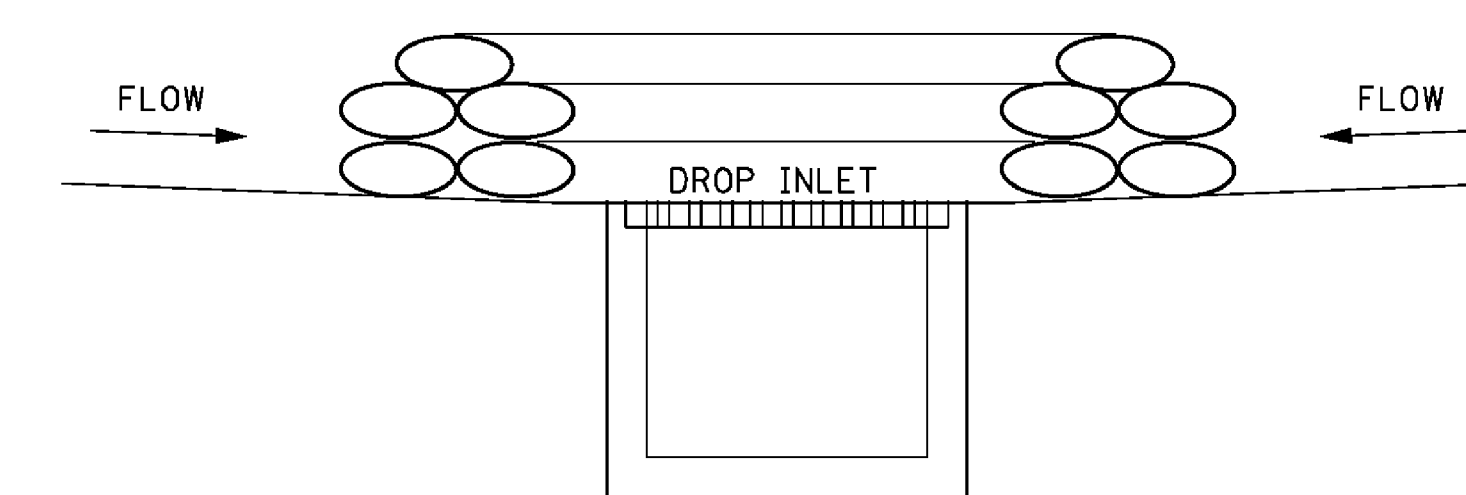
### TYPICAL (SANDBAG) PROTECTION FOR INLET IN SAG



### TYPICAL (SANDBAG) PROTECTION FOR INLET ON GRADE



DROP INLET  
PLAN VIEW

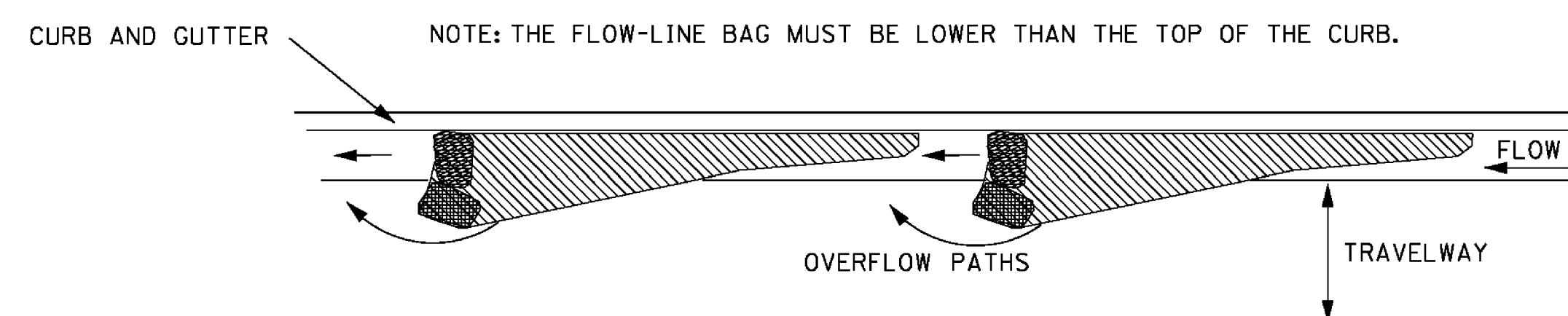


SECTION A-A

SANDBAG BARRIER

- CURB INLET PROTECTION NOTES:

1. THIS CURB INLET PROTECTION METHOD CAN BE USED DURING ANY STAGE OF BASE AND PAVEMENT CONSTRUCTION.
2. BAG HEIGHT AND NUMBER OF BAGS SHOULD BE BASED ON CURB HEIGHT AND USE OF TRAVELWAY.
3. SEDIMENT SHOULD BE CONTROLLED PRIOR TO ENTERING GUTTER. GUTTER CHECKS AND INLET PROTECTION ARE FOR SECONDARY CONTROL.
4. REMOVE ACCUMULATED SEDIMENT AFTER EVERY RAINFALL. SWEEP SEDIMENT FROM HARD SURFACES AND DISPOSE OF APPROPRIATELY AWAY FROM INLETS AND/OR WATER BODIES.
5. IF DENUDED AREAS EXIST BEHIND THE INLET, A SEDIMENT BARRIER SHOULD BE INSTALLED AROUND ITS PERIMETER TO CONTROL SEDIMENT.



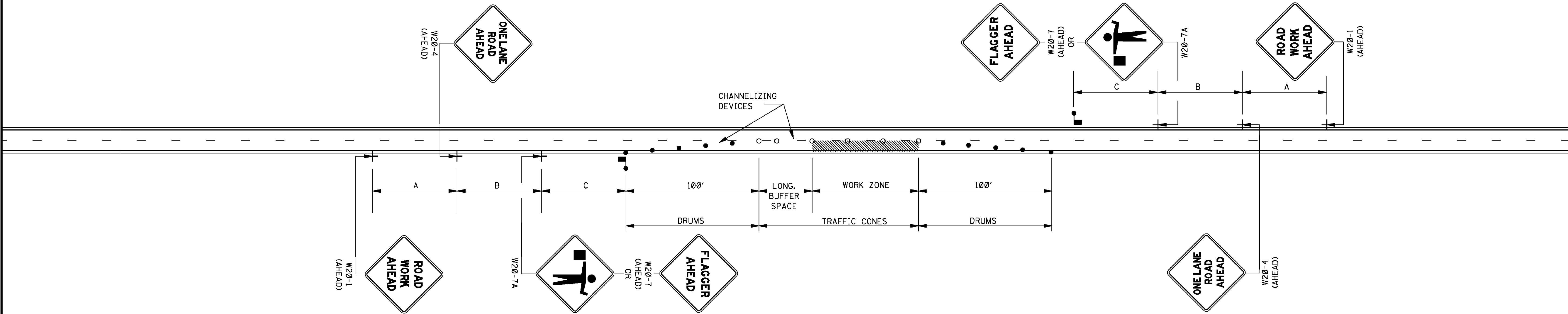
## CURB AND GUTTER SEDIMENT CONTAINMENT SYSTEM

|  |  |  |  |          |                                                                                      |  |                                                                                                                   |
|--|--|--|--|----------|--------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------|
|  |  |  |  | BY       | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>ROADWAY DESIGN DIVISION<br>STANDARD PLAN |  |                                                                                                                   |
|  |  |  |  | REVISION | <b>INLET PROTECTION<br/>DETAILS OF SANDBAGS</b>                                      |  | <br>WORKING NUMBER<br>ECD-15 |
|  |  |  |  | DATE     |                                                                                      |  |                                                                                                                   |
|  |  |  |  |          | ISSUE DATE: <u>AUGUST 01, 2017</u>                                                   |  | SHEET NUMBER<br>6115                                                                                              |









GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE. FLAGGER STATIONS SHALL BE LOCATED SUCH THAT APPROACHING VEHICLES WILL HAVE SUFFICIENT DISTANCE TO STOP. VALUES IN STOPPING SIGHT DISTANCE COLUMN MAY BE USED AS A MINIMUM FOR THIS DISTANCE.

| POSTED SPEED<br>AND/OR<br>DESIGN SPEED | MAXIMUM<br>CHANNELIZING<br>DEVICE SPACING<br>(ft) |                                   | LONGITUDINAL<br>BUFFER SPACE<br>(ft) | STOPPING<br>SIGHT<br>DISTANCE |
|----------------------------------------|---------------------------------------------------|-----------------------------------|--------------------------------------|-------------------------------|
|                                        | TAPER                                             | ALONG<br>LANE LINE &<br>WORK ZONE |                                      |                               |
| mph                                    |                                                   |                                   |                                      |                               |
| 25                                     | 20                                                | 50                                | 55                                   | 155                           |
| 30                                     | 20                                                | 60                                | 85                                   | 200                           |
| 35                                     | 20                                                | 70                                | 120                                  | 250                           |
| 40                                     | 20                                                | 80                                | 170                                  | 305                           |
| 45                                     | 20                                                | 90                                | 220                                  | 360                           |
| 50                                     | 20                                                | 100                               | 280                                  | 425                           |
| 55                                     | 20                                                | 110                               | 335                                  | 495                           |
| 60                                     | 20                                                | 120                               | 415                                  | 570                           |
| 65                                     | 20                                                | 130                               | 485                                  | 645                           |

† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 28" IN HEIGHT.
3. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 36" x 36" AND BLACK COPY ON FLUORESCENT ORANGE SHEETING.
4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
5. ADDITIONAL FLAGGERS MAY BE NEEDED AS DIRECTED BY THE ENGINEER.
6. WHEN WORK IS REQUIRED AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED.
7. CHANNELIZING DEVICE TYPES FOR:  
A. APPROACH AND EXIT TAPERS- RETROREFLECTIVE PLASTIC DRUMS  
B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
8. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

LEGEND

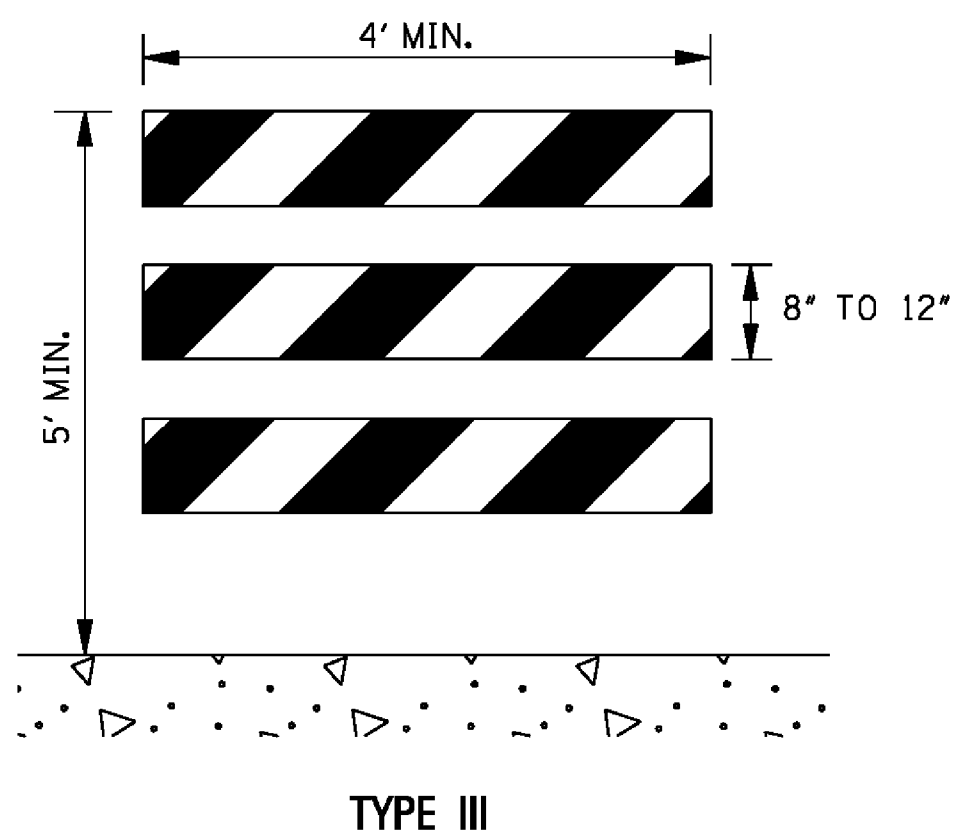
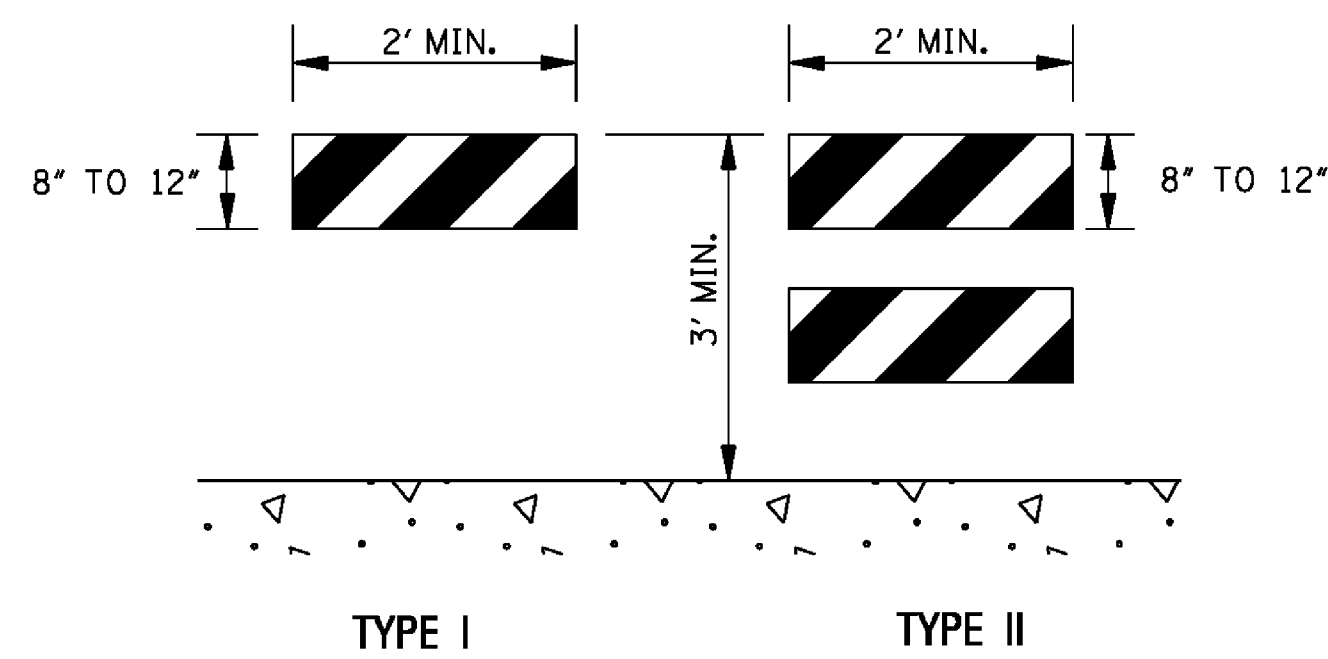
- FLAGGER
- RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
- TRAFFIC CONES (28" HEIGHT MINIMUM)

| DISTANCE BETWEEN SIGNS |          |          |          |
|------------------------|----------|----------|----------|
| ROAD TYPE              | A        | B        | C        |
| URBAN (35 MPH OR LESS) | 100 FT.  | 100 FT.  | 100 FT.  |
| URBAN (40 - 70 MPH)    | 350 FT.  | 350 FT.  | 350 FT.  |
| RURAL                  | 500 FT.  | 500 FT.  | 500 FT.  |
| EXPRESSWAY / FREEWAY   | 1000 FT. | 1500 FT. | 2640 FT. |

|  |  |  |  |          |                                                                                                                  |
|--|--|--|--|----------|------------------------------------------------------------------------------------------------------------------|
|  |  |  |  | BY       | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>ROADWAY DESIGN DIVISION<br>STANDARD PLAN                             |
|  |  |  |  | REVISION |                                                                                                                  |
|  |  |  |  | DATE     | ISSUE DATE: AUGUST 01, 2017                                                                                      |
|  |  |  |  |          | <b>TRAFFIC CONTROL PLAN<br/>WITH FLAGGER<br/>(ONE-LANE CLOSURE OF<br/>TWO-WAY TRAFFIC)</b>                       |
|  |  |  |  |          | <br>WORKING NUMBER<br>TCP-1 |
|  |  |  |  |          | SHEET NUMBER<br>6351                                                                                             |

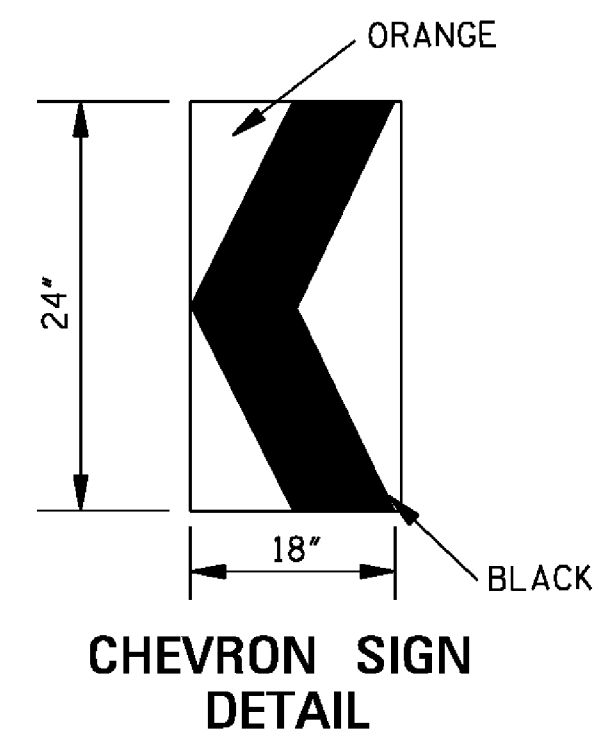


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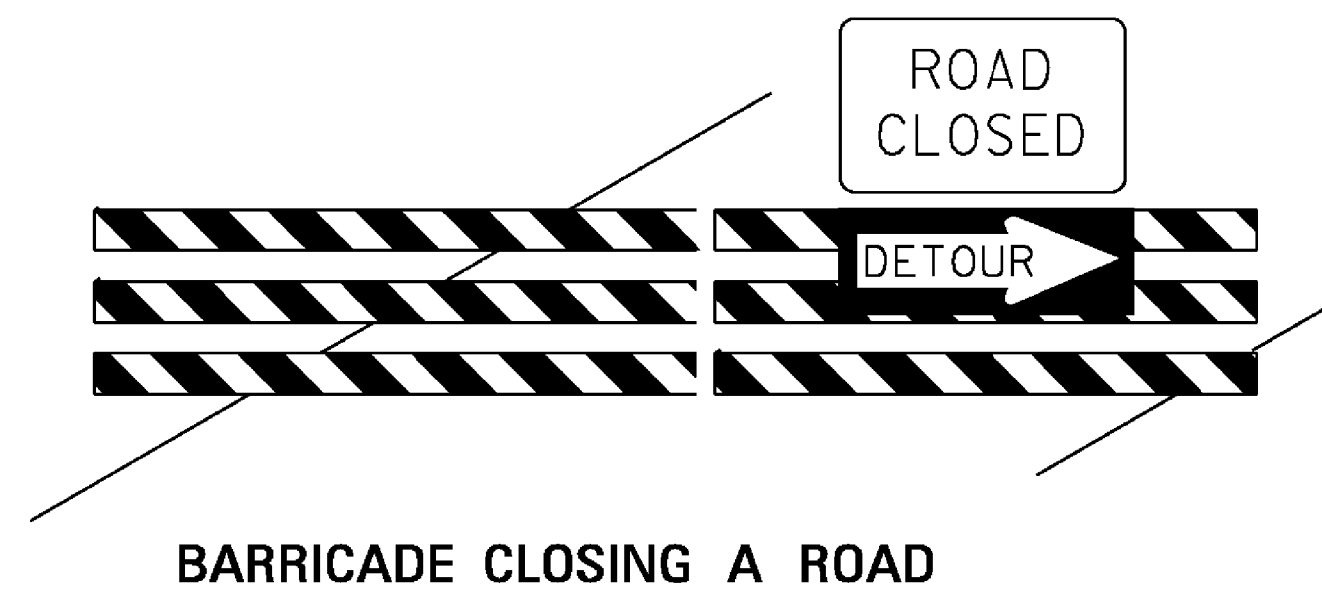


## STANDARD BARRICADES

1. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
2. RAIL STRIPE SHOULD BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
3. DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
4. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.
5. BARRICADES ARE CLASSIFIED BY FHWA AS CATEGORY II WORK ZONE DEVICES WHICH REQUIRE CRASHWORTHINESS ACCEPTANCE LETTERS. TO DATE, 2-IN. THICK TIMBER RAILS HAVE NOT BEEN SUCCESSFULLY CRASH TESTED. A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE:  
[http://safety.fhwa.dot.gov/roadway\\_dept/policy\\_guide/road\\_hardware/cat2.cfm](http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/cat2.cfm)



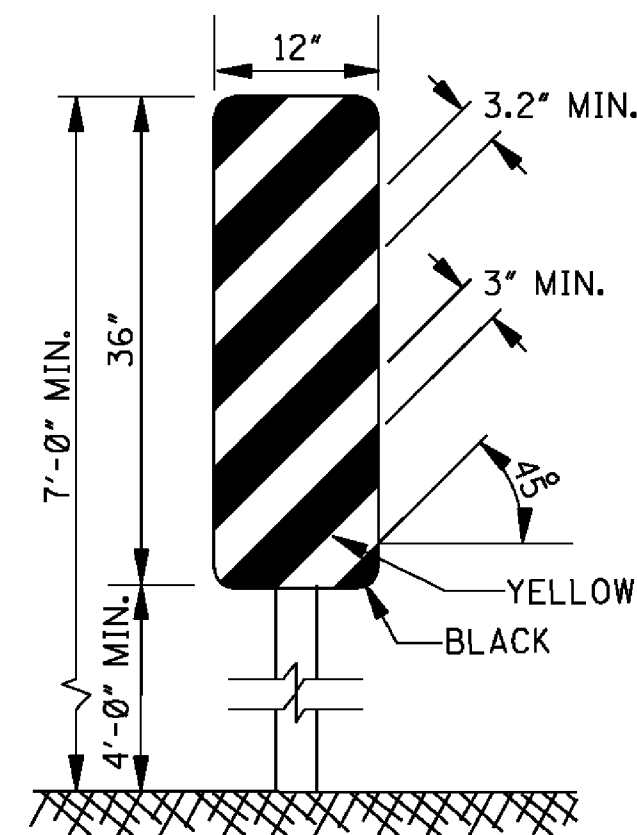
1. A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
2. THE CHEVRON SIGN SHALL BE MOUNTED ON CRASHWORTHY SUPPORT.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHOULD BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.



## BARRICADE CHARACTERISTICS

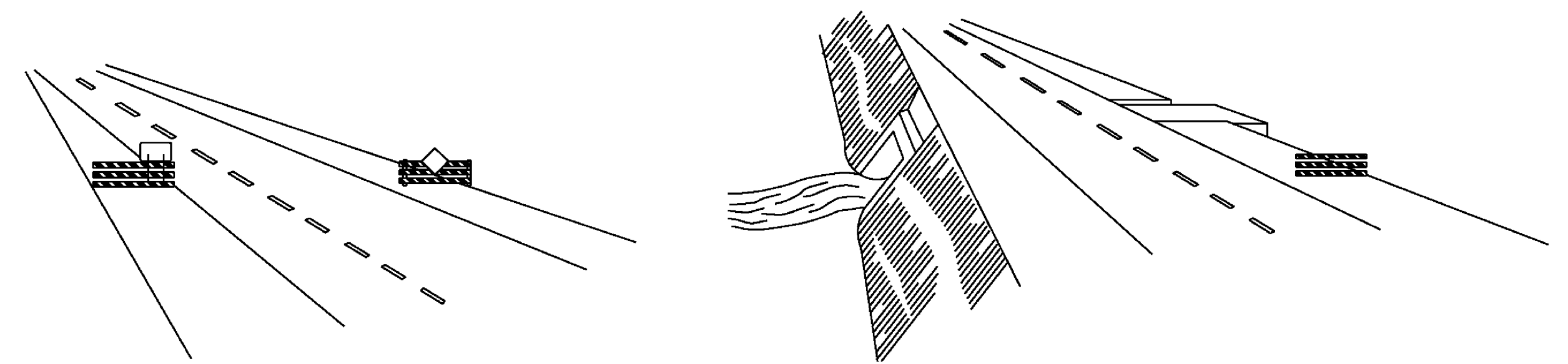
|                                         | I                      | II                     | III                                                                           |
|-----------------------------------------|------------------------|------------------------|-------------------------------------------------------------------------------|
| WIDTH OF RAIL **                        | 8" MIN. - 12" MAX.     | 8" MIN. - 12" MAX.     | 8" MIN. - 12" MAX.                                                            |
| LENGTH OF RAIL**                        | 24" MIN.               | 24" MIN.               | 48" MIN.                                                                      |
| WIDTH OF STRIPE *                       | 6"                     | 6"                     | 6"                                                                            |
| HEIGHT                                  | 36" MIN.               | 36" MIN.               | 60" MIN.                                                                      |
| NUMBER OF RETROREFLECTORIZED RAIL FACES | 2 (ONE EACH DIRECTION) | 4 (TWO EACH DIRECTION) | 3 IF FACING TRAFFIC IN ONE DIRECTION<br>6 IF FACING TRAFFIC IN TWO DIRECTIONS |

- \* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.
- \*\* 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 in<sup>2</sup> OF REFLECTIVE AREA FACING TRAFFIC.



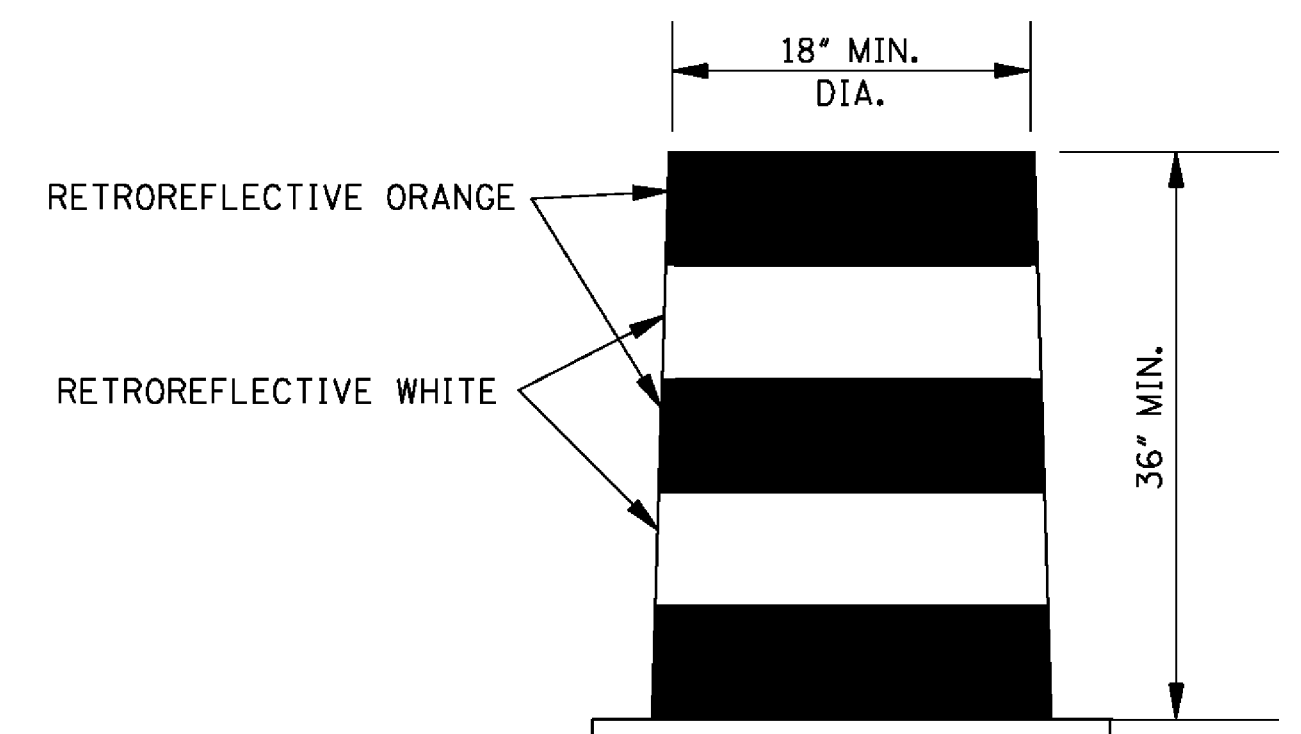
**TYPE 3 OBJECT MARKER**  
(OM-3R)

1. TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
2. THE OM-3R IS SHOWN. THE OM-3L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.



## WING BARRICADES

1. WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAVEMENT TO GIVE THE SENSATION OF A NARROWING OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
2. WING BARRICADES SHOULD BE USED:
  - A. IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
  - B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.



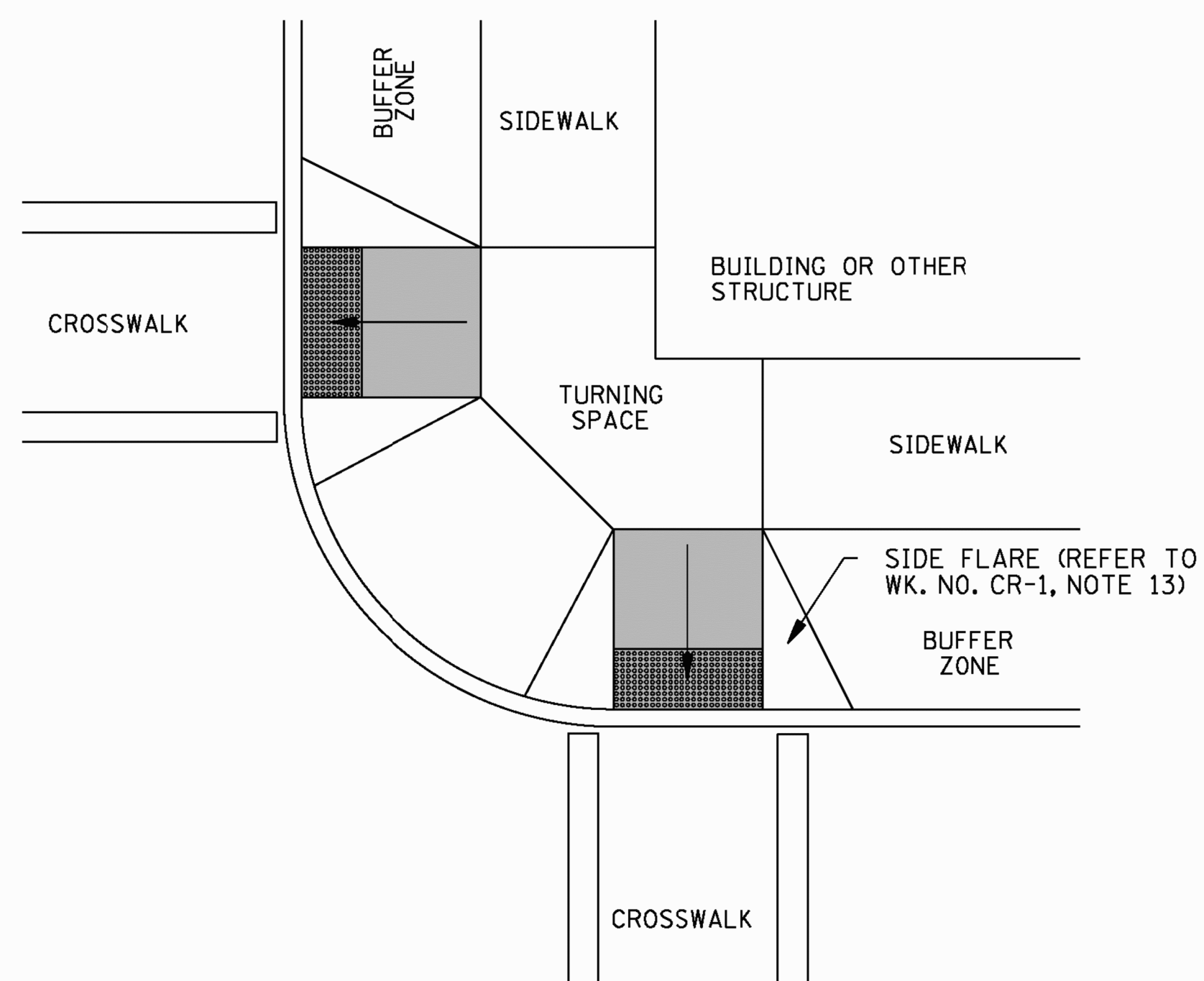
### PLASTIC DRUM STRIPING DETAIL

1. PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF DRUMS SHALL BE CONSISTENT WITH MARKING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON DRUMS SHALL BE ORANGE WITH FOUR (4) RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
2. DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
3. WHERE PRACTICAL PLASTIC DRUMS SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

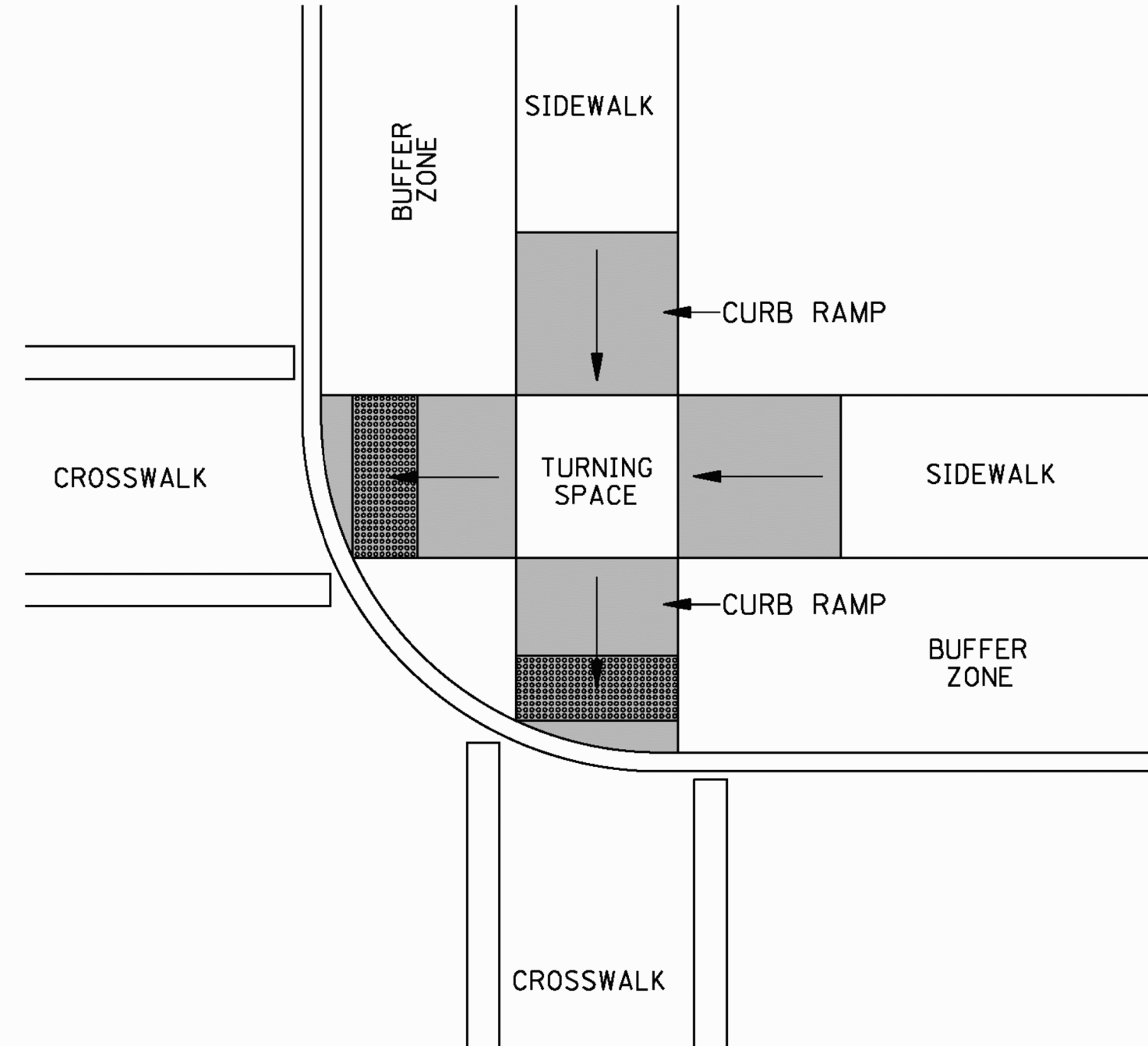
|  |  |  |          |                                                                                                                                                                             |                                                                                                                  |
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|  |  |  | BY       | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>ROADWAY DESIGN DIVISION<br>STANDARD PLAN<br><br><b>HIGHWAY SIGN AND<br/>BARRICADE DETAILS<br/>FOR CONSTRUCTION<br/>PROJECTS</b> | <br>WORKING NUMBER<br>TCP-8 |
|  |  |  | REVISION |                                                                                                                                                                             |                                                                                                                  |
|  |  |  | DATE     |                                                                                                                                                                             |                                                                                                                  |



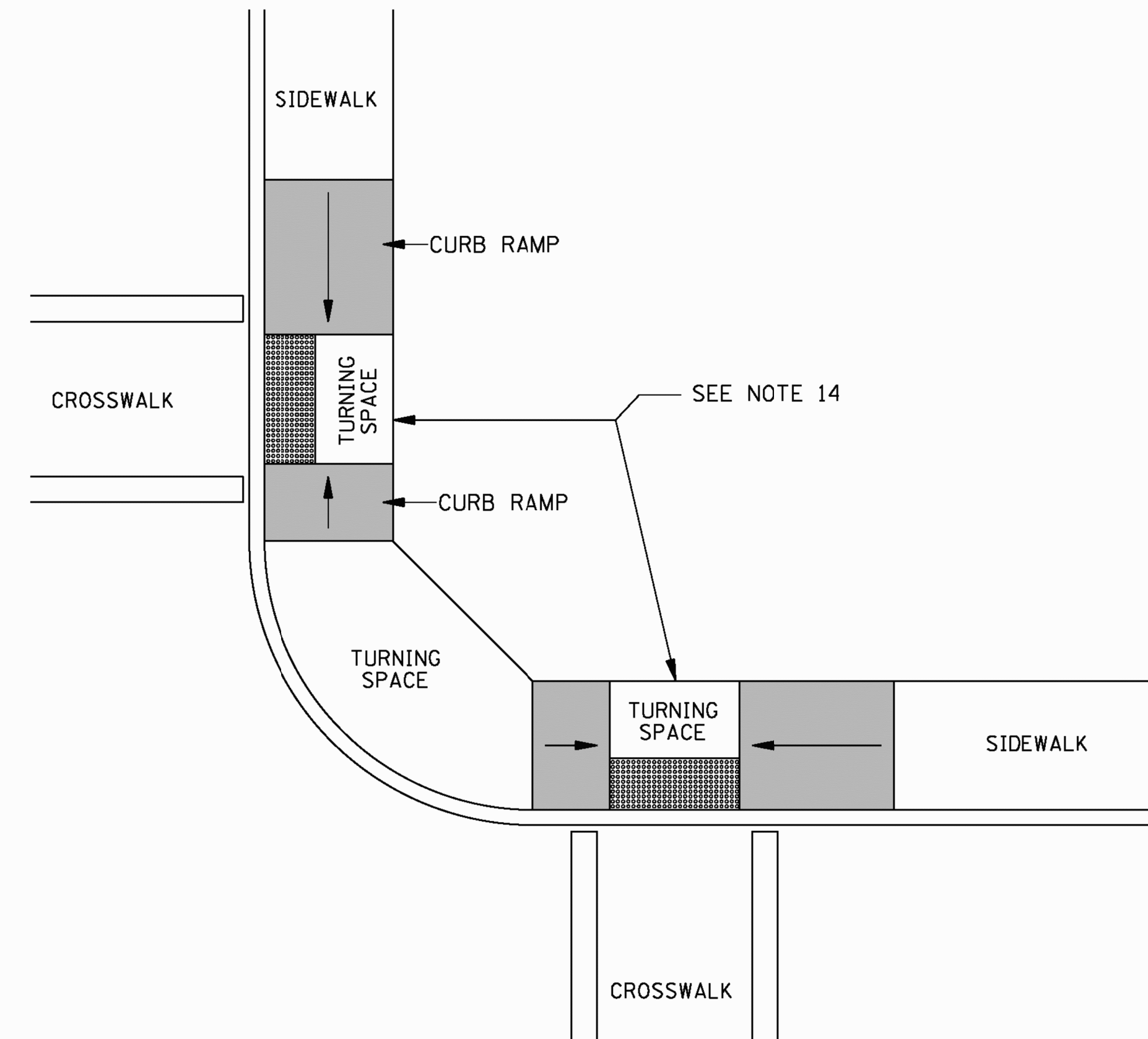
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| STATE | PROJECT NO. |
| MISS. |             |



**CURB RAMP CONFIGURATION: TYPE A**



**CURB RAMP CONFIGURATION: TYPE B**

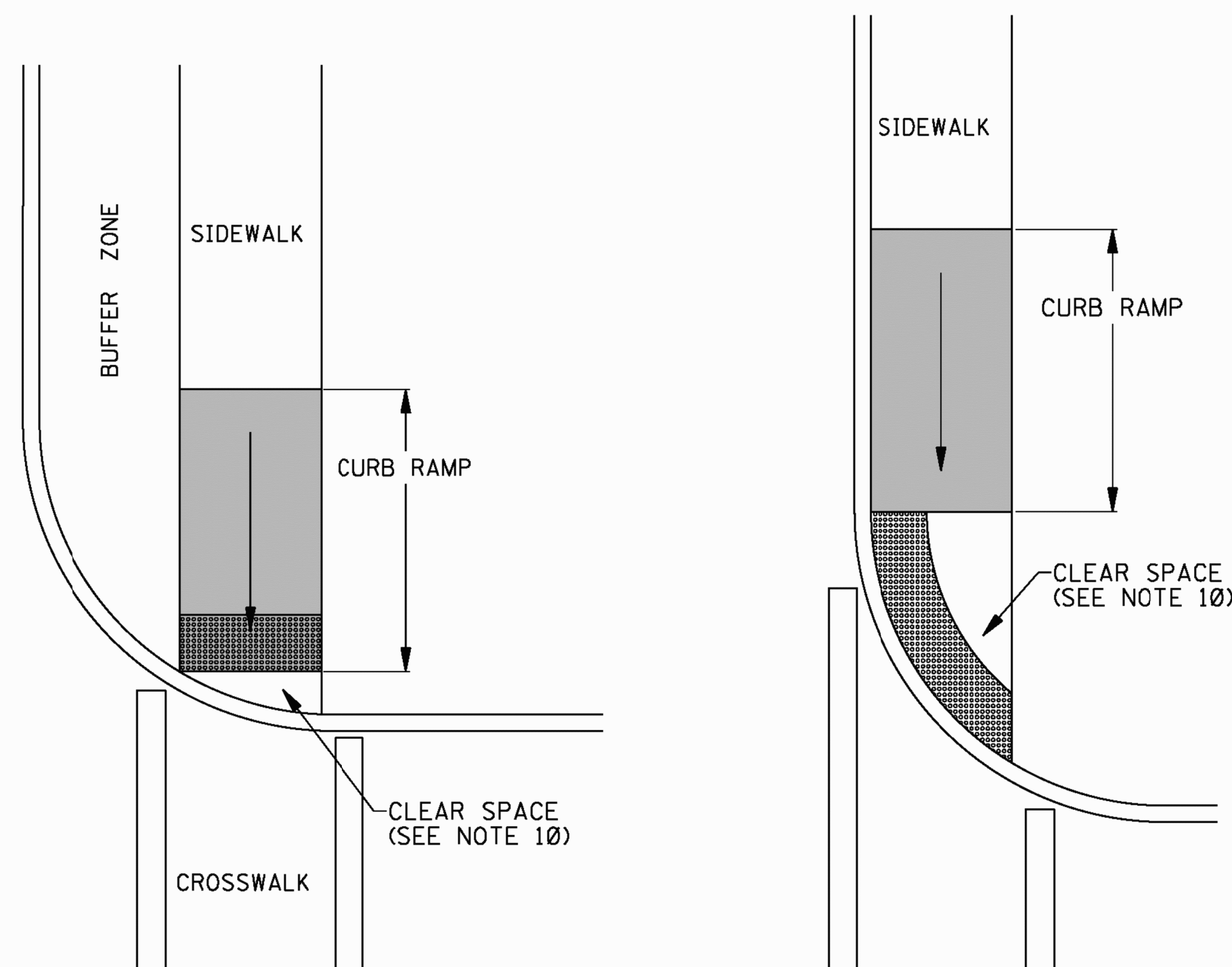


CURB RAMP CONFIGURATION: TYPE C

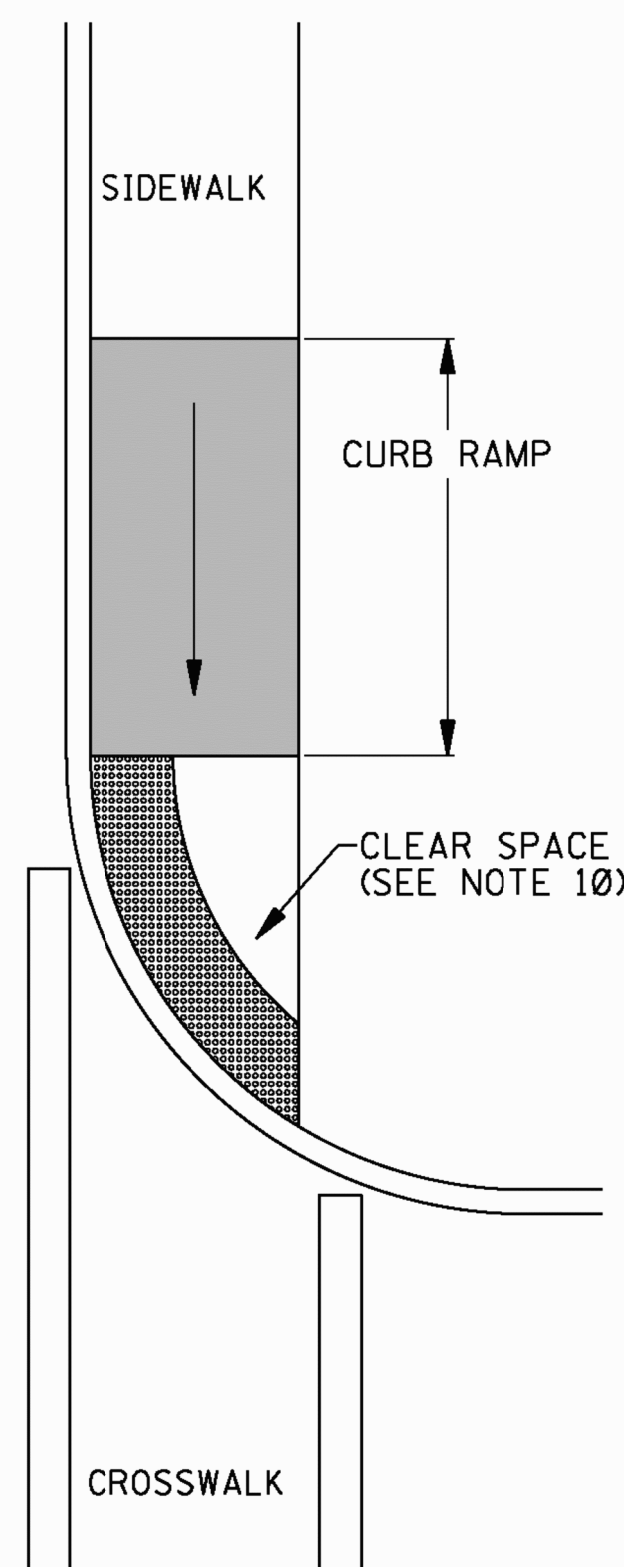
- GENERAL NOTES:

1. FOR DIMENSIONS & GEOMETRIC VALUES REFER TO WK. NO. CR-1.
2. THE CONFIGURATIONS SHOWN GENERICALLY REPRESENT THE MOST COMMON SITUATIONS ENCOUNTERED. THEY ARE INTENDED TO PRESENT CURB RAMP DESIGN CONCEPTS. SITE CONDITIONS AT INDIVIDUAL LOCATIONS REQUIRE SPECIFIC DESIGNS. CURB RAMP DESIGNS MUST BE CONSISTENT WITH THE PROVISIONS OF WK. NOS. CR-1, CR-2, CR-3 AND CR-4.
3. COORDINATE TRAFFIC CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS. GUIDANCE FOR CROSSWALK MARKINGS AND TRAFFIC CONTROL DEVICES IS PROVIDED IN THE MUTCD.
4. DETECTABLE WARNINGS SHOWN ON THIS SHEET ARE FOR ILLUSTRATION ONLY. FOR SPECIFIC PLACEMENT ORIENTATIONS AND DIMENSIONS REFER TO WK. NO. CR-4.
5. THE CROSS SLOPE OF CURB RAMPS, BLENDED TRANSITIONS, AND TURNING SPACES SHALL BE 2% MAXIMUM (1.5% PREFERRED). AT PEDESTRIAN STREET CROSSINGS WITHOUT YIELD OR STOP CONTROL AND AT MIDBLOCK PEDESTRIAN STREET CROSSINGS, THE CROSS SLOPE SHALL BE PERMITTED TO EQUAL THE STREET OR HIGHWAY GRADE.
6. DIAGONAL CURB RAMPS ARE UNACCEPTABLE IN NEW CONSTRUCTION. THEY MAY BE USED FOR ALTERATIONS ONLY IF IT IS THE ONLY OPTION THAT WILL WORK.
7. GRATES SHALL NOT BE LOCATED ON CURB RAMPS, BLENDED TRANSITIONS, TURNING SPACES, OR LANDINGS. ACCESS COVERS OF SIMILAR SURFACES SHALL COMPLY WITH APPLICABLE SURFACE REQUIREMENTS.
8. UTILITIES, SIGNS, AND OTHER FIXED OBJECTS SHALL NOT BE PLACED ON A CURB RAMP, PEDESTRIAN ACCESS ROUTE, OR IN A MANNER THAT INTERFERES WITH THE USE OF THE CURB RAMP.
9. THE SURFACE OF ALL CURB RAMPS SHALL BE STABLE, FIRM, AND SLIP RESISTANT. A COARSE BROOM FINISH RUNNING PERPENDICULAR TO THE SLOPE IS RECOMMENDED ON CONCRETE RAMP SURFACES; EXCLUSIVE OF THE DETECTABLE WARNING FIELDS.
10. THERE SHALL BE A CLEAR SPACE AT THE BOTTOM OF THE ALTERNATE PERPENDICULAR RETURNED CURB RAMP. IT SHALL SLOPE TO DRAIN RUNOFF TO STREET/GUTTER AND HAVE A MAXIMUM SLOPE OF 2% (1.5% PREFERRED).
11. TURNING SPACES MAY OVERLAP WITH ADJACENT TURNING SPACES OR A SINGLE TURNING SPACE MAY SERVE MULTIPLE CURB RAMPS.
12. TURNING SPACES MAY OVERLAP WITH THE CLEAR GROUND SPACE REQUIRED AT PEDESTRIAN SIGNAL PUSH BUTTONS.
13. THE CLEAR WIDTH OF PEDESTRIAN ACCESS ROUTES WITHIN MEDIANS AND PEDESTRIAN REFUGE ISLANDS SHALL BE 5' MINIMUM.
14. BEYOND THE BOTTOM GRADE BREAK, A TURNING SPACE OF 4' MINIMUM BY 4' MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE.

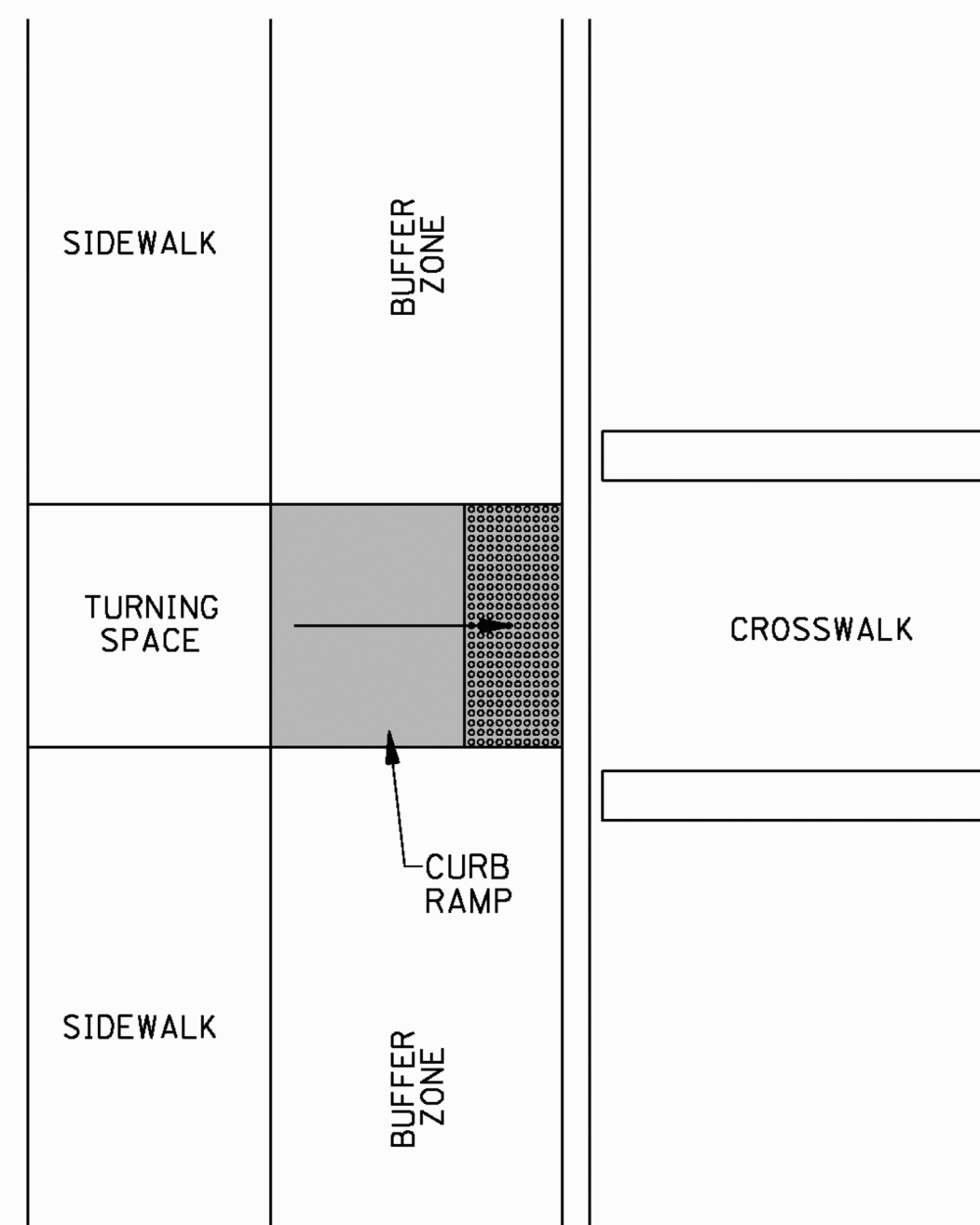
NOTE: SEE WK. NO. CR-4 FOR  
DETECTABLE WARNING DIMENSIONS  
AND PLACEMENT ORIENTATION.



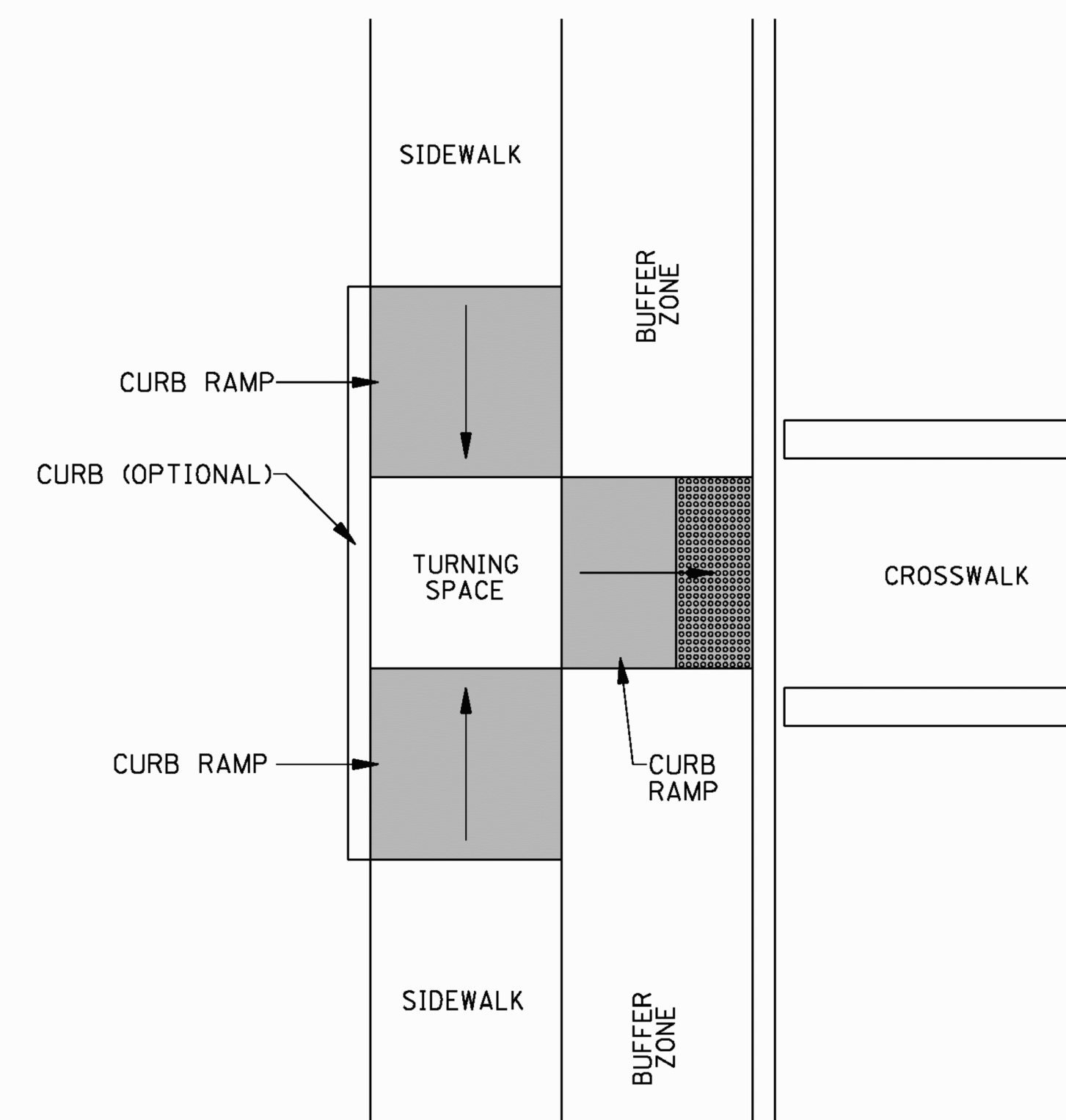
**CURB RAMP CONFIGURATION: TYPE D**



**CURB RAMP CONFIGURATION: TYPE E**



**CURB RAMP CONFIGURATION: TYPE F**



**CURB RAMP CONFIGURATION: TYPE G  
MID BLOCK CROSSING**

THE CURB BEHIND THE TURNING SPACE AND RAMPS IS NOT REQUIRED, BUT IS SUGGESTED FOR RETAINING SOIL AND PROVIDING AN EDGE FOR PEDESTRIANS WITH VISUAL IMPAIRMENTS.

|  |  |  |  |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--|--|--|--|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  |  | BY       | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>ROADWAY DESIGN DIVISION<br>STANDARD PLAN                                                                                                                                                                                                                                                                                                                                                                                                                  |
|  |  |  |  | REVISION |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|  |  |  |  |          | <p style="text-align: center;"><b><i>CURB RAMPS<br/>PLACEMENT DETAILS</i></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                     |
|  |  |  |  | DATE     | <div style="display: flex; justify-content: space-between; align-items: center;"> <div>  <p>MISSISSIPPI DEPARTMENT OF TRANSPORTATION</p> </div> <div> <p>WORKING NUMBER<br/>CR-2</p> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div> <p>ISSUE DATE: <u>          AUGUST 01, 2017          </u></p> </div> <div> <p>SHEET NUMBER<br/>6422</p> </div> </div> |



GENERAL NOTES:

1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING UNIT (THE DOMES AND THE ENTIRE 2' LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. ALL DETECTABLE WARNINGS SHOWN ON THIS SHEET SHALL BE PAID FOR - PER SQUARE FEET, UNLESS OTHERWISE NOTED IN THE PLANS.

DETECTABLE WARNING UNIT DIMENSIONS:

3. DETECTABLE WARNING SURFACES SHALL EXTEND 2' MINIMUM IN THE DIRECTION OF PEDESTRIAN TRAVEL. AT CURB RAMPS AND BLENDED TRANSITIONS, DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITION, OR TURNING SPACE. AT PEDESTRIAN AT-GRADE RAIL CROSSINGS NOT LOCATED WITHIN A STREET OR HIGHWAY, DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE CROSSING. AT BOARDING PLATFORMS FOR BUSES AND RAIL VEHICLES, DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL LENGTH OF THE PUBLIC USE AREAS OF THE PLATFORM. AT BOARDING AND ALIGHTING AREAS AT SIDEWALK OR STREET LEVEL TRANSIT STOPS FOR RAIL VEHICLES, DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL LENGTH OF THE TRANSIT STOP.

DOME ALIGNMENT:

4. THE ROWS OF DOMES SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK AT THE RAMP LANDING OR BETWEEN THE CURB RAMP AND THE STREET.
5. WHERE DOMES ARE ARRAYED RADially THEY MAY DIFFER IN DOME DIAMETER AND CENTER-TO-CENTER SPACING WITHIN THE RANGES SPECIFIED ON THIS SHEET.

**COLOR REQUIREMENTS:**

6. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT GUTTER, STREET OR HIGHWAY, OR PEDESTRIAN ACCESS ROUTE SURFACE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.

DETECTABLE WARNINGS LOCATIONS:

7. ON PERPENDICULAR CURB RAMPS, WHERE THE ENDS OF THE BOTTOM GRADE BREAK ARE IN FRONT OF THE BACK OF CURB, DETECTABLE WARNING SURFACES SHALL BE PLACED AT THE BACK OF CURB, WHERE THE ENDS OF THE BOTTOM GRADE BREAK ARE BEHIND THE BACK OF CURB AND THE DISTANCE FROM EITHER END OF THE BOTTOM GRADE BREAK TO THE BACK OF CURB IS 5' OR LESS, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE RAMP RUN WITHIN ONE DOME SPACING OF THE BOTTOM GRADE BREAK, WHERE THE ENDS OF THE BOTTOM GRADE BREAK ARE BEHIND THE BACK OF CURB AND THE DISTANCE FROM EITHER END OF THE BOTTOM GRADE BREAK TO THE BACK OF CURB IS MORE THAN 5', DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE LOWER LANDING AT THE BACK OF CURB.
8. ON PARALLEL CURB RAMPS, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE TURNING SPACE AT THE FLUSH TRANSITION BETWEEN THE STREET AND SIDEWALK.
9. ON BLENDED TRANSITIONS, DETECTABLE WARNING SURFACES SHALL BE PLACED AT THE BACK OF CURB, WHERE RAISED PEDESTRIAN STREET CROSSINGS, DEPRESSED CORNERS, OR OTHER LEVEL PEDESTRIAN STREET CROSSINGS ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED AT THE FLUSH TRANSITION BETWEEN THE STREET AND THE SIDEWALK.
10. AT CUT-THROUGH PEDESTRIAN REFUGE ISLANDS, DETECTABLE WARNING SURFACES SHALL BE PLACED AT THE EDGES OF THE PEDESTRIAN ISLAND AND SHALL BE SEPARATED BY A 2' MINIMUM LENGTH OF SURFACE WITHOUT DETECTABLE WARNINGS.
11. AT PEDESTRIAN AT-GRADE RAIL CROSSINGS NOT LOCATED WITHIN A STREET OR HIGHWAY, DETECTABLE WARNING SURFACES SHALL BE PLACED ON EACH SIDE OF THE RAIL CROSSING. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE RAIL CROSSING SHALL BE 6' MINIMUM AND 15' MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL. WHERE PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL.
12. AT BOARDING PLATFORMS FOR BUSES AND RAIL VEHICLES, DETECTABLE WARNING SURFACES SHALL BE PLACED AT THE BOARDING EDGE OF THE PLATFORM.
13. AT BOARDING AND ALIGHTING AREAS AT SIDEWALK OR STREET LEVEL TRANSIT STOPS FOR RAIL VEHICLES, DETECTABLE WARNING SURFACES SHALL BE PLACED AT THE SIDE OF THE BOARDING AND ALIGHTING AREA FACING THE RAIL VEHICLES.

[illegible]

NOTE: IF THE DISTANCE FROM THE GRADE BREAK IS  
GREATER THAN OR EQUAL TO 5', DETECTABLE WARNINGS  
SHALL BE PLACED ALONG THE RADIUS OF THE CURVE AS  
SHOWN IN THE ABOVE DETAIL.



NOTE: IF THE DISTANCE FROM THE GRADE BREAK IS LESS THAN OR EQUAL TO 5', DETECTABLE WARNINGS SHALL BE PLACED ON THE CURB RAMP ALONG THE BOTTOM GRADE BREAK WITH ONE CORNER 5" TO 9" FROM THE FRONT OF THE CURB OR EDGE OF THE ROADWAY.



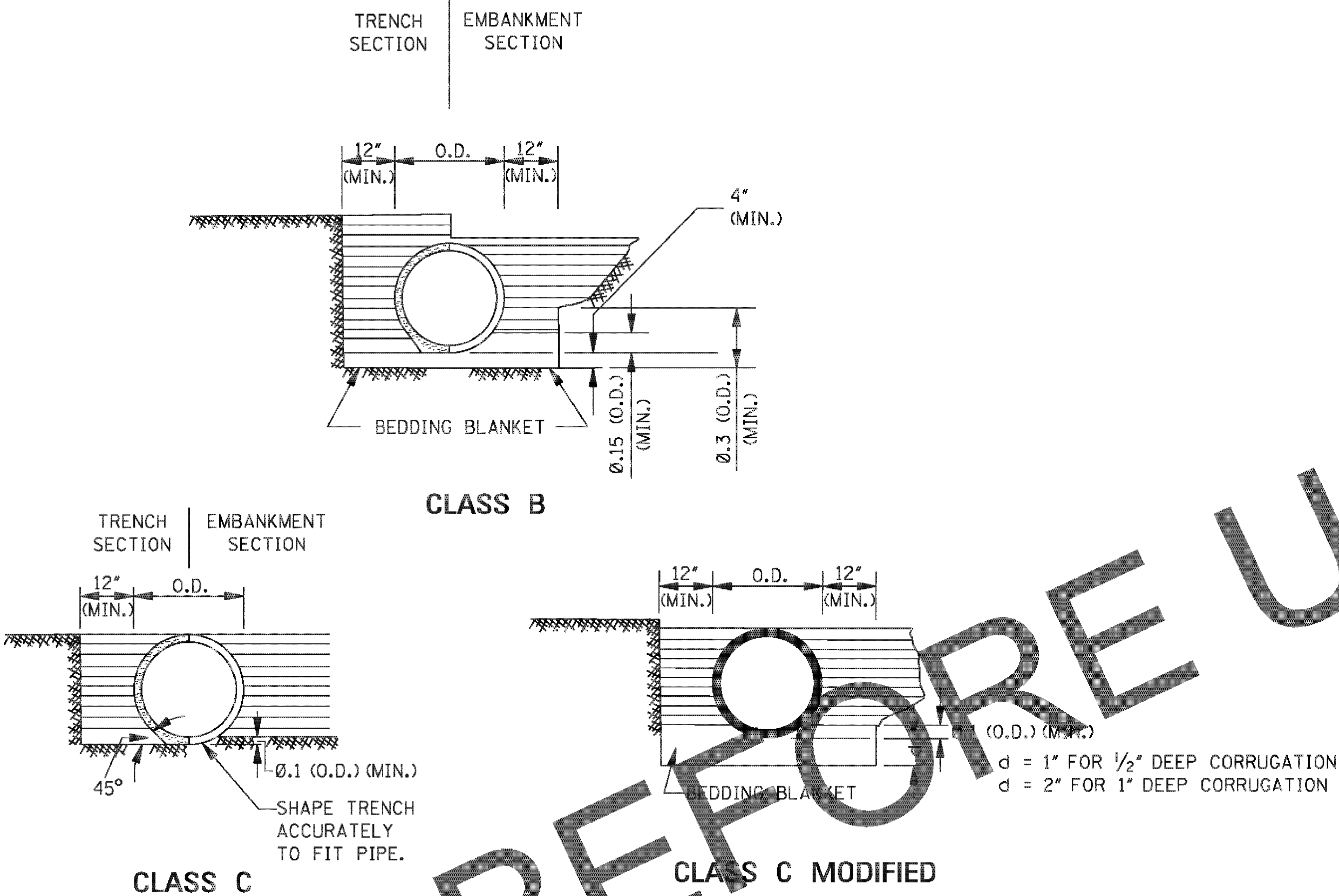
### NON-ELEVATED CROSSING





| CORRUGATED STEEL AND ALUMINUM PIPE (ROUND) |                                                        |                                              |                                       |                                                   |                                       |                                                 |
|--------------------------------------------|--------------------------------------------------------|----------------------------------------------|---------------------------------------|---------------------------------------------------|---------------------------------------|-------------------------------------------------|
| PIPE DIAMETER (in)                         | MINIMUM COVER FROM TOP OF PIPE TO TOP OF SUBGRADE (in) | MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft)   |                                       |                                                   |                                       |                                                 |
|                                            |                                                        | SHEET THICKNESS (in)                         |                                       |                                                   |                                       |                                                 |
|                                            |                                                        | 0.064 STEEL<br>0.060 ALUM.<br>16 GAGE        | 0.079 STEEL<br>0.075 ALUM.<br>14 GAGE | 0.109 STEEL<br>0.105 ALUM.<br>12 GAGE             | 0.138 STEEL<br>0.135 ALUM.<br>10 GAGE | 0.168 STEEL<br>0.164 ALUM.<br>8 GAGE            |
|                                            |                                                        | 2 3/8" X 1/2"<br>CORRUGATED STEEL<br>HELICAL |                                       | 3" X 1" OR 5" X 1"<br>CORRUGATED STEEL<br>HELICAL |                                       | 2 3/8" X 1/2"<br>CORRUGATED ALUMINUM<br>HELICAL |
| 12"                                        | 12"                                                    | 207' / - / 125'                              | 259' / - / 157'                       | - / - / -                                         | - / - / -                             | - / - / -                                       |
| 15"                                        | 12"                                                    | 165' / - / 100'                              | 207' / - / 125'                       | - / - / -                                         | - / - / -                             | - / - / -                                       |
| 18"                                        | 12"                                                    | 138' / - / 83'                               | 172' / - / 104'                       | 242' / - / -                                      | - / - / -                             | - / - / -                                       |
| 24"                                        | 12"                                                    | 103' / - / 62'                               | 129' / - / 78'                        | 181' / - / 109'                                   | - / - / -                             | - / - / -                                       |
| 30"                                        | 12"                                                    | 82' / - / -                                  | 103' / - / 69'                        | 145' / - / 97'                                    | - / - / -                             | - / - / -                                       |
| 36"                                        | 12"                                                    | 68' / - / -                                  | 86' / - / 62'                         | 120' / - / 87'                                    | 155' / - / 94'                        | - / - / -                                       |
| 42"                                        | 12"                                                    | 58' / - / -                                  | 73' / - / 51'                         | 103' / - / 73'                                    | 133' / - / 80'                        | 163' / - / -                                    |
| 48"                                        | 12"                                                    | 51' / - / -                                  | 64' / - / -                           | 90' / - / 62'                                     | 116' / - / 70'                        | 142' / - / 85'                                  |
| 54"                                        | 12"                                                    | - / 46' / -                                  | 57' / 58' / -                         | 80' / 82' / 54'                                   | 103' / 106' / 62'                     | 126' / 129' / 76'                               |
| 60"                                        | 12"                                                    | - / 42' / -                                  | - / 52' / -                           | 72' / 74' / 48'                                   | 93' / 95' / 52'                       | 114' / 116' / 64'                               |
| 66"                                        | 12"                                                    | - / 38' / -                                  | - / 47' / -                           | - / 66' / -                                       | 84' / 86' / -                         | 103' / 106' / 52'                               |
| 72"                                        | 12"                                                    | - / 35' / -                                  | - / 43' / -                           | - / 61' / -                                       | 77' / 79' / -                         | 94' / 97' / 43'                                 |
| 78"                                        | 12"                                                    | - / 32' / -                                  | - / 40' / -                           | - / 56' / -                                       | - / 73' / -                           | 84' / 89' / -                                   |
| 84"                                        | 12"                                                    | - / 29' / -                                  | - / 37' / -                           | - / 52' / -                                       | - / 68' / -                           | 72' / 83' / -                                   |
| 90"                                        | 12"                                                    | - / 27' / -                                  | - / 34' / -                           | - / 49' / -                                       | - / 63' / -                           | - / 77' / -                                     |
| 96"                                        | 12"                                                    | - / - / -                                    | - / 32' / -                           | - / 46' / -                                       | - / 59' / -                           | - / 72' / -                                     |
| 102"                                       | 24"                                                    | - / - / -                                    | - / 30' / -                           | - / 43' / -                                       | - / 55' / -                           | - / 68' / -                                     |
| 108"                                       | 24"                                                    | - / - / -                                    | - / - / -                             | - / 40' / -                                       | - / 52' / -                           | - / 64' / -                                     |
| 114"                                       | 24"                                                    | - / - / -                                    | - / - / -                             | - / 38' / -                                       | - / 50' / -                           | - / 61' / -                                     |
| 120"                                       | 24"                                                    | - / - / -                                    | - / - / -                             | - / 36' / -                                       | - / 47' / -                           | - / 58' / -                                     |

NOTE: THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR 1/2", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS (AASHTO M 36M/M 36 & AASHTO M 196M/M 196).



| MAXIMUM HEIGHT OF FILL OVER REINFORCED CONCRETE PIPE |                    |                   |
|------------------------------------------------------|--------------------|-------------------|
| CLASS OF PIPE                                        | MAXIMUM COVER (ft) |                   |
|                                                      | CLASS "C" BEDDING  | CLASS "B" BEDDING |
| III                                                  | 12'                | 19'               |
| IV                                                   | 18'                | 30'               |
| V                                                    | 28'                | 48'               |
| SPECIAL DESIGN                                       | >28'               | >48'              |

NOTE: CLASSES OF PIPE AND BEDDING TO BE CONSISTENT THROUGHOUT THE PIPE LENGTH.

| CORRUGATED METAL PIPE ARCHES |                                   |               |                                 |                                                                                                 |                                              |
|------------------------------|-----------------------------------|---------------|---------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------|
| EQUIV. DIAMETER (in)         | PIPE DIMENSION (SPAN X RISE) (in) | MINIMUM COVER | STEEL                           |                                                                                                 | ALUMINUM                                     |
|                              |                                   |               | MINIMUM THICKNESS REQUIRED (in) | MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (ft) FOR THE FOLLOWING CORNER BEARING PRESSURE (tons/ft²) | MINIMUM THICKNESS REQUIRED (in)              |
|                              |                                   |               |                                 | † 4 tons/ft²                                                                                    |                                              |
|                              |                                   |               |                                 | 2 3/8" X 1/2" CORRUGATION HELICAL                                                               | 2 3/8" X 1/2" CORRUGATION RIVETED OR HELICAL |
| 15"                          | 17" X 13"                         | 12"           | 0.064"                          | 13'                                                                                             | 0.064"                                       |
| 18"                          | 21" X 15"                         | 12"           | 0.064"                          | 12'                                                                                             | 0.064"                                       |
| 24"                          | 28" X 20"                         | 12"           | 0.064"                          | 12'                                                                                             | 0.075"                                       |
| 30"                          | 35" X 24"                         | 12"           | 0.064"                          | 12'                                                                                             | 0.075"                                       |
| 36"                          | 42" X 29"                         | 12"           | 0.064"                          | 12'                                                                                             | 0.105"                                       |
| 42"                          | 49" X 33"                         | 12"           | 0.079"                          | 12'                                                                                             | 0.105"                                       |
| 48"                          | 57" X 38"                         | 12"           | 0.109"                          | 12'                                                                                             | 0.135"                                       |
| 54"                          | 64" X 43"                         | 12"           | 0.109"                          | 12'                                                                                             | 0.135"                                       |
| 60"                          | 71" X 47"                         | 12"           | 0.138"                          | 12'                                                                                             | 0.164"                                       |
| 66"                          | 77" X 52"                         | 12"           | 0.168"                          | 12'                                                                                             |                                              |
| 72"                          | 83" X 57"                         | 12"           | 0.168"                          | 12'                                                                                             |                                              |
|                              |                                   |               |                                 | 3" X 1" CORRUGATION HELICAL                                                                     | 5" X 1" CORRUGATION HELICAL                  |
| 48"                          | 53" X 41"                         | 12"           | 0.079"                          | -                                                                                               | 12' / -                                      |
| 54"                          | 60" X 46"                         | 12"           | 0.079"                          | -                                                                                               | 20' / -                                      |
| 60"                          | 66" X 51"                         | 12"           | 0.079"                          | -                                                                                               | 20' / -                                      |
| 66"                          | 73" X 55"                         | 12"           | 0.079"                          | -                                                                                               | 20' / -                                      |
| 72"                          | 81" X 59"                         | 12"           | 0.079" / 0.109"                 | 17' / 17'                                                                                       |                                              |
| 78"                          | 87" X 63"                         | 12"           | 0.079" / 0.109"                 | 16' / 16'                                                                                       |                                              |
| 84"                          | 95" X 67"                         | 12"           | 0.079" / 0.109"                 | 16' / 16'                                                                                       |                                              |
| 90"                          | 103" X 71"                        | 12"           | 0.109" / 0.109"                 | 16' / 16'                                                                                       |                                              |
| 96"                          | 112" X 75"                        | 12"           | 0.109" / 0.109"                 | 16' / 16'                                                                                       |                                              |
| 102"                         | 117" X 79"                        | 12"           | 0.109" / 0.109"                 | 16' / 16'                                                                                       |                                              |
| 108"                         | 128" X 83"                        | 12"           | 0.138" / 0.138"                 | 16' / 16'                                                                                       |                                              |
| 114"                         | 137" X 87"                        | 12"           | 0.138" / 0.138"                 | 16' / 16'                                                                                       |                                              |
| 120"                         | 142" X 91"                        | 12"           | 0.168" / 0.168"                 | 16' / 16'                                                                                       |                                              |

NOTES:  
1. THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR 1/2", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS. (AASHTO M 36M/M 36 & AASHTO M 196M/M 196).

† 2. BEARING PRESSURES FOR GIVEN FILL HEIGHT SHALL HAVE FOUNDATION MATERIALS INVESTIGATED TO DETERMINE BEARING CAPACITY.

- GENERAL NOTES:
1. MINIMUM SPACING BETWEEN MULTIPLE LINES OF PARALLEL PIPE SHALL BE THE DISTANCE REQUIRED FOR INSTALLING THE ADJACENT FLARED END SECTIONS OR AS SHOWN ON THE HEADWALL DRAWINGS FOR CONDUITS REQUIRING HEADWALLS.
  2. UNLESS OTHERWISE INDICATED, THE TOP OF THE PIPE SHALL BE BELOW THE TOP OF THE SUBGRADE, AND A MINIMUM OF 12" OF COVER OVER THE TOP OF THE PIPE SHALL BE MAINTAINED BETWEEN THE SHOULDER LINES.
  3. WHERE PRE-BED PIPE IS INSTALLED, FLARED END SECTIONS FROM OTHER MANUFACTURERS MAY BE JOINED TO PRE-BED PIPE PROVIDED A CONCRETE COLLAR IS PLACED AT THE CONTRACTOR'S EXPENSE AND A DEFORMATION TO THE PIPE'S FLOWLINE IS NOT EVIDENT ON FINAL PLACEMENT.
  4. THE BACKFILL SHALL BE EITHER CLASS "B", CLASS "C", OR CLASS "C" MODIFIED. A MINIMUM COMPACTION LEVEL OF 95% STANDARD PROCTOR DENSITY PER AASHTO T99 SHALL BE ACHIEVED BY USE OF VIBRATORY PLATE, HYDROHAMMER TYPE COMPACTORS SHALL NOT BE USED OVER THE PIPE. ALL COMPACTION EQUIPMENT USED SHALL BE APPROVED BY THE ENGINEER.

|  |  |  |  |          |                                                                                      |
|--|--|--|--|----------|--------------------------------------------------------------------------------------|
|  |  |  |  | BY       | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>ROADWAY DESIGN DIVISION<br>STANDARD PLAN |
|  |  |  |  | REVISION |                                                                                      |
|  |  |  |  | DATE     | ISSUE DATE: AUGUST 01, 2017                                                          |
|  |  |  |  |          |                                                                                      |

PIPE CULVERT  
INSTALLATION

WORKING NUMBER  
PI-1

SHEET NUMBER  
6501



STANDARD INSTALLATION DETAIL

TABLE 1: BEDDING AND BACKFILL REQUIREMENTS

|                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BEDDING AND BACKFILL REQUIREMENTS FOR NON-RIGID PIPE IN CROSS DRAIN AND STORM DRAIN APPLICATIONS                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                      |
| A.                                                                                                                                                                                                                                                                                                                                                   | BEDDING SHALL BE CLASS B IN ACCORDANCE WITH THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.                                                                                                                                                                                                |
| B.                                                                                                                                                                                                                                                                                                                                                   | BACKFILL MATERIAL SHALL BE ONE OF THE FOLLOWING:<br>1. FLOWABLE FILL IN ACCORDANCE WITH THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION.<br>2. CRUSHED STONE AGGREGATE BACKFILL IN ACCORDANCE WITH THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. |
| IF FLOWABLE FILL IS UTILIZED, CARE SHALL BE TAKEN TO PREVENT "FLOATING" OF THE PIPE.<br>THE COST OF FURNISHING AND PLACING THE REQUIRED BEDDING AND BACKFILL MATERIAL INDICATED IN A AND B SHALL BE INCLUDED IN THE UNIT COST OF THE NON-RIGID PIPE ALTERNATE, I.E., THERE IS NO SEPARATE PAY ITEM FOR NON-RIGID PIPE BEDDING AND BACKFILL MATERIAL. |                                                                                                                                                                                                                                                                                                                                      |
| BEDDING AND BACKFILL REQUIREMENTS FOR NON-RIGID PIPE IN SIDE DRAIN APPLICATIONS                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                      |
| A.                                                                                                                                                                                                                                                                                                                                                   | BEDDING SHALL BE CLASS C IN ACCORDANCE WITH THE MISSISSIPPI SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.                                                                                                                                                                                                         |
| B.                                                                                                                                                                                                                                                                                                                                                   | BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH THE MISSISSIPPI SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. PIPES THAT SERVE AS A SIDE DRAIN ON DEPARTMENT RIGHT OF WAY, BUT CARRY DRAINAGE UNDER A COUNTY OR LOCAL ROAD SHALL ADHERE TO THE BEDDING AND BACKFILL REQUIREMENTS FOR A CROSS DRAIN CONTAINED ABOVE. |
| THE COST OF FURNISHING AND PLACING THE REQUIRED BEDDING AND BACKFILL MATERIAL INDICATED IN A AND B SHALL BE INCLUDED IN THE UNIT COST OF THE NON-RIGID ALTERNATE PIPE, I.E., THERE IS NO SEPARATE PAY ITEM FOR NON-RIGID BEDDING AND BACKFILL MATERIAL.                                                                                              |                                                                                                                                                                                                                                                                                                                                      |

TABLE 2:  
HIGH DENSITY CORRUGATED POLYETHYLENE PIPE  
HEIGHT OF COVER

| NOMINAL DIAMETER<br>IN. | MINIMUM COVER<br>IN. | MAXIMUM COVER - FT. |            |
|-------------------------|----------------------|---------------------|------------|
|                         |                      | CROSS DRAIN         | SIDE DRAIN |
| 12                      | 12                   | 38                  | 11         |
| 15                      | 12                   | 36                  | 12         |
| 18                      | 12                   | 35                  | 11         |
| 24                      | 12                   | 30                  | 10         |
| 30                      | 12                   | 25                  | 9          |
| 36                      | 21                   | 29                  | 10         |
| 42                      | 21                   | 27                  | 9          |
| 48                      | 21                   | 25                  | 8          |

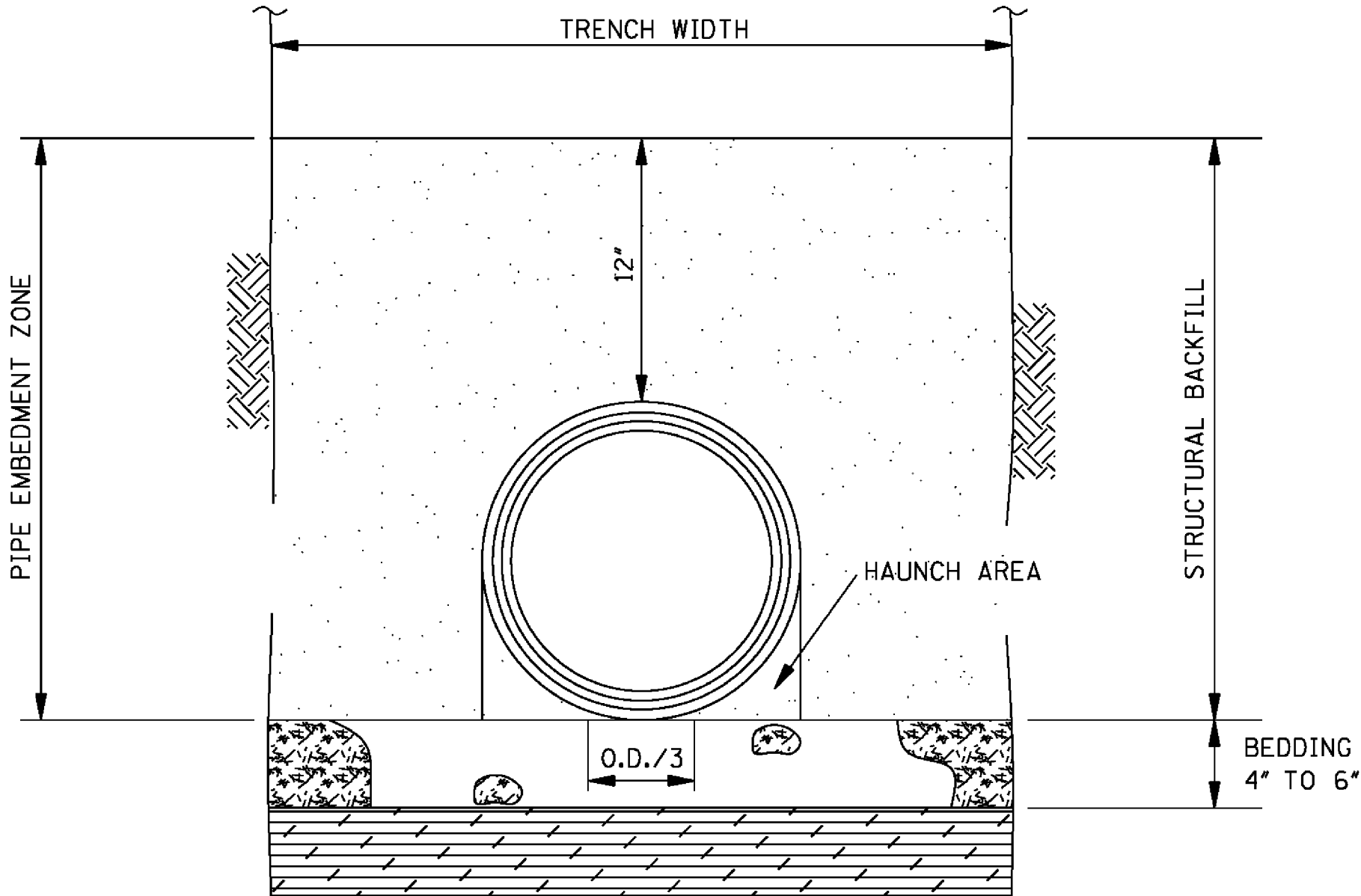
TABLE 3: RECOMMENDED TRENCH WIDTH

| DIAMETER<br>IN. | O.D.<br>IN. | TRENCH WIDTH<br>IN. |
|-----------------|-------------|---------------------|
| 12              | 14.45       | 34                  |
| 15              | 17.57       | 38                  |
| 18              | 21.20       | 44                  |
| 24              | 27.80       | 54                  |
| 30              | 35.10       | 65                  |
| 36              | 41.70       | 75                  |
| 42              | 47.70       | 84                  |
| 48              | 53.60       | 92                  |

THE TRENCH WIDTH MUST BE WIDE ENOUGH TO  
ACCOMODATE COMPACTION EQUIPMENT

TABLE 4: MULTIPLE INSTALLATION OF  
POLYETHYLENE PIPES

| DIAMETER OF PIPE<br>IN. | CLEAR DISTANCE<br>BETWEEN PIPES<br>FT.-IN. |
|-------------------------|--------------------------------------------|
| 18                      | 1'-2"                                      |
| 24                      | 1'-5"                                      |
| 30                      | 1'-8"                                      |
| 36                      | 1'-11"                                     |
| 42                      | 2'-2"                                      |
| 48                      | 2'-5"                                      |



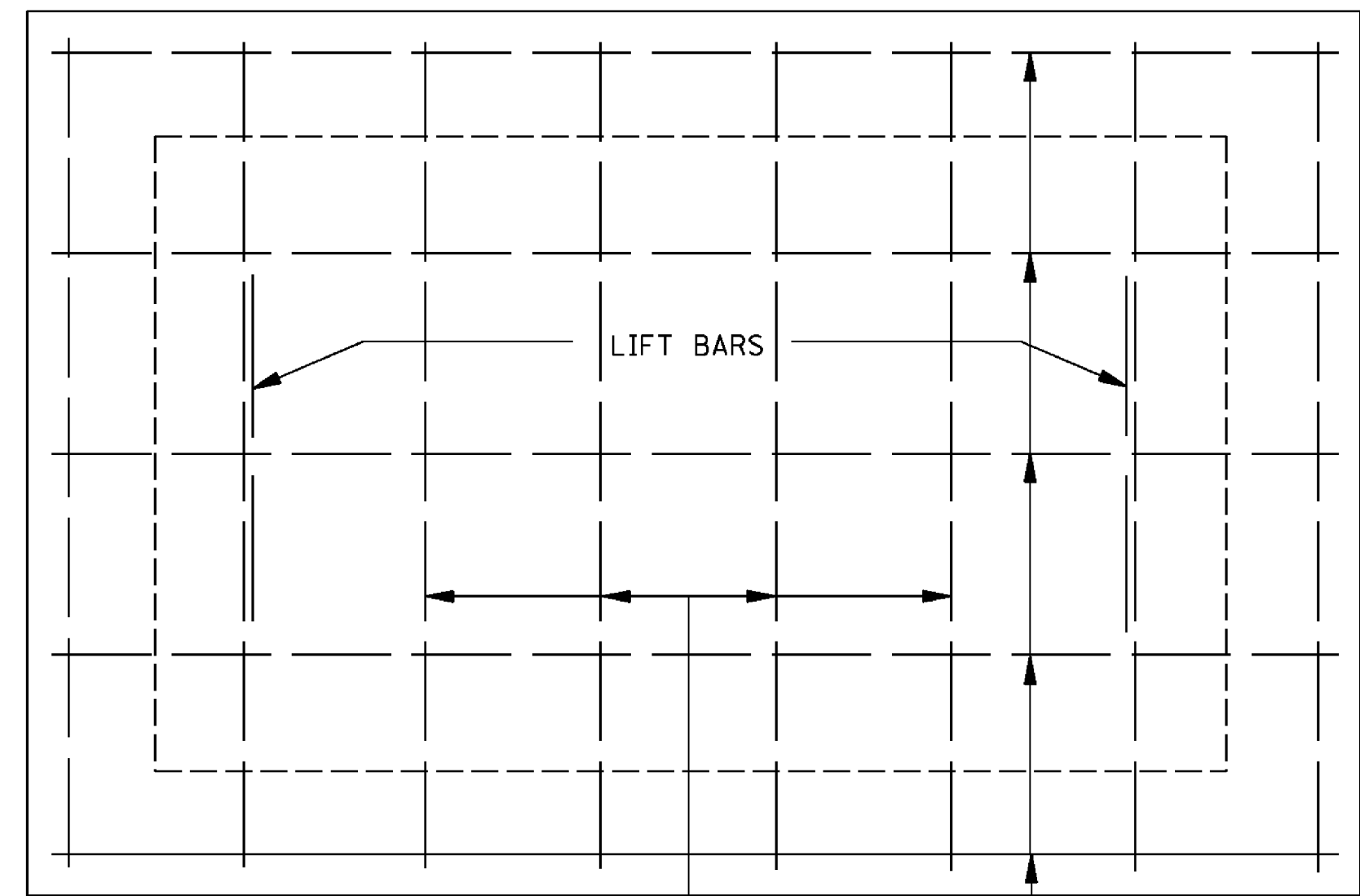
TRENCH CROSS SECTION SHOWING TERMINOLOGY

GENERAL NOTES:

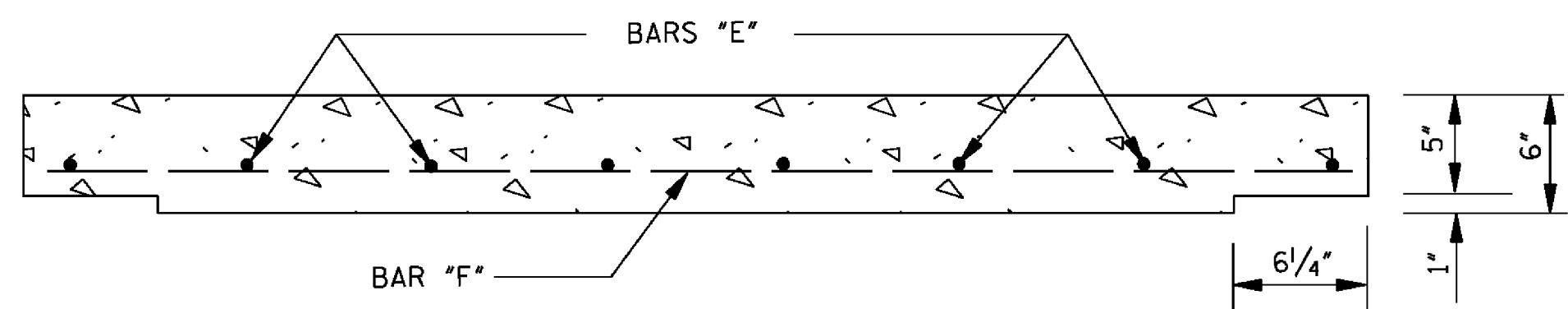
- MATERIALS  
THERMOPLASTIC PIPE  
POLYETHYLENE PIPE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 294, LATEST EDITION.  
DESIGNATION OF TYPE: TYPE S: THIS PIPE WILL HAVE A FULL CIRCULAR CROSS SECTION WITH AN OUTER CORRUGATED PIPE WALL AND A SMOOTH INNER LINER.  
BEDDING MATERIAL AND STRUCTURAL BACKFILL  
BEDDING MATERIAL AND STRUCTURAL BACKFILL SHALL MEET THE REQUIREMENTS OF TABLE 1.
- JOINTS  
JOINTS FOR THERMOPLASTIC PIPE SHALL MEET THE PERFORMANCE REQUIREMENTS OF SOILTIGHTNESS UNLESS WATERTIGHTNESS IS SPECIFIED.  
SUITABLE JOINTS CAN BE OBTAINED WITH THE FOLLOWING TYPES OF CONNECTIONS:  
A) CORRUGATED BANDS (WITH OR WITHOUT GASKETS)  
B) BELL AND SPIGOT PIPE ENDS (WITH OF WITHOUT GASKETS)  
C) DOUBLE BELL COUPLINGS (WITH OR WITHOUT GASKETS)
- INSTALLATION  
MINIMUM TRENCH WIDTHS SHALL MEET THE REQUIREMENTS OF TABLE 3.  
THE MIDDLE THIRD OF THE BEDDING MATERIAL UNDER THE PIPE SHOULD BE LOOSELY PLACED, WHILE THE REMAINDER SHALL BE COMPACTED TO A MINIMUM 90% OF MAXIMUM DENSITY PER AASHTO T 99.  
A MINIMUM OF 4 INCHES OF BEDDING SHALL BE PROVIDED PRIOR TO PLACEMENT OF THE PIPE.  
STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING AN 8" LOOSE LIFT THICKNESS AND BROUGHT UP EVENLY ON BOTH SIDES OF THE PIPE WITH AN ELEVATION NOT LESS THAN 12 INCHES ABOVE THE TOP OF THE PIPE. A MINIMUM COMPACTION LEVEL OF 90% STANDARD DENSITY PER AASHTO T 99 SHALL BE ACHIEVED.  
MINIMUM COVER REQUIREMENTS SHALL MEET THE REQUIREMENTS OF TABLE 2.  
FOR MULTIPLE INSTALLATIONS OF POLYETHYLENE PIPES, A CLEAR DISTANCE BETWEEN THE PIPES SHALL MEET THE REQUIREMENTS OF TABLE 4.
- CALCULATIONS FOR FILL DEPTHS ARE BASED ON PROPERTIES DEFINED IN AASHTO M294 AND CALCULATIONS IN AASHTO SEC. 19.

|                             |  |  |  |          |                                                                                                                                         |
|-----------------------------|--|--|--|----------|-----------------------------------------------------------------------------------------------------------------------------------------|
|                             |  |  |  | BY       | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>ROADWAY DESIGN DIVISION<br>STANDARD PLAN                                                    |
|                             |  |  |  | REVISION |                                                                                                                                         |
|                             |  |  |  | DATE     |                                                                                                                                         |
| ISSUE DATE: AUGUST 01, 2017 |  |  |  |          |                                                                                                                                         |
|                             |  |  |  |          | <b>FLEXIBLE PIPE CULVERT<br/>INSTALLATION</b>                                                                                           |
|                             |  |  |  |          | <br>WORKING NUMBER<br>PI-2<br>SHEET NUMBER<br>6502 |

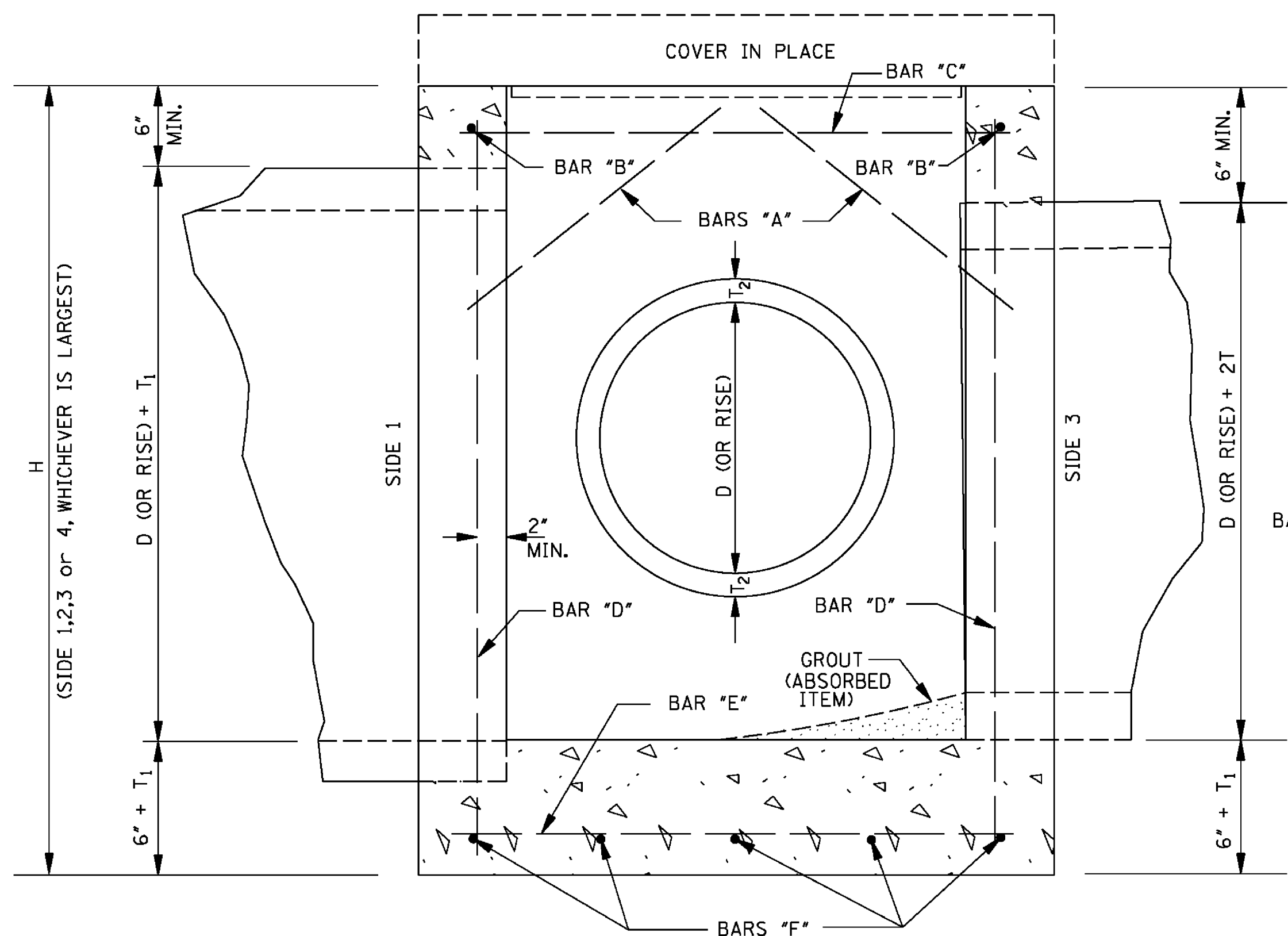




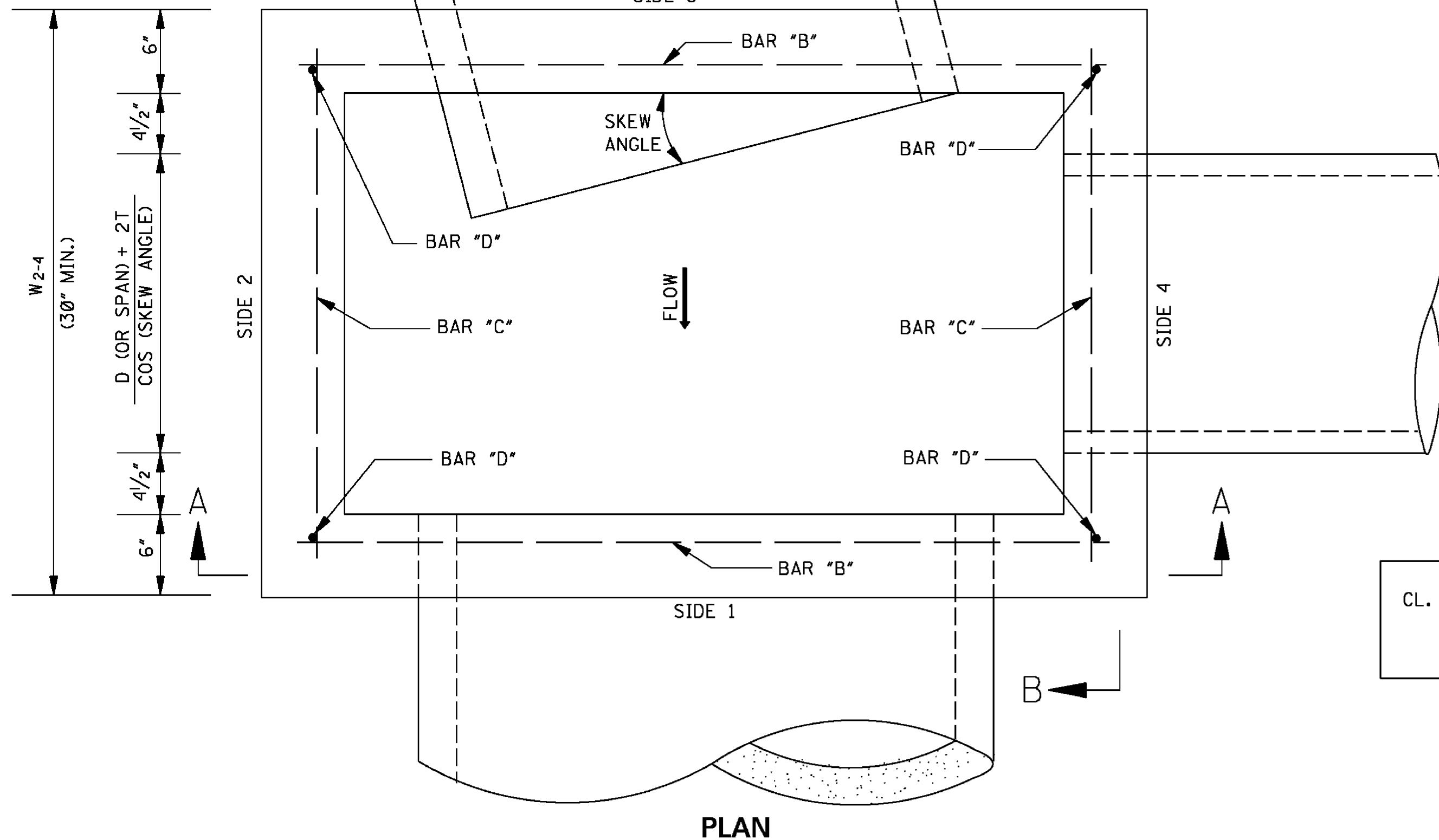
PLAN OF COVER



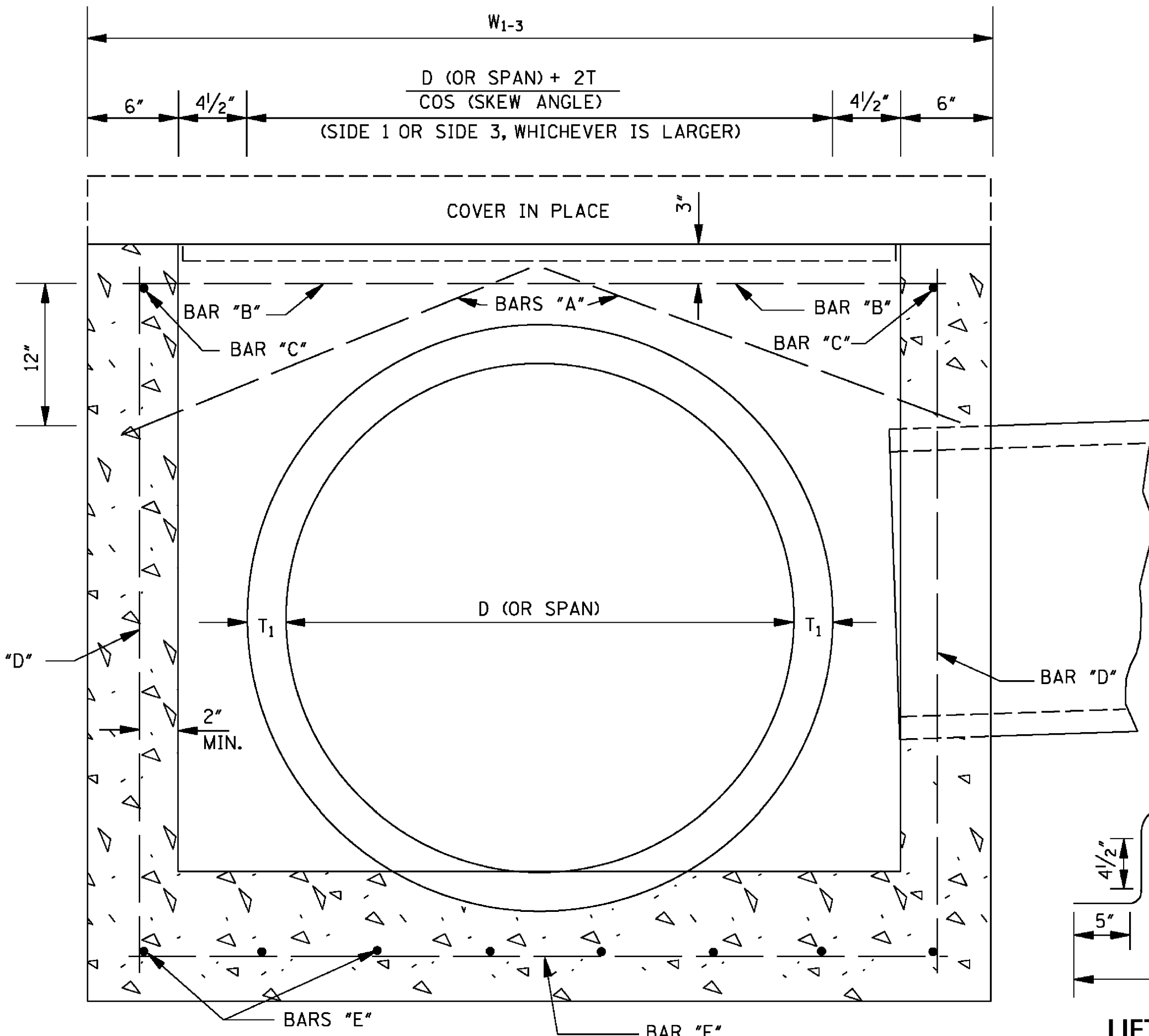
ELEVATION OF COVER



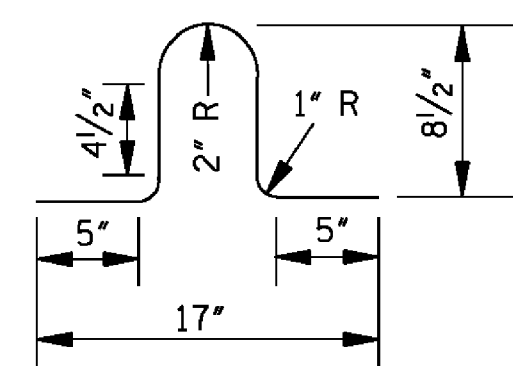
SECTION B-B



PLAN



SECTION A-A



LIFT BAR

NOTE: LIFT BAR TO BE FABRICATED FROM A #4 BAR 30" LONG. TWO LIFT BARS ARE REQUIRED. REINFORCING STEEL FOR 2 LIFT BARS = 3.3 lbs.

REINFORCING BAR LIST

| BAR | SIZE | NUMBER REQUIRED                                             | LENGTH                                          |
|-----|------|-------------------------------------------------------------|-------------------------------------------------|
| A   | #4   | 2 PER PIPE OPENING                                          | $\sqrt{196 + \left(\frac{W^*}{2} + 2\right)^2}$ |
| B   | #4   | 2                                                           | $W_{1-3} - 6"$                                  |
| C   | #4   | 2                                                           | $W_{2-4} - 6"$                                  |
| D   | #4   | 4                                                           | $H - 6"$                                        |
| E   | #4   | $2 \left[ \left( \frac{W_{1-3}}{9"} \right) ** + 1 \right]$ | $W_{2-4} - 4"$                                  |
| F   | #4   | $2 \left[ \left( \frac{W_{2-4}}{9"} \right) ** + 1 \right]$ | $W_{1-3} - 4"$                                  |

NOTE: VARIABLES AND DESIGNATIONS ARE AS FOLLOWS:  
D (OR SPAN) = PIPE DIAMETER (OR SPAN)  
 $W_{1-3}$  = WIDTH OF SIDE 1 & SIDE 3  
 $W_{2-4}$  = WIDTH OF SIDE 2 & SIDE 4  
 $W^*$  =  $W_{1-3}$  OR  $W_{2-4}$  (SIDE OF ENTERING PIPE)  
\*\* = ROUND TO NEAREST WHOLE NUMBER

CL. "B" CONC. (yd<sup>3</sup>) =  $\left[ (Q1 + Q2) / 46,656 \right] - \sum \text{PIPE OPENING DEDUCTIONS}$   
WHERE:  $Q1 = [5"W_{1-3}W_{2-4}] + [1"(W_{1-3} - 12.5"W_{2-4} - 12.5") + [(T_1 + 6")W_{1-3}W_{2-4}]]$   
 $Q2 = 12"[H - (T_1 + 6")][ (W_{1-3} - 12") + W_{2-4}]$

COMMON PIPE SIZE

| CIRCULAR PIPE |        |                                           | ARCH PIPE |        |                                           |
|---------------|--------|-------------------------------------------|-----------|--------|-------------------------------------------|
| PIPE SIZE     | T      | PIPE OPENING DEDUCTION (yd <sup>3</sup> ) | PIPE SIZE | T      | PIPE OPENING DEDUCTION (yd <sup>3</sup> ) |
| 18"           | 2 1/2" | 0.053                                     | 22" x 13" | 2 1/2" | 0.053                                     |
| 24"           | 3"     | 0.091                                     | 29" x 18" | 3"     | 0.087                                     |
| 30"           | 3 1/2" | 0.138                                     | 36" x 23" | 3 1/2" | 0.129                                     |
| 36"           | 4"     | 0.196                                     | 44" x 27" | 4"     | 0.185                                     |
| 42"           | 4 1/2" | 0.263                                     | 51" x 31" | 4 1/2" | 0.245                                     |
| 48"           | 5"     | 0.340                                     | 58" x 36" | 5"     | 0.318                                     |
| 54"           | 5 1/2" | 0.427                                     | 65" x 40" | 5 1/2" | 0.394                                     |
| 60"           | 6"     | 0.524                                     | 73" x 45" | 6"     | 0.489                                     |
| 66"           | 6 1/2" | 0.630                                     |           |        |                                           |
| 72"           | 7"     | 0.747                                     |           |        |                                           |

GENERAL NOTES:

- REINFORCING STEEL QUANTITIES TO BE COMPUTED FROM BAR LIST AND SHOWN ELSEWHERE ON THE PLANS.
- QUANTITIES FOR JUNCTION BOXES SHOWN ON THE PLANS WILL BE THE BASIS FOR PAYMENT UNLESS AUTHORIZED MODIFICATIONS ARE MADE.
- CONCRETE SHALL BE CLASS "B" AND REINFORCING STEEL SHALL BE DEFORMED BARS.
- SIDE 1 OF THE JUNCTION BOX WILL ALWAYS BE THE OUTFLOW SIDE.
- IF PIPES ARE SKEWED MORE THAN 15° OR IF SKEWED PIPES PRODUCE CONFLICTS WITH ANOTHER OPENING, THE PIPE SHALL BE BROKEN BACK TO THE WALL OF THE JUNCTION BOX.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
ROADWAY DESIGN DIVISION  
STANDARD PLAN

JUNCTION BOX  
FOR PIPE CULVERTS

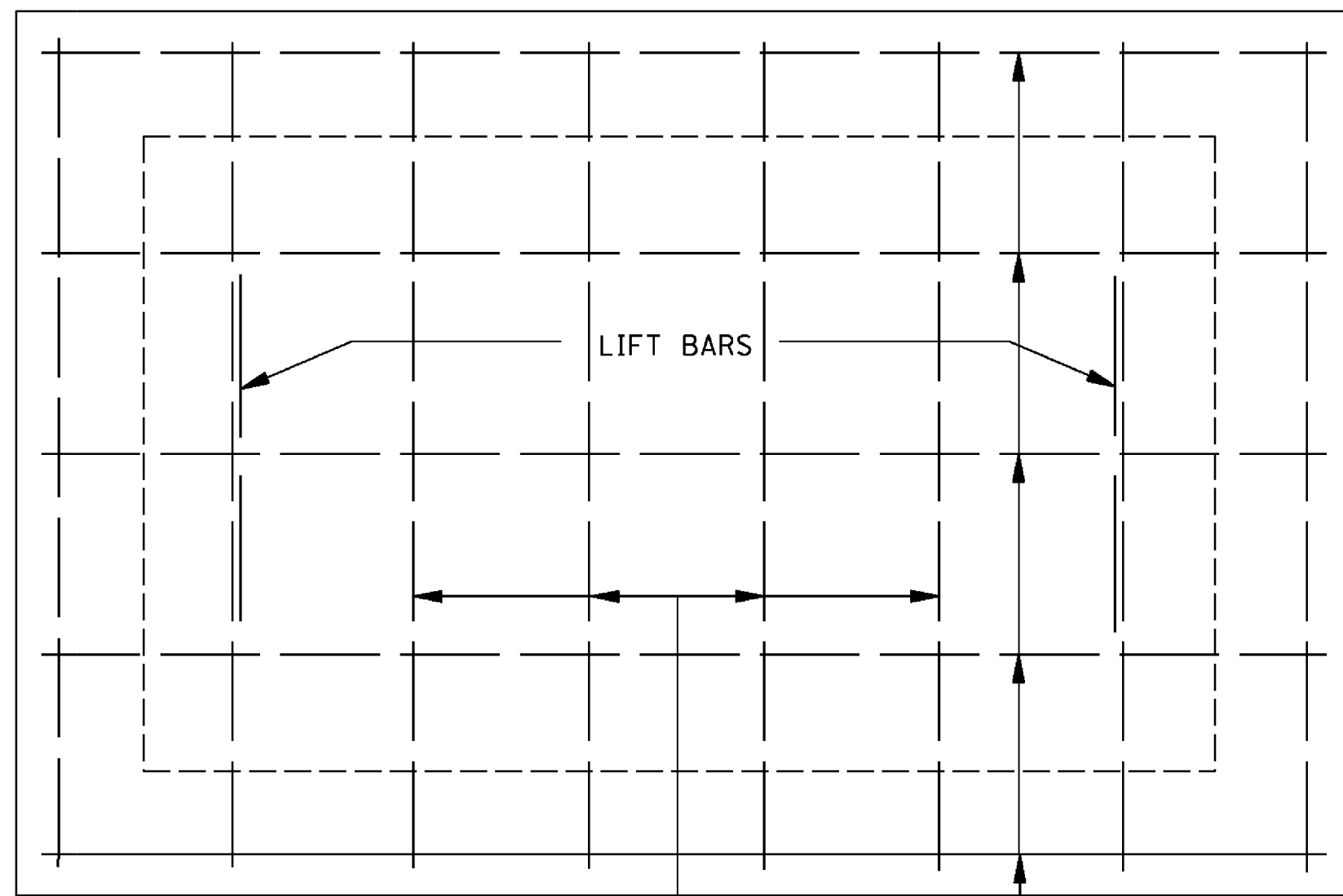


WORKING NUMBER  
JB-1

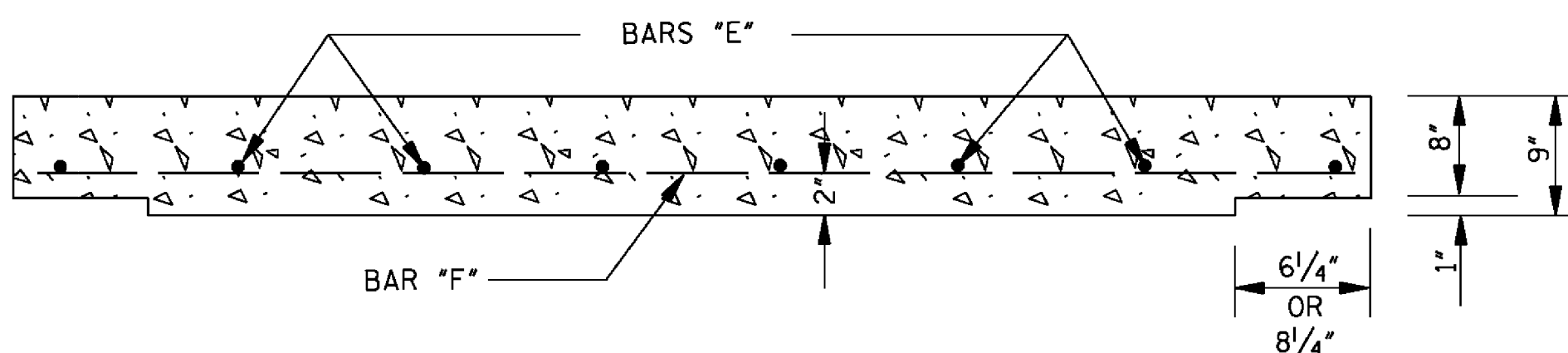
SHEET NUMBER  
6504

ISSUE DATE: AUGUST 01, 2017

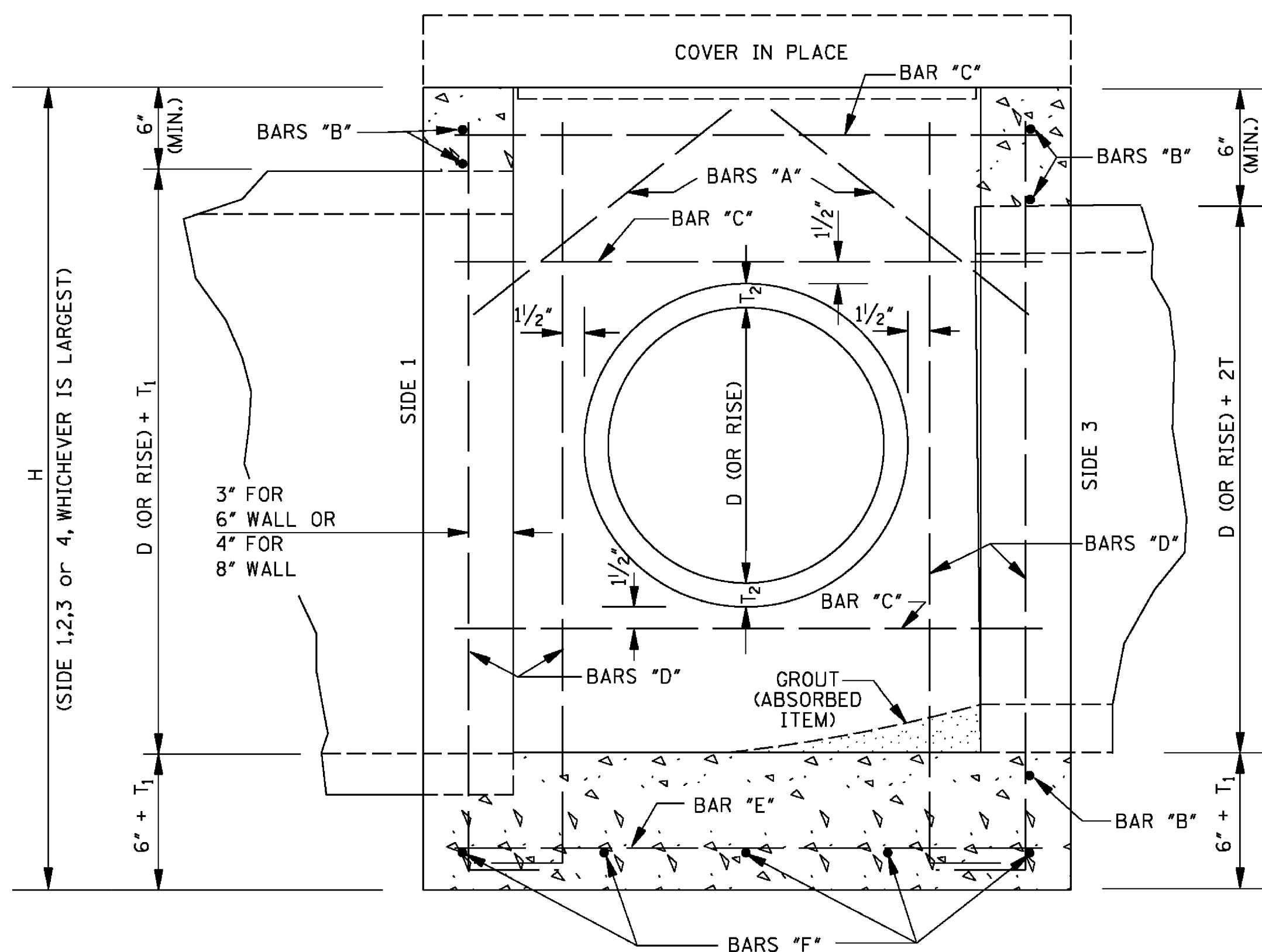




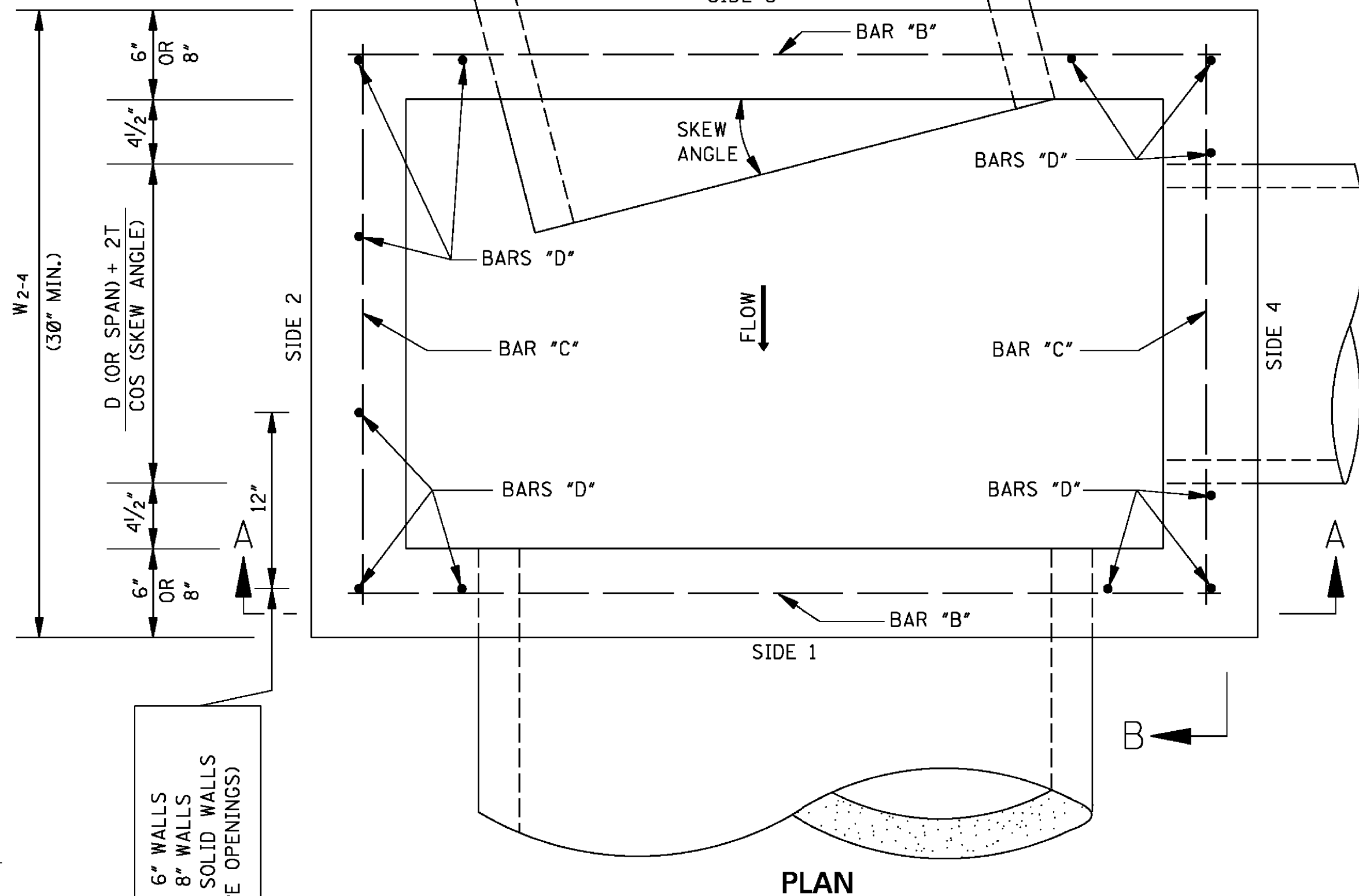
PLAN OF COVER



ELEVATION OF COVER

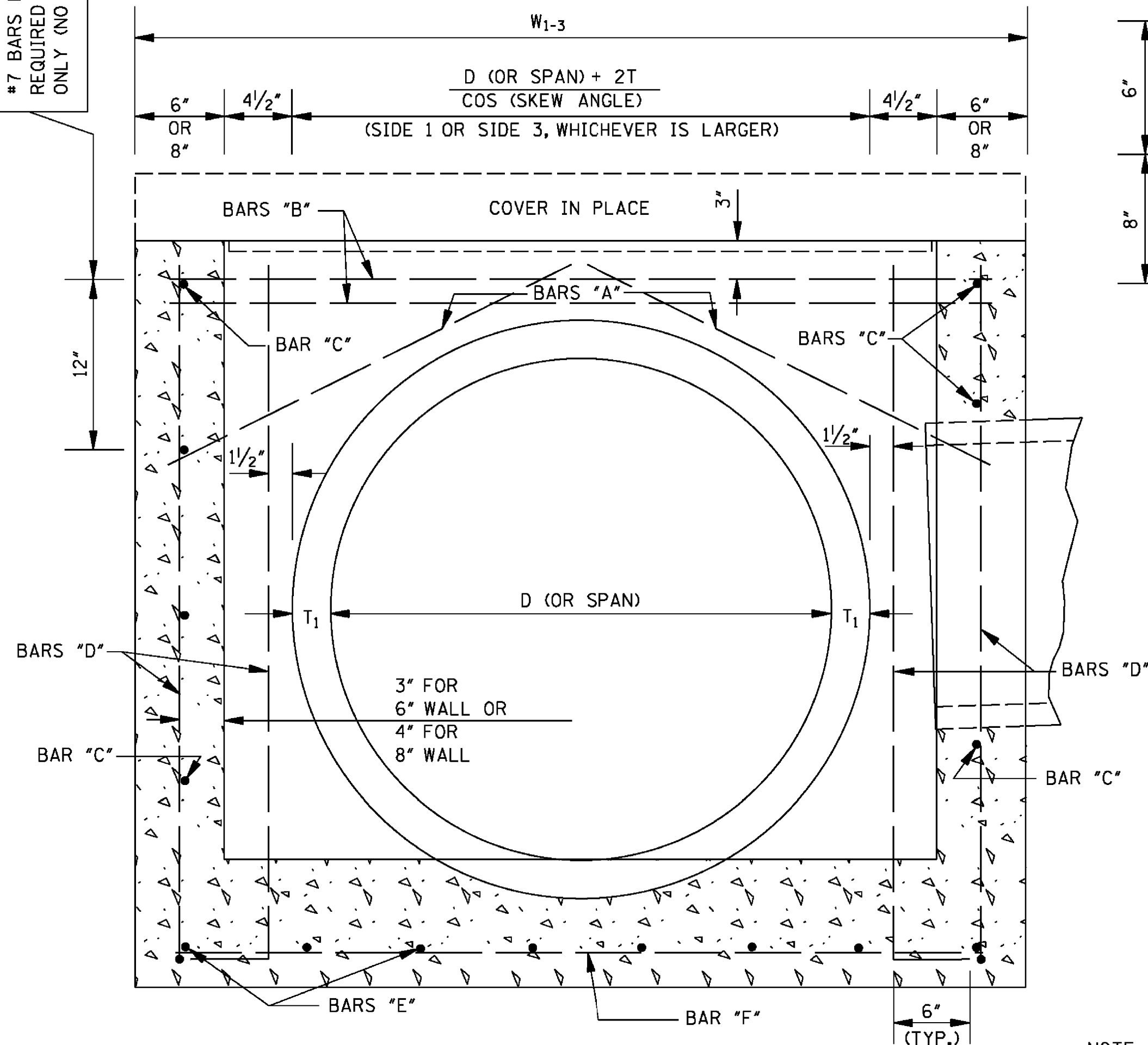


SECTION B-B



PLAN

#6 BARS FOR 6" WALLS  
#7 BARS FOR 8" WALLS  
REQUIRED ON SOLID WALLS  
ONLY (NO PIPE OPENINGS)



SECTION A-A

| REINFORCING BAR LIST |                                  |                                                                         |                                |
|----------------------|----------------------------------|-------------------------------------------------------------------------|--------------------------------|
| BAR                  | SIZE                             | NUMBER REQUIRED                                                         | LENGTH                         |
| "A"                  | #4                               | 2 PER PIPE OPENING                                                      | $\sqrt{196^2 + (W^* + 2^*)^2}$ |
| "B"                  | #6 FOR 6" WALL<br>#7 FOR 8" WALL | 2 + [2 PER OPENING SIDE 3] + [1 PER SIDE 1] + [12" O.C. FOR SOLID WALL] | $W_{1-3} - 4"$                 |
| "C"                  |                                  | 2 + [2 PER OPENING] + [12" O.C. FOR SOLID WALL]                         | $W_{2-4} - 4"$                 |
| "D"                  |                                  | 4 + [2 PER OPENING] + [12" O.C. FOR SOLID WALL]                         | H                              |
| "E"                  | #6                               | $2 \left[ \left( \frac{W_{1-3}}{6"} \right)^* + 1 \right]$              | $W_{2-4} - 4"$                 |
| "F"                  | #6                               | $2 \left[ \left( \frac{W_{2-4}}{6"} \right)^* + 1 \right]$              | $W_{1-3} - 4"$                 |

NOTE: VARIABLES AND DESIGNATIONS ARE AS FOLLOWS:  
D (OR SPAN) = PIPE DIAMETER (OR SPAN)  
W<sub>1-3</sub> = WIDTH OF SIDE 1 & SIDE 3  
W<sub>2-4</sub> = WIDTH OF SIDE 2 & SIDE 4  
W\* = W<sub>1-3</sub> OR W<sub>2-4</sub> (SIDE OF ENTERING PIPE)  
\*\* = ROUND TO NEAREST WHOLE NUMBER

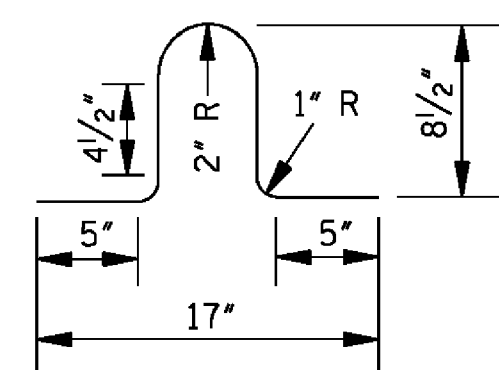
CL. "B" CONC. (yd<sup>3</sup>) = [(Q1 + Q2) / 46,656] - Σ PIPE OPENING DEDUCTIONS  
WHERE: 6" WALL  
Q1 = [8"W<sub>1-3</sub>W<sub>2-4</sub>] + [1"(W<sub>1-3</sub> - 12.5")(W<sub>2-4</sub> - 12.5")] + [(T<sub>1</sub> + 6")W<sub>1-3</sub>W<sub>2-4</sub>]  
Q2 = 12"[H - (T<sub>1</sub> + 6")][(W<sub>1-3</sub> - 12") + W<sub>2-4</sub>]  
OR: 8" WALL  
Q1 = [8"W<sub>1-3</sub>W<sub>2-4</sub>] + [1"(W<sub>1-3</sub> - 16.5")(W<sub>2-4</sub> - 16.5")] + [(T<sub>1</sub> + 6")W<sub>1-3</sub>W<sub>2-4</sub>]  
Q2 = 16"[H - (T<sub>1</sub> + 6")][(W<sub>1-3</sub> - 16") + W<sub>2-4</sub>]

| COMMON PIPE SIZE |        |                                           |          |           |        |
|------------------|--------|-------------------------------------------|----------|-----------|--------|
| CIRCULAR PIPE    |        |                                           |          | ARCH PIPE |        |
| PIPE SIZE        | T      | PIPE OPENING DEDUCTION (yd <sup>3</sup> ) |          | PIPE SIZE | T      |
|                  |        | 6" WALL                                   | †8" WALL |           |        |
| 18"              | 2 1/2" | 0.053                                     | 0.071    | 22" X 13" | 2 1/2" |
| 24"              | 3"     | 0.091                                     | 0.121    | 29" X 18" | 3"     |
| 30"              | 3 1/2" | 0.138                                     | 0.184    | 36" X 23" | 3 1/2" |
| 36"              | 4"     | 0.196                                     | 0.261    | 44" X 27" | 4"     |
| 42"              | 4 1/2" | 0.263                                     | 0.350    | 51" X 31" | 4 1/2" |
| 48"              | 5"     | -                                         | 0.453    | 58" X 36" | 5"     |
| 54"              | 5 1/2" | -                                         | 0.569    | 65" X 40" | 5 1/2" |
| 60"              | 6"     | -                                         | 0.699    | 73" X 45" | 6"     |
| 66"              | 6 1/2" | -                                         | 0.840    |           |        |
| 72"              | 7"     | -                                         | 0.996    |           |        |

† NOTE: IF ANY PIPE REQUIRING A 8" WALL IS USED, ALL WALLS SHALL BE 8" REGARDLESS OF PIPE SIZE.

GENERAL NOTES:

- REINFORCING STEEL QUANTITIES TO BE COMPUTED FROM BAR LIST AND SHOWN ELSEWHERE ON THE PLANS.
- QUANTITIES FOR JUNCTION BOXES SHOWN ON THE PLANS WILL BE THE BASIS FOR PAYMENT UNLESS AUTHORIZED MODIFICATIONS ARE MADE.
- CONCRETE SHALL BE CLASS "B" AND REINFORCING STEEL SHALL BE DEFORMED BARS, ASTM A 615, GRADE 60 OR AASHTO M 31, GRADE 60.
- SIDE 1 OF THE JUNCTION BOX WILL ALWAYS BE THE OUTFLOW SIDE.
- IF PIPES ARE SKEWED MORE THAN 15° OR IF SKEWED PIPES PRODUCE CONFLICTS WITH ANOTHER OPENING, THE PIPE SHALL BE BROKEN BACK TO THE WALL OF THE JUNCTION BOX.

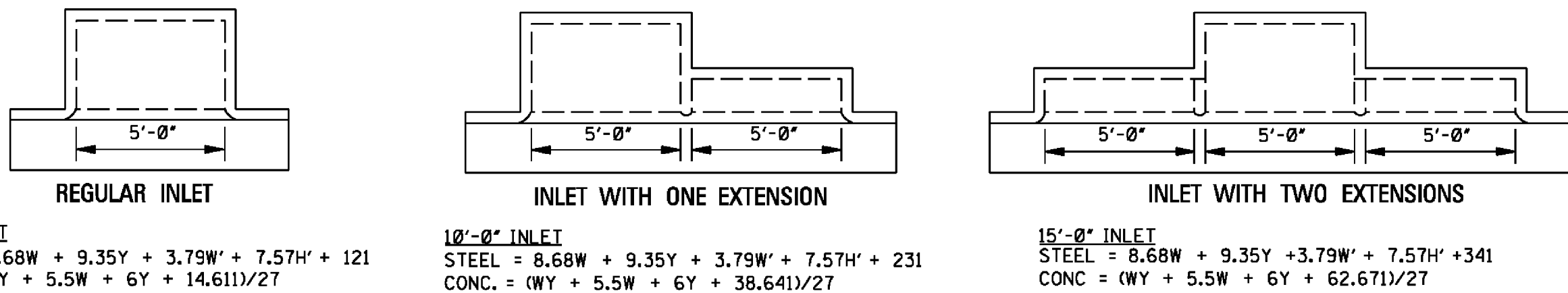


LIFT BAR

NOTE: LIFT BAR TO BE FABRICATED FROM A #4 BAR 30" LONG. TWO LIFT BARS ARE REQUIRED. REINFORCING STEEL FOR 2 LIFT BARS = 3.3 lbs.

|          |                                          |
|----------|------------------------------------------|
| BY       | MISSISSIPPI DEPARTMENT OF TRANSPORTATION |
| REVISION | ROADWAY DESIGN DIVISION                  |
| DATE     | STANDARD PLAN                            |
|          | <b>JUNCTION BOX TYPE 2</b>               |
|          | <b>FOR TRAFFIC LOAD</b>                  |
|          | <b>(MAXIMUM "W" = 9'-3")</b>             |
|          | ISSUE DATE: AUGUST 01, 2017              |
|          | WORKING NUMBER JB-2                      |
|          | SHEET NUMBER 6506                        |





NOTES:

1. W AND H ARE EXPRESSED IN DECIMAL FEET.
2. W' = W ROUNDED TO NEAREST WHOLE FOOT.
3. Y = (H-0.5).
4. H' = (H - 2.08) ROUNDED TO NEAREST WHOLE FOOT.
5. NO DEDUCTIONS ARE MADE FOR PIPE OPENINGS IN FORMULAS.

## PLAN OF INLET AND EXTENSIONS

| ADD. CONCRETE<br>PER FOOT OF H |           | ADD. CONCRETE<br>PER FOOT OF W |           |
|--------------------------------|-----------|--------------------------------|-----------|
| W                              | yd 3/4 ft | H                              | yd 3/4 ft |
| 2'-6"                          | 0.315     | 3'-6"                          | 0.315     |
| 3'-0"                          | 0.333     | 4'-0"                          | 0.333     |
| 3'-6"                          | 0.352     | 4'-6"                          | 0.352     |
| 4'-0"                          | 0.371     | 5'-0"                          | 0.370     |
| 4'-6"                          | 0.389     | 5'-6"                          | 0.389     |
| 5'-0"                          | 0.408     | 6'-0"                          | 0.408     |
| 5'-6"                          | 0.426     | 6'-6"                          | 0.426     |
| 6'-0"                          | 0.445     | 7'-0"                          | 0.445     |
| 6'-6"                          | 0.463     | 7'-6"                          | 0.463     |
| 7'-0"                          | 0.481     | 8'-0"                          | 0.482     |
|                                |           | 8'-6"                          | 0.500     |

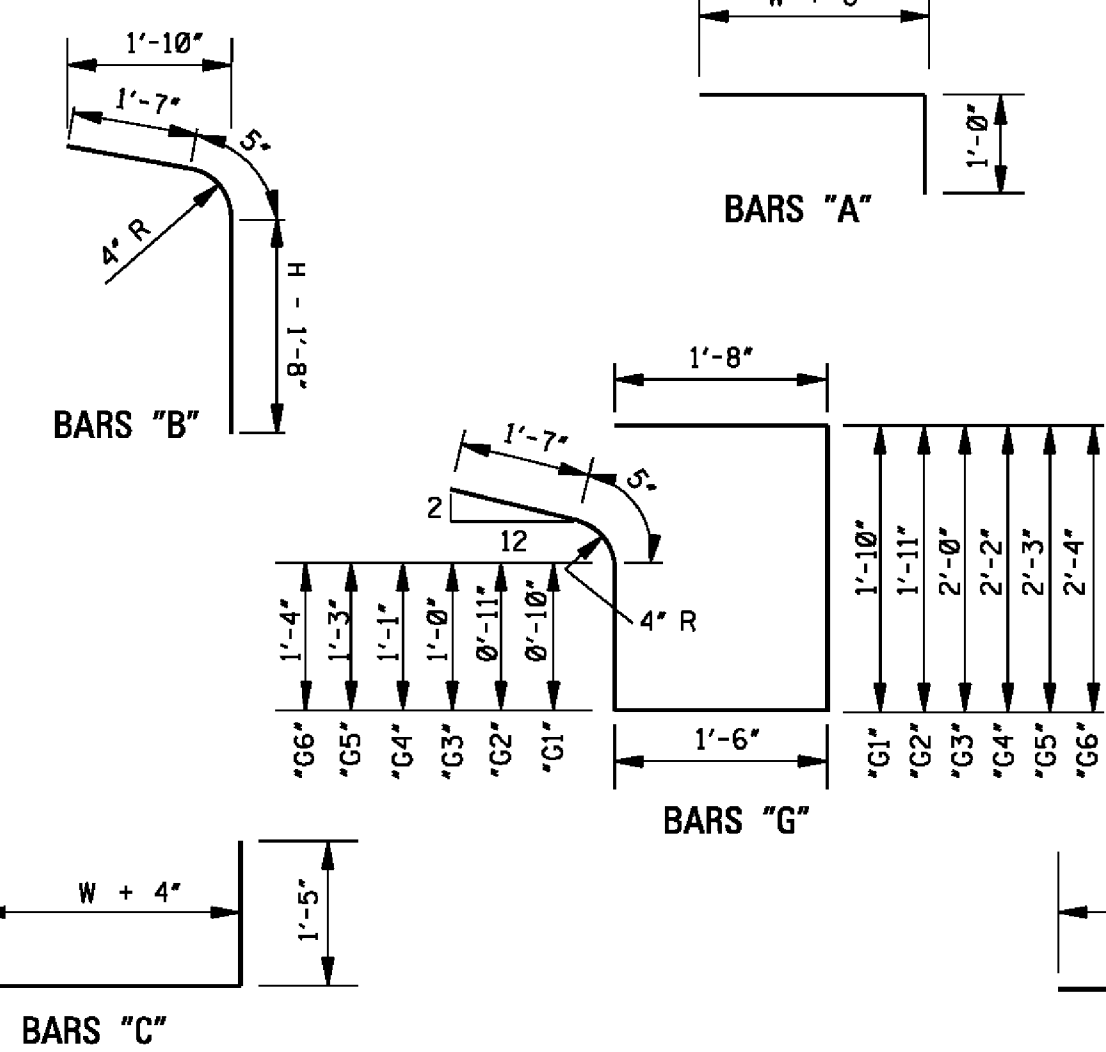
QUANTITIES FOR ONE EXTENSION

| BAR                                                     | SIZE | LENGTH       | SPACING  | NUMBER | TWEIGHT |
|---------------------------------------------------------|------|--------------|----------|--------|---------|
| "E"                                                     | #4   | 5'-8"        | AS SHOWN | 3      | 11      |
| "G"                                                     | #4   | SEE SCHEDULE | 0'-11"   | 6      | 34      |
| "H"                                                     | #6   | 6'-9"        | AS SHOWN | 5      | 51      |
| "L"                                                     | #6   | 4'-9"        | AS SHOWN | 2      | 14      |
| TOTAL STEEL FOR ONE EXTENSION = 110 lbs                 |      |              |          |        |         |
| TOTAL CONCRETE FOR ONE EXTENSION = 0.89 yd <sup>3</sup> |      |              |          |        |         |

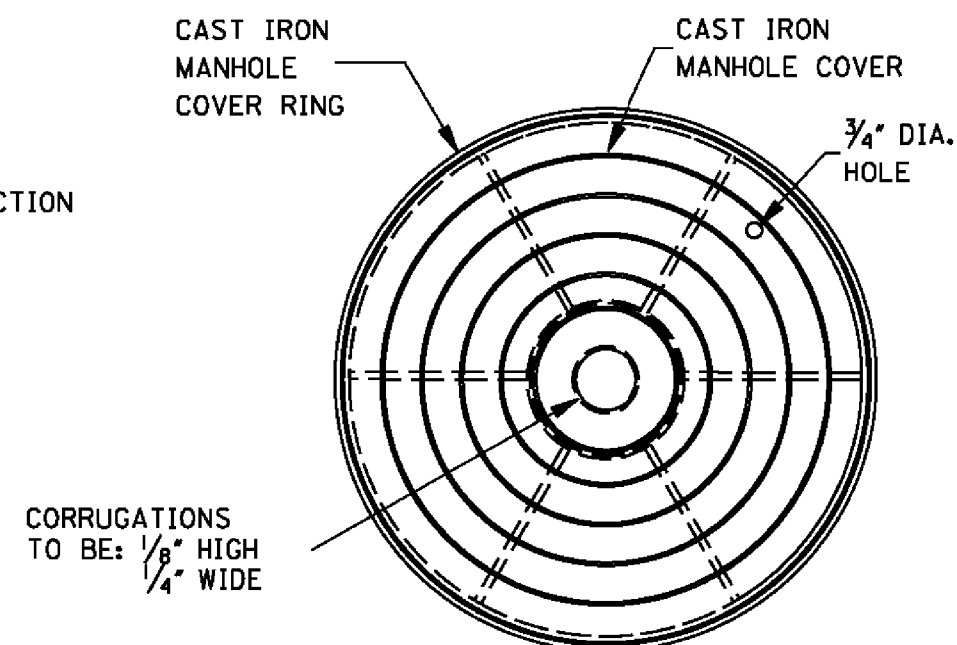
†NOTE: WHERE EXTENSION IS USED WITH CONCRETE PAVEMENT,  
ADD 27 lbs OF STEEL FOR BARS "M".

# BAR "G" SCHEDULE

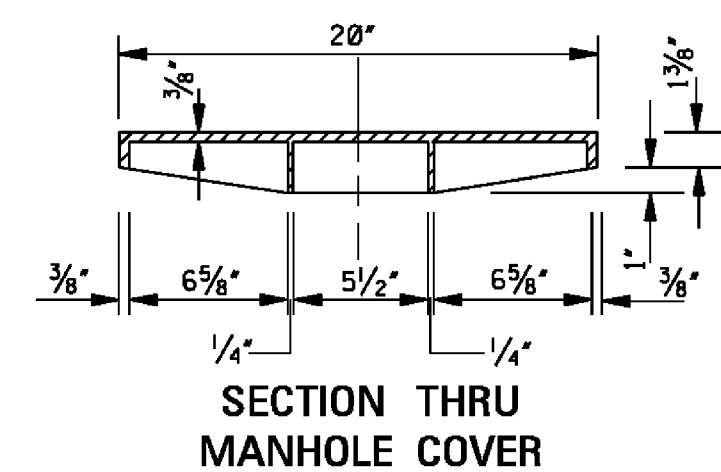
| BAR "G" | LENGTH |
|---------|--------|
| "G1"    | 7'-10" |
| "G2"    | 8'-0"  |
| "G3"    | 8'-2"  |
| "G4"    | 8'-5"  |
| "G5"    | 8'-8"  |
| "G6"    | 8'-10" |



## BAR DETAILS

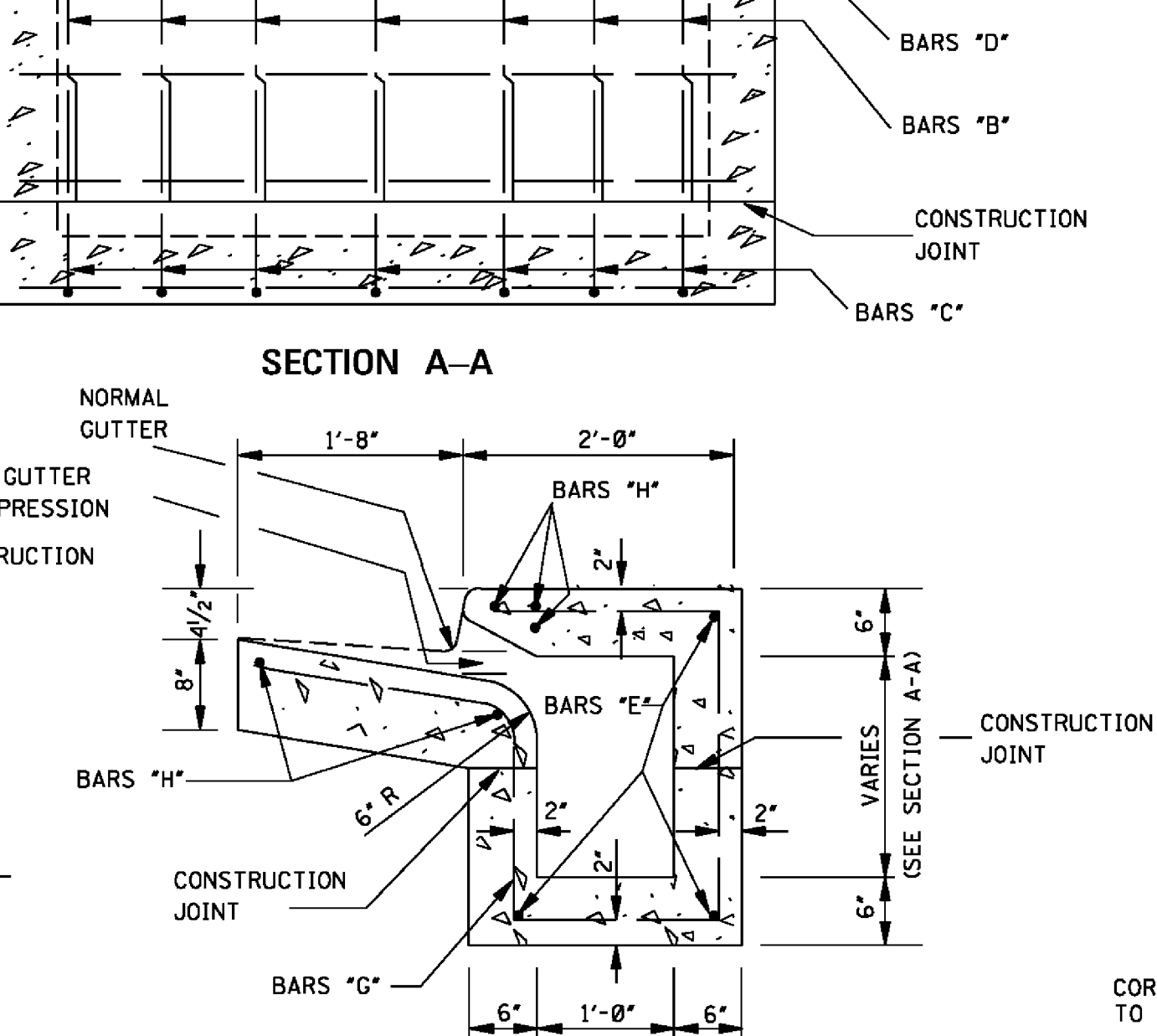


## PLAN



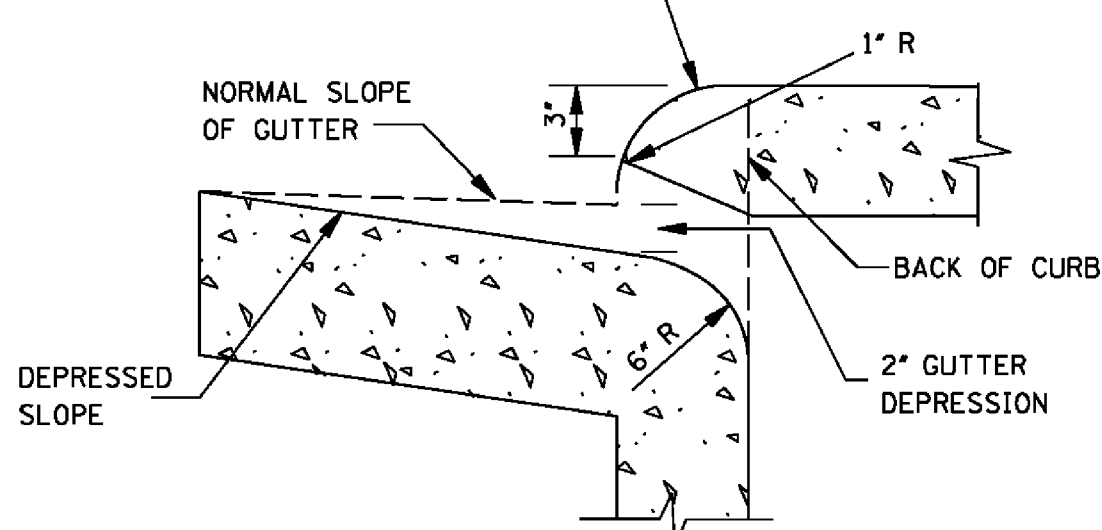
**SECTION THRU  
MANHOLE COVER RING**  
NOTE: WEIGHT OF RING & COVER = 79 lbs

NOTE: WEIGHT OF RING & COVER = 79 lbs



**SECTION B-B**

SECTION C-C



### THROAT DETAIL OF BARRIER CURB

THROAT DETAIL OF ROLLED CURB

### DETAIL OF KEYED CONSTRUCTION JOINTS

NOTE: FIELD BEND BARS 'L'  
TO CENTER OF GUTTER SECTION

| W=2'-6" |                                 | BILL OF REINFORCING STEEL FOR 1-5'-0" INLET |                                 |     |                                  |     |                                  |     |                        |     |                          |     |                    |     |                    |       |                     |                |                 |      |     |      |
|---------|---------------------------------|---------------------------------------------|---------------------------------|-----|----------------------------------|-----|----------------------------------|-----|------------------------|-----|--------------------------|-----|--------------------|-----|--------------------|-------|---------------------|----------------|-----------------|------|-----|------|
| H       | BAR "A"<br>L = 4'-2"<br>#4 @ 9" |                                             | BAR "C"<br>L = 5'-8"<br>#4 @ 9" |     | BAR "S"<br>L = 5'-8"<br>#4 @ 12" |     | BAR "D"<br>L = 5'-8"<br>#4 @ 12" |     | BAR "F"<br>9'-8"<br>#6 |     | BAR "J"<br>L=2'-3"<br>#4 |     | BAR "B"<br>#4 @ 9" |     | BAR "K"<br>#4 @ 9" |       | *<br>TOTAL<br>STEEL | TOTAL<br>CONC. |                 |      |     |      |
|         | NO.                             | lbs                                         | NO.                             | lbs | NO.                              | lbs | NO.                              | lbs | NO.                    | lbs | NO.                      | lbs | LGTH.              | NO. | lbs                | LGTH. | NO.                 | lbs            | yd <sup>3</sup> |      |     |      |
| 3'-6"   | 6                               | 17                                          | 7                               | 27  | 5                                | 19  | 5                                | 19  | 5                      | 19  | 5                        | 19  | 4                  | 6   | 3'-10"             | 7     | 18                  | 2'-7"          | 7               | 12   | 190 | 1.99 |
| 4'-0"   | 6                               | 17                                          | 7                               | 27  | 5                                | 19  | 7                                | 26  | 5                      | 19  | 4                        | 6   | 4'-4"              | 7   | 20                 | 3'-1" | 7                   | 14             | 202             | 2.15 |     |      |
| 4'-6"   | 6                               | 17                                          | 7                               | 27  | 5                                | 19  | 7                                | 26  | 5                      | 19  | 4                        | 6   | 4'-10"             | 7   | 23                 | 3'-7" | 7                   | 17             | 207             | 2.31 |     |      |
| 5'-0"   | 6                               | 17                                          | 7                               | 27  | 5                                | 19  | 9                                | 34  | 5                      | 19  | 4                        | 6   | 5'-4"              | 7   | 25                 | 4'-1" | 7                   | 19             | 219             | 2.47 |     |      |
| 5'-6"   | 6                               | 17                                          | 7                               | 27  | 5                                | 19  | 9                                | 34  | 5                      | 19  | 4                        | 6   | 5'-10"             | 7   | 27                 | 4'-7" | 7                   | 21             | 224             | 2.62 |     |      |
| 6'-0"   | 6                               | 17                                          | 7                               | 27  | 5                                | 19  | 11                               | 42  | 5                      | 19  | 4                        | 6   | 6'-4"              | 7   | 30                 | 5'-1" | 7                   | 24             | 238             | 2.78 |     |      |
| 6'-6"   | 6                               | 17                                          | 7                               | 27  | 5                                | 19  | 11                               | 42  | 5                      | 19  | 4                        | 6   | 6'-10"             | 7   | 32                 | 5'-7" | 7                   | 26             | 240             | 2.94 |     |      |
| 7'-0"   | 6                               | 17                                          | 7                               | 27  | 5                                | 19  | 13                               | 49  | 5                      | 19  | 4                        | 6   | 7'-4"              | 7   | 34                 | 6'-1" | 7                   | 28             | 253             | 3.10 |     |      |
| 7'-6"   | 6                               | 17                                          | 7                               | 27  | 5                                | 19  | 13                               | 49  | 5                      | 19  | 4                        | 6   | 7'-10"             | 7   | 37                 | 6'-7" | 7                   | 31             | 257             | 3.25 |     |      |

|         |                                             |
|---------|---------------------------------------------|
| W=3'-0" | BILL OF REINFORCING STEEL FOR 1-5'-0" INLET |
|---------|---------------------------------------------|

| H     | BAR "A"<br>L = 4'-8"<br>#4 @ 9" |     | BAR "C"<br>L = 6'-2"<br>#4 @ 9" |     | BAR "S"<br>L = 5'-8"<br>#4 @ 12" |     | BAR "D"<br>L = 5'-8"<br>#4 @ 12" |     | BAR "F"<br>L=9'-8"<br>#6 |     | BAR "J"<br>L=2'-3"<br>#4 |     | BAR "B"<br>#4 @ 9" |     | BAR "K"<br>#4 @ 9" |       | *<br>TOTAL<br>STEEL | TOTAL<br>CONC.  |     |      |
|-------|---------------------------------|-----|---------------------------------|-----|----------------------------------|-----|----------------------------------|-----|--------------------------|-----|--------------------------|-----|--------------------|-----|--------------------|-------|---------------------|-----------------|-----|------|
|       | NO.                             | lbs | NO.                             | lbs | NO.                              | lbs | NO.                              | lbs | NO.                      | lbs | NO.                      | lbs | NO.                | lbs | NO.                | lbs   |                     | yd <sup>3</sup> |     |      |
| 3'-6" | 6                               | 19  | 7                               | 29  | 5                                | 19  | 5                                | 19  | 5                        | 73  | 4                        | 6   | 3'-10"             | 7   | 18                 | 2'-7" | 7                   | 12              | 194 | 2.15 |
| 4'-0" | 6                               | 19  | 7                               | 29  | 5                                | 19  | 7                                | 26  | 5                        | 73  | 4                        | 6   | 4'-4"              | 7   | 20                 | 3'-1" | 7                   | 14              | 286 | 2.32 |
| 4'-6" | 6                               | 19  | 7                               | 29  | 5                                | 19  | 7                                | 26  | 5                        | 73  | 4                        | 6   | 4'-10"             | 7   | 23                 | 3'-7" | 7                   | 17              | 211 | 2.49 |
| 5'-0" | 6                               | 19  | 7                               | 29  | 5                                | 19  | 9                                | 34  | 5                        | 73  | 4                        | 6   | 5'-4"              | 7   | 25                 | 4'-1" | 7                   | 19              | 223 | 2.65 |
| 5'-6" | 6                               | 19  | 7                               | 29  | 5                                | 19  | 9                                | 34  | 5                        | 73  | 4                        | 6   | 5'-10"             | 7   | 27                 | 4'-7" | 7                   | 21              | 228 | 2.82 |
| 6'-0" | 6                               | 19  | 7                               | 29  | 5                                | 19  | 11                               | 42  | 5                        | 73  | 4                        | 6   | 6'-4"              | 7   | 30                 | 5'-1" | 7                   | 24              | 240 | 2.99 |
| 6'-6" | 6                               | 19  | 7                               | 29  | 5                                | 19  | 11                               | 42  | 5                        | 73  | 4                        | 6   | 6'-10"             | 7   | 32                 | 5'-7" | 7                   | 26              | 245 | 3.15 |
| 7'-0" | 6                               | 19  | 7                               | 29  | 5                                | 19  | 13                               | 49  | 5                        | 73  | 4                        | 6   | 7'-4"              | 7   | 34                 | 6'-1" | 7                   | 28              | 257 | 3.32 |
| 7'-6" | 6                               | 19  | 7                               | 29  | 5                                | 19  | 13                               | 49  | 5                        | 73  | 4                        | 6   | 7'-10"             | 7   | 37                 | 6'-7" | 7                   | 31              | 262 | 3.49 |

|         |                                             |
|---------|---------------------------------------------|
| W=3'-6" | BILL OF REINFORCING STEEL FOR 1-5'-Ø" INLET |
|---------|---------------------------------------------|

| H     | BAR "A"<br>L = 5'-2"<br>#4 @ 9" |     | BAR "C"<br>L = 6'-8"<br>#4 @ 9" |     | BAR "S"<br>L = 5'-8"<br>#4 @ 12" |     | BAR "D"<br>L = 5'-8"<br>#4 @ 12" |     | BAR "F"<br>L=9'-8"<br>#6 |     | BAR "J"<br>L=2'-3"<br>#4 |     | BAR "B"<br>#4 @ 9" |     | BAR "K"<br>#4 @ 9" |       | * TOTAL<br>STEEL |     | TOTAL<br>CONC.  |      |
|-------|---------------------------------|-----|---------------------------------|-----|----------------------------------|-----|----------------------------------|-----|--------------------------|-----|--------------------------|-----|--------------------|-----|--------------------|-------|------------------|-----|-----------------|------|
|       | NO.                             | lbs | NO.                             | lbs | NO.                              | lbs | NO.                              | lbs | NO.                      | lbs | NO.                      | lbs | NO.                | lbs | NO.                | lbs   | NO.              | lbs | yd <sup>3</sup> |      |
| 3'-6" | 6                               | 21  | 7                               | 31  | 5                                | 19  | 6                                | 23  | 5                        | 73  | 4                        | 6   | 3'-10"             | 7   | 18                 | 2'-7" | 7                | 12  | 282             | 2.31 |
| 4'-0" | 6                               | 21  | 7                               | 31  | 5                                | 19  | 8                                | 30  | 5                        | 73  | 4                        | 6   | 4'-4"              | 7   | 20                 | 3'-1" | 7                | 14  | 214             | 2.49 |
| 4'-6" | 6                               | 21  | 7                               | 31  | 5                                | 19  | 8                                | 30  | 5                        | 73  | 4                        | 6   | 4'-10"             | 7   | 23                 | 3'-7" | 7                | 17  | 219             | 2.66 |
| 5'-0" | 6                               | 21  | 7                               | 31  | 5                                | 19  | 10                               | 38  | 5                        | 73  | 4                        | 6   | 5'-4"              | 7   | 25                 | 4'-1" | 7                | 19  | 231             | 2.84 |
| 5'-6" | 6                               | 21  | 7                               | 31  | 5                                | 19  | 10                               | 38  | 5                        | 73  | 4                        | 6   | 5'-10"             | 7   | 27                 | 4'-7" | 7                | 21  | 236             | 3.01 |
| 6'-0" | 6                               | 21  | 7                               | 31  | 5                                | 19  | 12                               | 45  | 5                        | 73  | 4                        | 6   | 6'-4"              | 7   | 30                 | 5'-1" | 7                | 24  | 248             | 3.19 |
| 6'-6" | 6                               | 21  | 7                               | 31  | 5                                | 19  | 12                               | 45  | 5                        | 73  | 4                        | 6   | 6'-10"             | 7   | 32                 | 5'-7" | 7                | 26  | 253             | 3.37 |
| 7'-0" | 6                               | 21  | 7                               | 31  | 5                                | 19  | 14                               | 53  | 5                        | 73  | 4                        | 6   | 7'-4"              | 7   | 34                 | 6'-1" | 7                | 28  | 265             | 3.54 |
| 7'-6" | 6                               | 21  | 7                               | 31  | 5                                | 19  | 14                               | 53  | 5                        | 73  | 4                        | 6   | 7'-10"             | 7   | 37                 | 6'-7" | 7                | 31  | 270             | 3.72 |

\* NOTE: WHERE INLET IS USED WITH CONCRETE PAVEMENT, ADD 73 lbs OF STEEL FOR BARS "M".

GENERAL NOTES:

1. WHERE INLET OR INLET WITH EXTENSION(S) IS USED WITH CONCRETE PAVEMENT WITH INTEGRAL CURB, THE PAVEMENT SHALL BE BLOCKED OUT TO THE DIMENSIONS AS SHOWN FOR THE GUTTER PORTION OF THE INLET OR INLET WITH EXTENSION(S). THE PORTION BLOCKED OUT SHALL BE PLACED INTEGRAL WITH THE TOP OF THE INLET OR INLET WITH EXTENSION(S). #8 DEFORMED BARS 30" LONG SHALL BE PLACED ON 18" CENTERS AT THE CENTER OF THE PAVEMENT. THESE BARS SHALL EXTEND INTO THE GUTTER PORTION OF THE INLET OR INLET WITH EXTENSION(S) 15". THE CONSTRUCTION JOINT BETWEEN THE CONCRETE PAVEMENT AND THE INLET OR INLET WITH EXTENSION(S) SHALL BE A KEYED JOINT AS SHOWN. A SMOOTH CONSTRUCTION JOINT WILL NOT BE PERMITTED. QUANTITIES FOR BLOCKED OUT AREA OF PAVEMENT SHALL BE INCLUDED IN QUANTITIES FOR INLET OR INLET WITH EXTENSION(S).
2. THE QUANTITIES SHOWN, MINUS VOLUMETRIC DISPLACEMENT OF CONCRETE BY PIPE CULVERTS THROUGH INLET WALLS, WILL BE USED AS THE BASIS OF FINAL PAYMENT UNLESS THIS PLAN IS MODIFIED.
3. FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLE ARE INCREMENTS OF 6". BUT ANY DEPTHS OTHER THAN THESE SHOWN MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS, FALLING WITHIN THE LIMITS OF THE TABLE, MAY BE FOUND BY INTERPOLATION.
4. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMMODATE STORM SEWER. NO DEDUCTIONS ARE TO BE MADE IN STEEL QUANTITIES.
5. WHERE INLET IS BEING USED ADJACENT TO SIDEWALK, REFER TO OTHER SHEETS FOR TOP DETAIL.



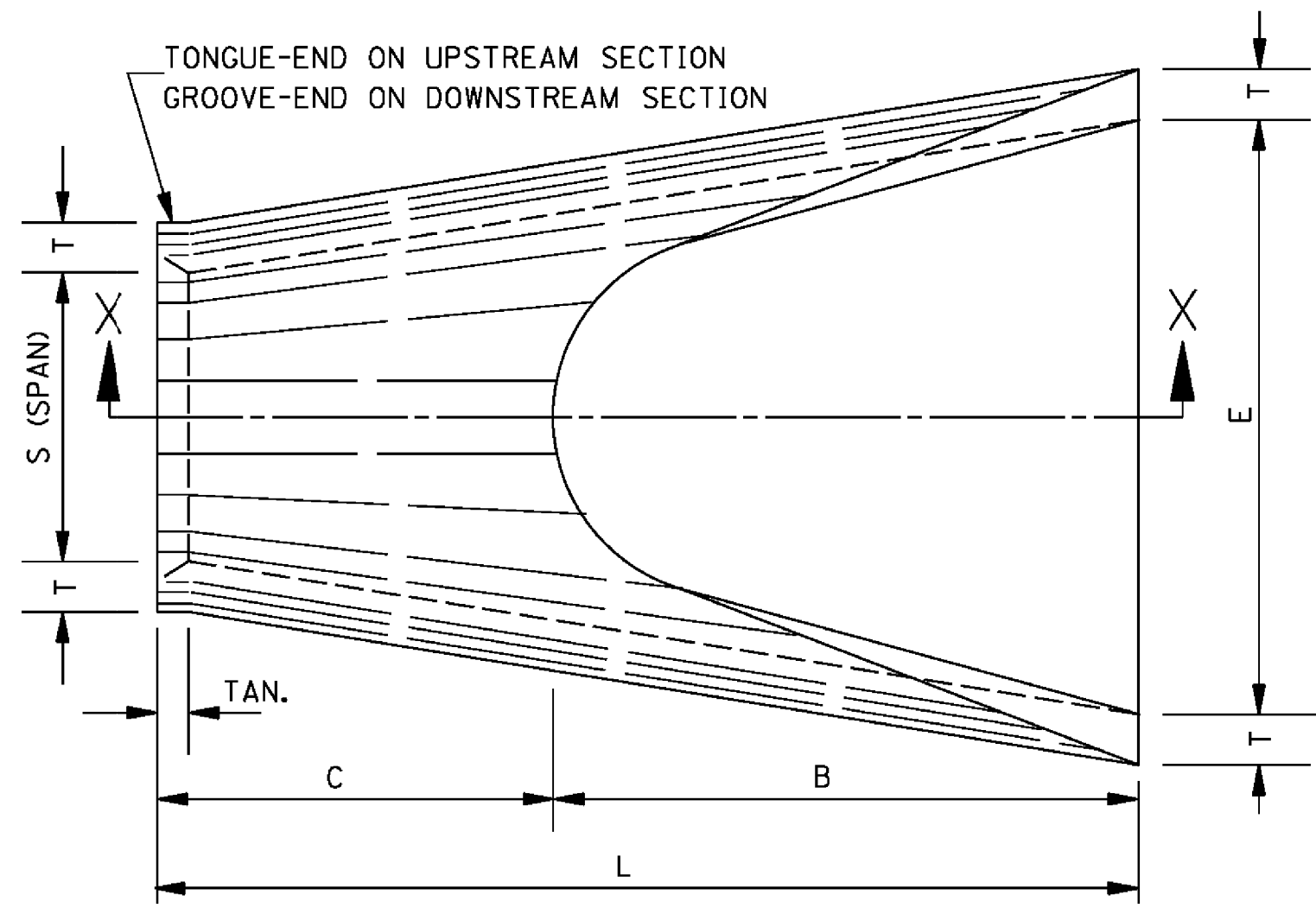
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BELL AND SPIGOT END OPTION TYPE I

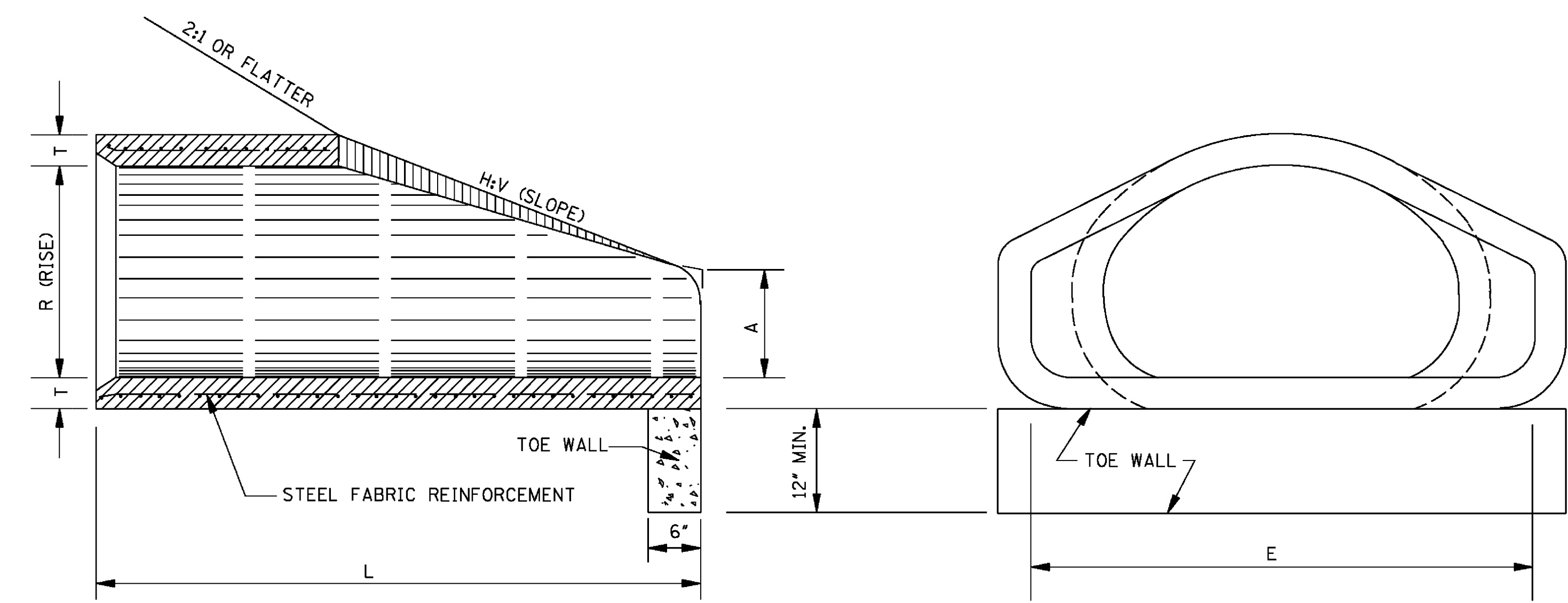
NOTE: BELL-END ON DOWNSTREAM SECTION  
SPIGOT-END ON UPSTREAM SECTION.

| FLARED END SECTION FOR CONCRETE ARCH PIPE |         |         |        |     |           |       |        |        |       |  |
|-------------------------------------------|---------|---------|--------|-----|-----------|-------|--------|--------|-------|--|
| EQUIV. SIZE                               | R       | S       | T      | H:V | A         | B     | C      | E      | L     |  |
| 18"                                       | 13 1/2" | 22"     | 2 1/2" | 3:1 | 7"        | 2'-3" | 3'-9"  | 3'-0"  | 6'-0" |  |
| 24"                                       | 18"     | 28 1/2" | 3"     | 3:1 | 8"        | 3'-3" | 2'-9"  | 4'-0"  | 6'-0" |  |
| 30"                                       | 22 1/2" | 36 1/4" | 3 1/2" | 3:1 | 10"       | 4'-0" | 2'-0"  | 5'-0"  | 6'-0" |  |
| 36"                                       | 26 5/8" | 43 3/4" | 4"     | 3:1 | 10 5/8"   | 5'-0" | 3'-0"  | 6'-0"  | 8'-0" |  |
| 42"                                       | 31 1/6" | 51 1/8" | 4 1/2" | 3:1 | 1'-3 1/6" | 5'-0" | 3'-0"  | 6'-6"  | 8'-0" |  |
| 48"                                       | 36"     | 58 1/2" | 5"     | 3:1 | 1'-9"     | 5'-0" | 3'-0"  | 7'-0"  | 8'-0" |  |
| 54"                                       | 40"     | 65"     | 5 1/2" | 3:1 | 2'-1 1/2" | 5'-0" | 3'-0"  | 7'-6"  | 8'-0" |  |
| 60"                                       | 45"     | 73"     | 6"     | 3:1 | 2'-2"     | 6'-3" | 1'-9"  | 8'-0"  | 8'-0" |  |
| 72"                                       | 54"     | 88"     | 7"     | 3:1 | 2'-11"    | 6'-6" | 1'-10" | 10'-0" | 8'-4" |  |

| TOE WALL<br>CONC. QUANTITY<br>(yd <sup>3</sup> ) |
|--------------------------------------------------|
| 0.063                                            |
| 0.083                                            |
| 0.102                                            |
| 0.123                                            |
| 0.134                                            |
| 0.145                                            |
| 0.156                                            |
| 0.167                                            |
| 0.207                                            |



PLAN OF DOWNSTREAM END



SECTION X-X

FRONT ELEVATION

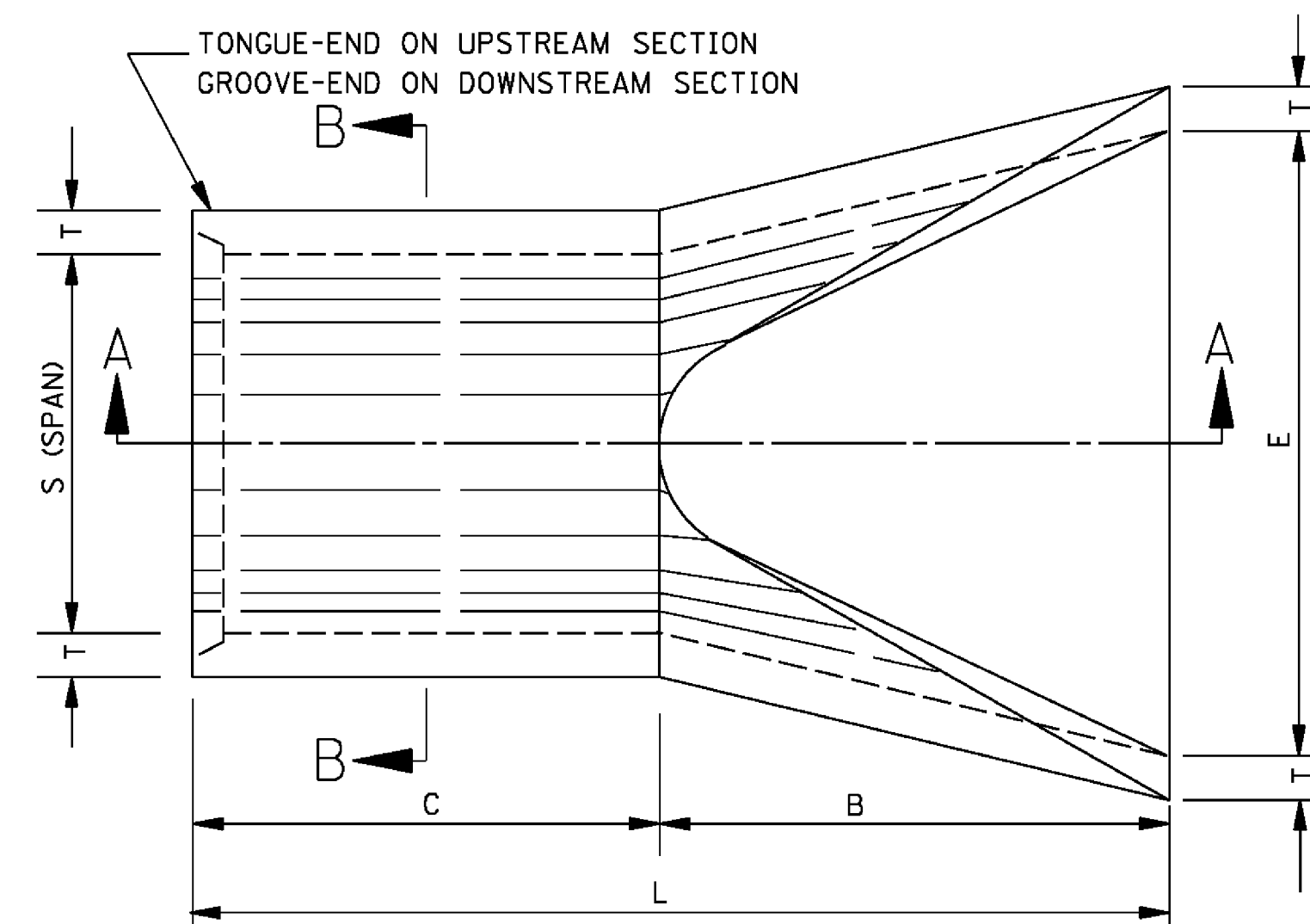
BELL AND SPIGOT END OPTION TYPE II

NOTE: BELL-END ON DOWNSTREAM SECTION  
SPIGOT-END ON UPSTREAM SECTION.

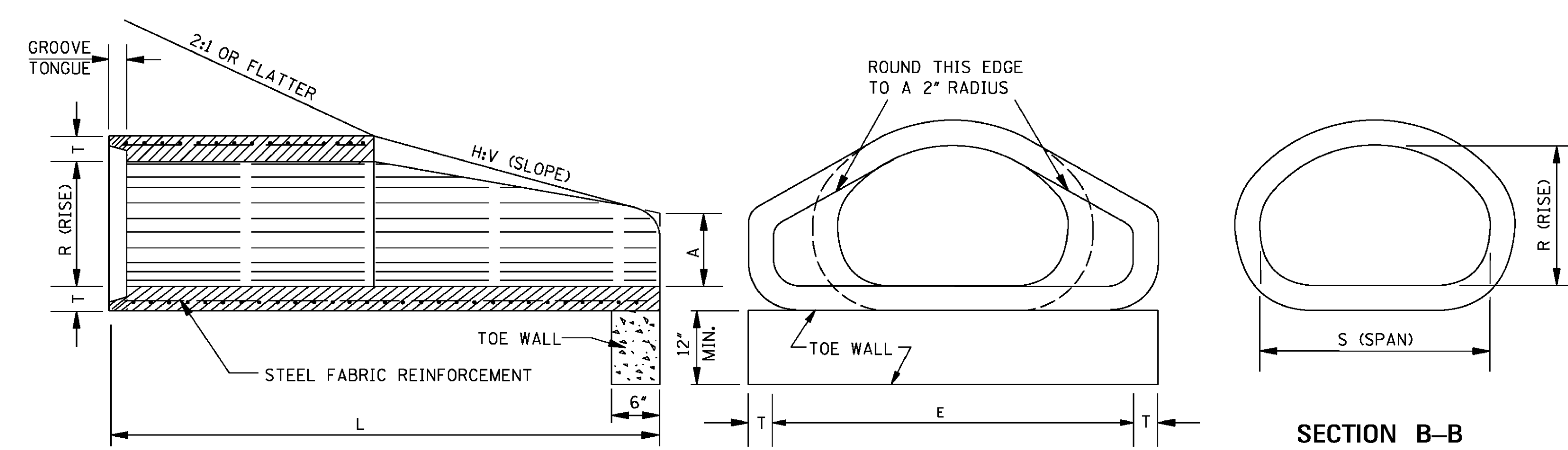
| FLARED END SECTION FOR CONC. ARCH PIPE-SHORT FLARE |         |         |        |        |           |       |            |       |           |               |  |
|----------------------------------------------------|---------|---------|--------|--------|-----------|-------|------------|-------|-----------|---------------|--|
| EQUIV. SIZE                                        | R       | S       | T      | H:V    | A         | B     | C          | E     | L         | GROOVE TONGUE |  |
| * 18"                                              | 13 1/2" | 22"     | 2 1/2" | 3:1    | 7"        | 2'-3" | 3'-9"      | 3'-0" | 6'-0"     | 2 1/4"        |  |
| 24"                                                | 18"     | 28 1/2" | 3 1/2" | 3.12:1 | 9"        | 3'-3" | 2'-9 1/2"  | 4'-0" | 6'-0 1/2" | 3"            |  |
| 30"                                                | 22 1/2" | 36 1/4" | 4"     | 2.94:1 | 9 1/2"    | 4'-2" | 3'-10 1/2" | 5'-0" | 8'-0 1/2" | 3 1/2"        |  |
| 36"                                                | 26 5/8" | 43 3/4" | 4 1/2" | 3.08:1 | 11 5/8"   | 5'-0" | 3'-0 1/2"  | 6'-0" | 8'-0 1/2" | 4"            |  |
| 42"                                                | 31 1/6" | 51 1/8" | 4 1/2" | 3.08:1 | 1'-4 7/8" | 5'-0" | 3'-0 1/2"  | 6'-6" | 8'-0 1/2" | 4"            |  |
| 48"                                                | 36"     | 58 1/2" | 5"     | 3.16:1 | 1'-10"    | 5'-0" | 3'-0 1/2"  | 7'-0" | 8'-0 1/2" | 5"            |  |
| 54"                                                | 40"     | 65"     | 5 1/2" | 3.24:1 | 2'-3"     | 5'-0" | 3'-0 5/8"  | 7'-6" | 8'-0 5/8" | 5"            |  |
| 60"                                                | 45"     | 73"     | 6"     | 3.33:1 | 2'-9"     | 5'-0" | 3'-0 5/8"  | 8'-0" | 8'-0 5/8" | 5"            |  |

| TOE WALL<br>CONC. QUANTITY<br>(yd <sup>3</sup> ) |
|--------------------------------------------------|
| 0.063                                            |
| 0.083                                            |
| 0.102                                            |
| 0.123                                            |
| 0.134                                            |
| 0.145                                            |
| 0.156                                            |
| 0.167                                            |

NOTES: \*1. EQUIVALENT 18" FLARED END SECTION SIMILAR TO TYPE I.  
2. DIMENSIONS A, B, C, E AND L MAY VARY 1"±.



PLAN OF DOWNSTREAM END



SECTION A-A

FRONT ELEVATION

SECTION B-B

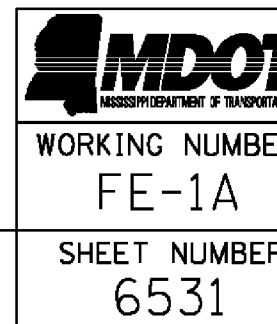
GENERAL NOTES:

- FLARED END SECTIONS SHOULD BE REGARDED AS OBSTACLES UNDER THE BELOW CONDITIONS AND AS SUCH SHOULD BE LOCATED OUTSIDE OF THE CLEAR ZONE.
  - CROSS DRAINS WITH SINGLE ROUND PIPES OF DIAMETER GREATER THAN 36" OR EQUIVALENT FOR ARCH PIPES.
  - CROSS DRAINS WITH MULTIPLE ROUND PIPES OF DIAMETER GREATER THAN 30" OR EQUIVALENT FOR ARCH PIPES.
  - PARALLEL SIDE DRAINS WITH SINGLE ROUND PIPES OF DIAMETER GREATER THAN 24" OR EQUIVALENT FOR ARCH PIPES.
- UNLESS OTHERWISE DESIGNATED, EITHER TYPE I OR TYPE II MAY BE USED, PROVIDED THE SELECTED TYPE IS COMPATIBLE WITH THE CONFIGURATION OF THE PIPE TO WHICH IT SHALL BE ATTACHED.

- ALL SIZES OF TYPE I AND TYPE II FLARED END SECTIONS FOR CONCRETE ARCH PIPE MAY BE FURNISHED WITH EITHER BELL AND SPIGOT OR TONGUE AND GROOVE ENDS.
- REINFORCEMENT (SINGLE LINE) FOR FLARED END SECTION SHALL CONFORM TO REQUIREMENTS OF AASHTO M 206 FOR CLASS II ARCH PIPE.
- TOE WALL REQUIRED ON ALL FLARED END SECTIONS. TO BE PAID FOR AS CLASS "B" STRUCTURAL CONCRETE - MINOR STRUCTURES.
- FLARED END SECTIONS MUST MEET THE REQUIREMENTS FOR ARCH PIPE OF EITHER AASHTO M 206 OR ASTM C 506.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION  
ROADWAY DESIGN DIVISION  
STANDARD PLAN

FLARED END SECTION  
FOR CONCRETE ARCH PIPE



ISSUE DATE: AUGUST 01, 2017



The logo for the Mississippi Department of Transportation (MDOT) is located in the bottom right corner. It features a stylized silhouette of the state of Mississippi to the left of the acronym "MDOT" in large, bold, black letters. Below "MDOT" is the full name "MISSISSIPPI DEPARTMENT OF TRANSPORTATION" in smaller, black, all-caps letters. Below the logo, the text "WORKING NUMBER" is followed by "PCU-1" in a large, bold, black font. Below that, the text "SHEET NUMBER" is followed by "6535" in a large, bold, black font.

\*BASED ON 5" WALL THICKNESS; FOR 3 1/2" WALL, MULTIPLY BY 0.694

## GRATE DETAILS

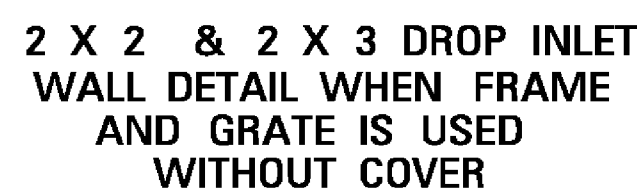
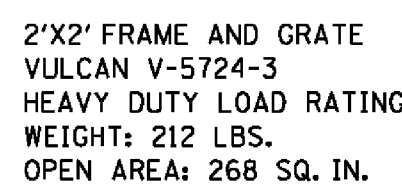
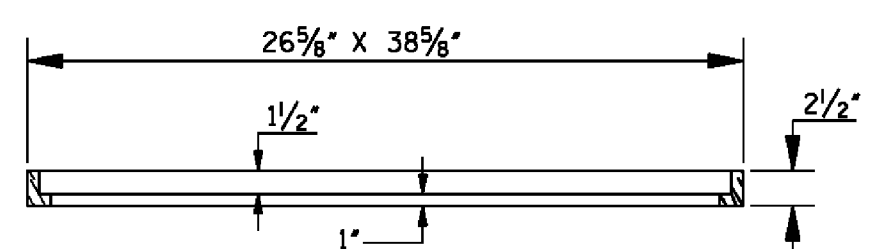
NOTE: CONCRETE CUBIC YARDS PER INLET/JUNCTION BOX =  $\text{BOTTOM} + (\text{TOTAL RISE} \times \text{HEIGHT (FT)} \times \text{C.Y./FT}) + (\text{COVER} - \text{GRATE OPENING}) - \text{ANY HOLE OPENINGS}$

NOTE: CONCRETE CUBIC YARDS PER INLET/JUNCTION BOX = BOTTOM + (TOTAL RISE  
HEIGHT (FT) X C.Y./FT) + (COVER - GRATE OPENING) - ANY HOLE OPENINGS

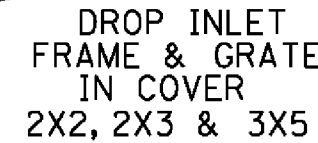
| 2' X 2' WALL REINFORCEMENT (SQ. IN. PER LIN. FT.) |      |       |           |       |                   |       |                   |       |                   |       |                   |       |  |
|---------------------------------------------------|------|-------|-----------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|--|
| DEPTH OF INSTALLATION                             | BASE |       | TOP RISER |       | INTERIOR RISER #1 |       | INTERIOR RISER #2 |       | INTERIOR RISER #3 |       | INTERIOR RISER #4 |       |  |
|                                                   | AREA | LB/FT | AREA      | LB/FT | AREA              | LB/FT | AREA              | LB/FT | AREA              | LB/FT | AREA              | LB/FT |  |
| Ø - 4                                             | 0.07 | 3.942 | -         | -     | -                 | -     | -                 | -     | -                 | -     | -                 | -     |  |
| Ø - 8                                             | 0.13 | 5.862 | 0.07      | 3.942 | -                 | -     | -                 | -     | -                 | -     | -                 | -     |  |
| Ø - 12                                            | 0.20 | 7.786 | 0.07      | 3.942 | 0.13              | 5.862 | -                 | -     | -                 | -     | -                 | -     |  |

| 3' X 5' WALL REINFORCEMENT (SQ. IN. PER LIN. FT.) |      |        |           |         |      |                   |      |                   |      |                   |      |                   |  |
|---------------------------------------------------|------|--------|-----------|---------|------|-------------------|------|-------------------|------|-------------------|------|-------------------|--|
| DEPTH OF INSTALLATION                             |      |        | TOP RISER |         |      | INTERIOR RISER #1 |      | INTERIOR RISER #2 |      | INTERIOR RISER #3 |      | INTERIOR RISER #4 |  |
| FT                                                | AREA | LB/FT  | AREA      | LB/FT   | AREA | LB/FT             | AREA | LB/FT             | AREA | LB/FT             | AREA | LB/FT             |  |
| 0 - 8                                             | 0.30 | 21.939 | 0.24      | 17.3264 | -    | -                 | -    | -                 | -    | -                 | -    | -                 |  |
| 0 - 12                                            | 0.74 | 53.570 | 0.24      | 17.3264 | 0.60 | 43.316            | -    | -                 | -    | -                 | -    | -                 |  |
| 0 - 16                                            | 0.88 | 61.526 | 0.24      | 17.3264 | 0.60 | 43.316            | 0.74 | 53.570            | -    | -                 | -    | -                 |  |
| 0 - 20                                            | 1.14 | 78.146 | 0.24      | 17.3264 | 0.60 | 43.316            | 0.74 | 53.570            | 1.02 | 70.013            | -    | -                 |  |
| 0 - 24                                            | 1.44 | 98.654 | 0.24      | 17.3264 | 0.60 | 43.316            | 0.74 | 53.570            | 1.02 | 70.013            | 1.20 | 82.035            |  |

NOTE: REINFORCEMENT STEEL (LBS PER INLET/JUNCTION BOX) = BOTTOM + TOTAL FOR EACH RISER (TOP PLUS ANY INTERIOR RISERS) (BASE HEIGHT + TOTAL HEIGHT OF RISERS) + COVER; HOLE AND GRATE OPENINGS NOT DEDUCTED



1. CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 4000 PSI MINIMUM AT 28 DAYS.
2. REINFORCING FOR BOTTOM AND WALLS SHALL BE WELDED WIRE FABRIC, ASTM A-185, AND OF THE AREA AS SHOWN IN THE TABLE.
3. REINFORCING FOR COVER SHALL BE ASTM A615/A, AND OF THE SIZE AS SHOWN IN THE TABLE AND DRAWINGS.
4. JOINT TO BE SEALED WITH FLEXIBLE PLASTIC GASKET FOR JOINT CONDUIT, AASHTO SPECIFICATION M-198 OR MDOT SPECIFICATION.
5. 2 1/2" LIFTING HOLES TO BE LOCATED ON EACH SIDE OF BOX SECTIONS FOR HANDLING.
6. GROUT FOR JOINING PIPE TO PRECAST UNITS WILL BE A COMMERCIAL MASONRY GROUT MEETING MDOT SPECIFICATIONS.
7. WHEN INTERIOR RISER UNITS ARE REQUIRED, UNITS SHALL BE MARKED TO IDENTIFY EACH UNIT.
8. CONCRETE & REINFORCING STEEL FOR PRECAST INLETS AND JUNCTION BOXES SHALL BE PAID FOR AS THE CALCULATED QUANTITY SHOWN ON THE RECAP SHEET FOR CAST-IN-PLACE INLETS & JUNCTION BOXES.



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Engineering Progress

**SPECIFICATIONS AND CONTRACT DOCUMENTS**

**FOR**

**INFRASTRUCTURE REHABILITATION  
ARLEDGE STREET & KATIE AVENUE AREA**

**FOR THE**

**CITY OF HATTIESBURG  
LAMAR COUNTY  
MISSISSIPPI**

**MAY 2018**



**PREPARED BY:**

**SHOWS, DEARMAN & WAITS, INC.  
CONSULTING ENGINEERS**

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## **ADVERTISEMENT FOR BIDS**

NOTICE is hereby given that the City Clerk of the **City of Hattiesburg**, MISSISSIPPI, will receive sealed bids until **10:00 A.M. on June 28, 2018** in City Council Chambers at City Hall, 200 Forrest Street, Hattiesburg, MS 39401, and then at said location will open and read aloud bids received for furnishing the City's requirements for the following:

### **INFRASTRUCTURE REHABILITATION ARLEDGE STREET & KATIE AVENUE AREA HATTIESBURG, MISSISSIPPI**

Official bid documents can be downloaded from Central Bidding at [www.centralbidding.com](http://www.centralbidding.com). Electronic bids can be submitted at [www.centralbidding.com](http://www.centralbidding.com). For any questions relating to the electronic bidding process, please call Central Bidding at 225-810-4814. All bids must be accompanied by bid security equal to 5% of the amount of the bid, in the form of a certified check, cashier's check or a bid bond written by a company properly licensed in Mississippi.

Each BID must be received sealed and marked EXACTLY as follows:

### **BID: INFRASTRUCTURE REHABILITATION ARLEDGE STREET & KATIE AVENUE AREA HATTIESBURG, MISSISSIPPI**

No bid may be withdrawn for a period of sixty (60) days. The lowest and best proposal received will be accepted, subject to the provisions of Section 31-7-13 of the Mississippi Code of 1972, Annotated and Amended, and other applicable State law; but the Council reserves the right to reject any or all proposals received and to waive informalities.

PUBLISHED by Order of the Council on the \_\_\_\_ day of \_\_\_\_\_ A.D., 2018.

CITY OF HATTIESBURG, MISSISSIPPI

BY: \_\_\_\_\_  
Kermas Eaton, City Clerk

Publish on May 31, 2018 and June 7, 2018  
City of Hattiesburg  
Return PROOF to City Clerk's Office  
PO Box 1898  
Hattiesburg, MS 39403



## **INFORMATION FOR BIDDERS**

BIDS will be received by the CITY OF HATTIESBURG, MISSISSIPPI herein called the "OWNER", at City Hall until 10:00 A.M. on June 28, 2018, and then at said office publicly opened and read aloud.

Each BID must be submitted in sealed envelope, addressed to the City Clerk of said City. Each sealed envelope containing a BID must be plainly marked on the outside as BID for **Infrastructure Rehabilitation, Arledge Street & Katie Avenue Area, Hattiesburg, Mississippi** and the envelope should bear on the outside the BIDDER'S name, address, and license number if applicable. If forwarded by mail, the sealed BID shall be included in a delivery package addressed to the Owner at 200 Forrest Street, Hattiesburg, MS 39401.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be completed and executed when submitted. Only one copy of the BID form is required.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 60 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period; the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID Schedule by examination of the site and a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING, all information which is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a BID BOND payable to the OWNER for five percent (5%) of the total amount of the BID. As soon as the BID prices have been compared, the



OWNER will return the BONDS of all except the three lowest responsive, responsible BIDDERS. When the Agreement is executed the BONDS of the two remaining unsuccessful BIDDERS will be returned. The BID BOND of the successful BIDDER will be retained until the PAYMENT BOND and PERFORMANCE BOND have been executed and approved, after which it will be returned. A certified check may be used in lieu of a BID BOND.

A PERFORMANCE BOND and a PAYMENT BOND, each in the amount of 100 percent (100%) of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign BID BONDS or PAYMENT BONDS and PERFORMANCE BONDS must file with each BOND a certified and effective dated copy of their Power of Attorney.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the PERFORMANCE BOND and PAYMENT BOND within ten (10) calendar days from the date when NOTICE OF AWARD shall be accompanied by the necessary Agreement and BOND forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the property of the OWNER.

The OWNER within ten (10) days of receipt of acceptable PERFORMANCE BOND, PAYMENT BOND and Agreement signed by the party to whom the Agreement was awarded, shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE withdraw the signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period; the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as deemed necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted.

Award will be made to the lowest responsible BIDDER.

All applicable Laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his BID.

FURTHER, the BIDDER agrees to abide by the requirements under Executive Order No. 11246, as amended, including specifically the provisions of the equal opportunity clause set forth in the SUPPLEMENTAL GENERAL CONDITIONS.

The low BIDDER shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when required to do so by the OWNER.

The ENGINEER is SHOWS, DEARMAN & WAITS, INC. The address of the ENGINEER is 301 2nd Avenue, Hattiesburg, MS 39401.



## **PROPOSAL FORM**

I (we) agree to begin work within (10) calendar days after the issuance of Work Order, and to complete the work within \_\_\_\_ calendar days thereafter.

It is understood that the quantities of work listed for unit prices bid are approximate, and are intended to merely indicate the general scope of the various items entering into the complete work. It is further understood and agreed that the Owner may increase or decrease the quantities listed in the Proposal to an extent equivalent to 30% of the bid price (in dollars) and that no change in the unit prices proposed shall be occasioned thereby.

The undersigned further agrees that the unit and lump sum prices quoted include all items of work required or necessary for the accomplishment of the projected work and that these items include all work indicated on the Plans and Specifications for which no specific pay items have been established.

The undersigned certifies that the bid prices contained herein have been carefully checked and are submitted as correct and final.

If within sixty (60) days the scheduled closing time for receipt of bids, this Proposal is accepted, the undersigned will execute a formal contract within ten (10) days after official notification thereof, will deliver a surety bond for the faithful performance of this contract, and will complete the work within the time specified from the date of execution of the contract.

Respectfully Submitted,

---

Name of Firm or Bidder

By:

---

Address

---

City, State, Zip-Code

**Note:** All materials and components shall be a product of the U.S.A.

**PROPOSAL**  
**INFRASTRUCTURE REHABILITATION**  
**ARLEDGE STREET & KATIE AVENUE AREA**  
**HATTIESBURG, MISSISSIPPI**

| <b>Arledge Street (Roadway)</b> |                                                                  |          |          |            |           |
|---------------------------------|------------------------------------------------------------------|----------|----------|------------|-----------|
| ITEM No.                        | DESCRIPTION                                                      | QUANTITY | UNIT     | UNIT PRICE | EXTENSION |
| 1                               | Clearing and Grubbing                                            | 1        | Lump Sum |            |           |
| 2                               | Removal of Asphalt Pavement, All Depths                          | 685      | Sq. Yd.  |            |           |
| 3                               | Removal of Curb &/OR Curb and Gutter, All Types                  | 707      | Lin. Ft. |            |           |
| 4                               | Removal of Utilities                                             | 1        | Lump Sum |            |           |
| 5                               | Excess Excavation, LVM, AH                                       | 65       | Cu. Yd.  |            |           |
| 6                               | Sand Bags                                                        | 150      | Each     |            |           |
| 7                               | Wattles, 20"                                                     | 150      | Lin. Ft. |            |           |
| 8                               | Granular Material (LVM) (Class 9, Group B)                       | 98       | Cu. Yd.  |            |           |
| 9                               | 9.5 mm, MT, Asphalt Pavement                                     | 197      | Ton      |            |           |
| 10                              | 19 mm, MT, Asphalt Pavement                                      | 81       | Ton      |            |           |
| 11                              | Cold Milling of Bituminous Pavement, All Depths                  | 1,479    | Sq. Yd.  |            |           |
| 12                              | Concrete Driveway, Without Reinforcement, 6" Thick, Broom Finish | 178      | Sq. Yd.  |            |           |
| 13                              | Combination Concrete Curb and Gutter, Per                        | 520      | Lin. Ft. |            |           |

|    |                                                              |                                   |          |  |  |
|----|--------------------------------------------------------------|-----------------------------------|----------|--|--|
|    | Plans                                                        |                                   |          |  |  |
| 14 | Concrete Sidewalk, Without Reinforcement                     | 386                               | Sq. Yd.  |  |  |
|    |                                                              |                                   |          |  |  |
| 15 | Class "B" Structural Concrete - Minor Structures             | 26                                | Cu. Yd.  |  |  |
| 16 | Reinforcing Steel                                            | 2,370                             | Lbs.     |  |  |
|    |                                                              |                                   |          |  |  |
| 17 | 18" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets | 312                               | Lin. Ft. |  |  |
| 18 | 24" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets | 226                               | Lin. Ft. |  |  |
| 19 | 8" Corrugated Polyethylene Pipe                              | 12                                | Lin. Ft. |  |  |
| 20 | 10" Corrugated Polyethylene Pipe                             | 12                                | Lin. Ft. |  |  |
| 21 | 12" Corrugated Polyethylene Pipe                             | 12                                | Lin. Ft. |  |  |
| 22 | Castings                                                     | 553                               | Lbs      |  |  |
|    |                                                              |                                   |          |  |  |
| 23 | 6" Thermoplastic Traffic Stripe, Continuous Yellow           | 1,490                             | Lin. Ft. |  |  |
| 24 | Thermoplastic Detail Stripe, White                           | 312                               | Lin. Ft. |  |  |
| 25 | Thermoplastic Legend, White                                  | 142                               | Lin. Ft. |  |  |
| 26 | Detectable Warning, Per Plans                                | 165                               | Sq. Ft.  |  |  |
| 27 | Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness    | 10                                | Sq. Ft.  |  |  |
| 28 | Steel U-Section Posts, 2.0 Lbs/Ft                            | 52                                | Lin. Ft. |  |  |
|    |                                                              |                                   |          |  |  |
| 29 | Maintenance of Traffic                                       | 1                                 | Lump Sum |  |  |
| 30 | Mobilization                                                 | 1                                 | Lump Sum |  |  |
|    |                                                              |                                   |          |  |  |
|    |                                                              | <b>Subtotal Arledge (Roadway)</b> |          |  |  |

| Katie Avenue (Roadway) |                                                                  |          |          |            |           |
|------------------------|------------------------------------------------------------------|----------|----------|------------|-----------|
| ITEM No.               | DESCRIPTION                                                      | QUANTITY | UNIT     | UNIT PRICE | EXTENSION |
| 1                      | Clearing and Grubbing                                            | 1        | Lump Sum |            |           |
| 2                      | Removal of Asphalt Pavement, All Depths                          | 1,782    | Sq. Yd.  |            |           |
| 3                      | Removal of Concrete Pavement, All Depths                         | 22       | Sq. Yd.  |            |           |
| 4                      | Removal of Concrete Walks, All Depths                            | 217      | Sq. Yd.  |            |           |
| 5                      | Removal of Curb &/OR Curb and Gutter, All Types                  | 440      | Lin. Ft. |            |           |
| 6                      | Removal of Utilities                                             | 1        | Lump Sum |            |           |
| 7                      | Removal of Inlet and Junction Box, All Types & Sizes             | 1        | Each     |            |           |
| 8                      | Remove and Reset Signs, All Sizes                                | 2        | Each     |            |           |
| 9                      | Excess Excavation, LVM, AH                                       | 346      | Cu. Yd.  |            |           |
| 10                     | Sand Bags                                                        | 150      | Each     |            |           |
| 11                     | Wattles, 20"                                                     | 250      | Lin. Ft. |            |           |
| 12                     | Granular Material (LVM) (Class 9, Group B)                       | 519      | Cu. Yd.  |            |           |
| 13                     | 9.5 mm, MT, Asphalt Pavement                                     | 97       | Ton      |            |           |
| 14                     | 19 mm, MT, Asphalt Pavement                                      | 312      | Ton      |            |           |
| 15                     | Cold Milling of Bituminous Pavement, All Depths                  | 20       | Sq. Yd.  |            |           |
| 16                     | Concrete Driveway, Without Reinforcement, 6" Thick, Broom Finish | 91       | Sq. Yd.  |            |           |

|    |                                                                               |       |          |  |  |
|----|-------------------------------------------------------------------------------|-------|----------|--|--|
| 17 | Concrete Driveway, Without Reinforcement, 6" Thick, Stamped and Colored       | 19    | Sq. Yd.  |  |  |
| 18 | Combination Concrete Curb and Gutter, Per Plans                               | 723   | Lin. Ft. |  |  |
| 19 | Concrete Sidewalk, Without Reinforcement, Broom Finish                        | 477   | Sq. Yd.  |  |  |
| 20 | Concrete Sidewalk, Without Reinforcement, Stamped and Colored                 | 16    | Sq. Yd.  |  |  |
| 21 | Class "B" Structural Concrete - Minor Structures                              | 42    | Cu. Yd.  |  |  |
| 22 | Reinforcing Steel                                                             | 3,568 | Lbs.     |  |  |
| 23 | 15" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets                  | 12    | Lin. Ft. |  |  |
| 24 | 18" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets                  | 230   | Lin. Ft. |  |  |
| 25 | 24" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets                  | 31    | Lin. Ft. |  |  |
| 26 | 30" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets                  | 204   | Lin. Ft. |  |  |
| 27 | 44" x 27" Reinforced Concrete Arch Pipe, Class AIII, Flexible Plastic Gaskets | 103   | Lin. Ft. |  |  |
| 28 | 51" x 31" Reinforced Concrete Arch Pipe, Class AIII, Flexible Plastic Gaskets | 255   | Lin. Ft. |  |  |
| 29 | 51" x 31" Reinforced Concrete Arch Pipe End Section                           | 1     | Each     |  |  |
| 30 | Castings                                                                      | 790   | Lbs      |  |  |
| 31 | 6" Thermoplastic Traffic Stripe, Continuous Yellow                            | 780   | Lin. Ft. |  |  |

|    |                                                           |                                 |          |  |  |
|----|-----------------------------------------------------------|---------------------------------|----------|--|--|
| 32 | Thermoplastic Detail Stripe, White                        | 336                             | Lin. Ft. |  |  |
| 33 | Thermoplastic Legend, White                               | 103                             | Lin. Ft. |  |  |
| 34 | Thermoplastic Legend, White                               | 10                              | Sq. Ft.  |  |  |
| 35 | Detectable Warning, Per Plans                             | 141                             | Sq. Ft.  |  |  |
| 36 | Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness | 20                              | Sq. Ft.  |  |  |
| 37 | Steel U-Section Posts, 2.0 Lbs/Ft                         | 78                              | Lin. Ft. |  |  |
|    |                                                           |                                 |          |  |  |
| 38 | Maintenance of Traffic                                    | 1                               | Lump Sum |  |  |
| 39 | Mobilization                                              | 1                               | Lump Sum |  |  |
|    |                                                           |                                 |          |  |  |
|    |                                                           | <b>Subtotal Katie (Roadway)</b> |          |  |  |

| <b>Traffic Signal Relocation</b> |                                                             |                         |          |             |             |
|----------------------------------|-------------------------------------------------------------|-------------------------|----------|-------------|-------------|
| ITEM No.                         | DESCRIPTION                                                 | QUANTITY                | UNIT     | UNIT PRICE  | EXTENSION   |
|                                  |                                                             |                         |          |             |             |
| 1                                | Relocation of Existing Traffic Signal Controller, Per Plans | 1                       | Lump Sum | \$50,000.00 | \$50,000.00 |
| 2                                | Removal of Existing Traffic Signal Controller Base          | 1                       | Each     | \$2,500.00  | \$2,500.00  |
|                                  |                                                             |                         |          |             |             |
| 3                                | Maintenance of Traffic                                      | 1                       | Lump Sum | \$3,000.00  | \$3,000.00  |
| 4                                | Mobilization                                                | 1                       | Lump Sum | \$6,000.00  | \$6,000.00  |
|                                  |                                                             |                         |          |             |             |
|                                  |                                                             | <b>Subtotal Traffic</b> |          |             |             |

| <b>Arledge Street (Water)</b> |                                                                 |          |          |            |           |
|-------------------------------|-----------------------------------------------------------------|----------|----------|------------|-----------|
| ITEM No.                      | DESCRIPTION                                                     | QUANTITY | UNIT     | UNIT PRICE | EXTENSION |
| 1                             | 12" Class 350 Ductile Iron Water Line (Open Cut)                | 670      | Lin. Ft. |            |           |
| 2                             | 8" Class 350 Ductile Iron Water Line (Open Cut)                 | 20       | Lin. Ft. |            |           |
| 3                             | 6" Class 350 Ductile Iron Water Line (Open Cut)                 | 20       | Lin. Ft. |            |           |
| 4                             | 4" Class 350 Ductile Iron Water Line (Open Cut)                 | 10       | Lin. Ft. |            |           |
| 5                             | 3" Sch. 80 PVC (Open Cut)                                       | 90       | Lin. Ft. |            |           |
| 6                             | 2" Sch. 80 PVC (Open Cut)                                       | 12       | Lin. Ft. |            |           |
| 7                             | 1 1/2" Sch. 80 PVC (Open Cut)                                   | 60       | Lin. Ft. |            |           |
| 8                             | 20" Steel Casing (Bored)                                        | 60       | Lin. Ft. |            |           |
| 9                             | 16" DR-11 HDPE (Open Cut)                                       | 60       | Lin. Ft. |            |           |
| 10                            | Tracer Wire System                                              | 942      | Lin. Ft. |            |           |
| 11                            | 8" Gate Valve                                                   | 1        | Each     |            |           |
| 12                            | 6" Gate Valve                                                   | 1        | Each     |            |           |
| 13                            | Connection: Proposed 12" to Existing 20" (Hot Tap W/ 12" Valve) | 1        | Each     |            |           |
| 14                            | Connection: Proposed 12" to Proposed 12" (Tee)                  | 1        | Each     |            |           |
| 15                            | Connection: Proposed 12" to Proposed 8" (Tee and Reducer)       | 1        | Each     |            |           |
| 16                            | Connection: Proposed 8" to Proposed 6" (Tee and Reducers)       | 1        | Each     |            |           |

|    |                                                                                                                             |   |                                 |  |  |
|----|-----------------------------------------------------------------------------------------------------------------------------|---|---------------------------------|--|--|
| 17 | Connection: Proposed 6" to Proposed 4" (Tee)                                                                                | 1 | Each                            |  |  |
| 18 | 3-Way Fire Hydrant with Appurtenances (Inl. Tee, Valve, Hydrant, Brass Tag, Pipe & Other Fittings)                          | 2 | Each                            |  |  |
| 19 | 6" Fire Suppression Connection                                                                                              | 3 | Each                            |  |  |
| 20 | 3" Service Tap w/ Valve for Domestic Water (Includes Tap, Valve, Curb Stop, Fittings, Valve Box, Meter, Meter Box Etc.)     | 4 | Each                            |  |  |
| 21 | 2" Service Tap w/ Valve for Domestic Water (Includes Tap, Valve, Curb Stop, Fittings, Valve Box, Meter, Meter Box Etc.)     | 1 | Each                            |  |  |
| 22 | 1 1/2" Service Tap w/ Valve for Domestic Water (Includes Tap, Valve, Curb Stop, Fittings, Valve Box, Meter, Meter Box Etc.) | 2 | Each                            |  |  |
|    |                                                                                                                             |   |                                 |  |  |
|    |                                                                                                                             |   | <b>Subtotal Arledge (Water)</b> |  |  |

| <b>Katie Avenue (Water)</b> |                                                             |                  |             |                   |                  |
|-----------------------------|-------------------------------------------------------------|------------------|-------------|-------------------|------------------|
| <b>ITEM No.</b>             | <b>DESCRIPTION</b>                                          | <b>QUANTIT Y</b> | <b>UNIT</b> | <b>UNIT PRICE</b> | <b>EXTENSION</b> |
|                             |                                                             |                  |             |                   |                  |
| 1                           | 8" Ductile Iron Water Line (Open Cut)                       | 460              | Lin. Ft.    |                   |                  |
| 2                           | 3" Sch. 80 PVC (Open Cut)                                   | 41               | Lin. Ft.    |                   |                  |
| 3                           | 1 1/2" Sch. 80 PVC (Open Cut)                               | 40               | LF          |                   |                  |
| 4                           | Tracer Wire System                                          | 541              | Lin. Ft.    |                   |                  |
| 5                           | Connection: Proposed 8" to Existing 6" (Hot Tap W/8" Valve) | 1                | Each        |                   |                  |



|   |                                                                                                                             |   |                        |  |  |
|---|-----------------------------------------------------------------------------------------------------------------------------|---|------------------------|--|--|
| 6 | 3-Way Fire Hydrant with Appurtenances (Incl. Tee, Valve, Hydrant, Brass Tag, Pipe & Other Fittings)                         | 1 | Each                   |  |  |
| 7 | 6" Fire Suppression Connection                                                                                              | 1 | Each                   |  |  |
| 8 | 3" Service Tap w/ Valve for Domestic Water (Includes Tap, Valve, Curb Stop, Fittings, Valve Box, Meter, Meter Box Etc.)     | 1 | Each                   |  |  |
| 9 | 1 1/2" Service Tap w/ Valve for Domestic Water (Includes Tap, Valve, Curb Stop, Fittings, Valve Box, Meter, Meter Box Etc.) | 1 | Each                   |  |  |
|   |                                                                                                                             |   |                        |  |  |
|   |                                                                                                                             |   | Subtotal Katie (Water) |  |  |

| Arledge Street (Sewer) |                                                |           |          |            |           |
|------------------------|------------------------------------------------|-----------|----------|------------|-----------|
| ITEM No.               | DESCRIPTION                                    | QUANTIT Y | UNIT     | UNIT PRICE | EXTENSION |
|                        |                                                |           |          |            |           |
| 1                      | 8" PVC Sewer, SDR 26 (6'-8')                   | 403       | Lin. Ft. |            |           |
| 2                      | 8" PVC Sewer, SDR 26 (8'-10')                  | 60        | Lin. Ft. |            |           |
| 3                      | 6" PVC Sewer, SDR 26 (All Depths)              | 144       | Lin. Ft. |            |           |
| 4                      | Tracer Wire System                             | 607       | Lin. Ft. |            |           |
| 5                      | 48" Diameter Precast Concrete Manhole (6'-8')  | 2         | Each     |            |           |
| 6                      | 60" Diameter Precast Concrete Manhole (8'-10') | 1         | Each     |            |           |
| 7                      | 8"x8"x6" Service Tee                           | 6         | Each     |            |           |
| 8                      | 6" PVC Cleanout                                | 6         | Each     |            |           |
| 9                      | Demolition and Removal of Existing Manhole     | 1         | Each     |            |           |

|    |                                              |     |                          |  |  |
|----|----------------------------------------------|-----|--------------------------|--|--|
| 10 | Abandonment of Existing Manhole              | 2   | Each                     |  |  |
| 11 | Select Fill Material (Class 9, Group C), LVM | 766 | C.Y.                     |  |  |
|    |                                              |     |                          |  |  |
|    |                                              |     | Subtotal Arledge (Sewer) |  |  |

| Katie Avenue & Edwards Street (Sewer) |                                                 |              |                        |            |           |
|---------------------------------------|-------------------------------------------------|--------------|------------------------|------------|-----------|
| ITEM No.                              | DESCRIPTION                                     | QUANTIT<br>Y | UNIT                   | UNIT PRICE | EXTENSION |
|                                       |                                                 |              |                        |            |           |
| 1                                     | 8" PVC Sewer, SDR 26 (8'-10')                   | 149          | Lin. Ft.               |            |           |
| 2                                     | 8" PVC Sewer, SDR 26 (10'-12')                  | 306          | Lin. Ft.               |            |           |
| 3                                     | 6" PVC Sewer, SDR 26 (All Depths)               | 81           | Lin. Ft.               |            |           |
| 4                                     | Tracer Wire System                              | 536          | Lin. Ft.               |            |           |
| 5                                     | 48" Diameter Precast Concrete Manhole (10'-12') | 1            | Each                   |            |           |
| 6                                     | 8"x8"x6" Service Tee                            | 3            | Each                   |            |           |
| 7                                     | 6" PVC Cleanout                                 | 3            | Each                   |            |           |
| 8                                     | Select Fill Material (Class 9, Group C), LVM    | 2236         | C.Y.                   |            |           |
|                                       |                                                 |              |                        |            |           |
|                                       |                                                 |              | Subtotal Katie (Sewer) |            |           |

TOTAL, BASE BID: (\$) \_\_\_\_\_

Base Bid Respectfully Submitted, Name of Firm or Bidder: \_\_\_\_\_

## **BID BOND**

KNOW ALL MEN BY THESE PRESENTS: that we, the under signed,  
\_\_\_\_\_Principal, and \_\_\_\_\_as Surety, are hereby  
held and firmly bound unto \_\_\_\_\_as Owner in the penal sum of 5%  
(Five Percent) for payment of which, well and truly to be made, we hereby jointly and  
severally bind ourselves, successors and assigns.

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

The Condition of the above obligation is such that whereas the Principal has submitted to  
a certain BID, attached hereto and hereby made a part hereof to enter into a contract in  
writing, for the following project:

### **INFRASTRUCTURE REHABILITATION ARLEDGE STREET & KATIE AVENUE AREA HATTIESBURG, MISSISSIPPI**

NOW, THEREFORE,

(a) If said BID shall be rejected, or

(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in  
the Form of Contract attached hereto (properly completed in accordance with said BID) and  
shall furnish a BOND for his faithful performance of said contract, and for the payment of  
all persons performing labor or furnishing materials in connection therewith, and shall in all  
other respects perform the agreement created by the acceptance of said BID, then this  
obligation shall be void, otherwise the same shall remain in force and effect; it being  
expressly understood and agreed that the liability of the Surety for any and all claims  
hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said  
Surety and its BOND shall be in no way impaired or affected by any extension of the time  
within which the OWNER may accept such BID; and said Surety does hereby waive notice  
of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year set forth above.

\_\_\_\_\_(L.S.)  
PRINCIPAL

\_\_\_\_\_  
SURETY

BY: \_\_\_\_\_

IMPORTANT: Surety companies executing BONDS must appear on the Treasure Department's most current line (Circular 570 as amended) and be authorized to transact business in the state where the project is located

## CONTRACT AGREEMENT

THIS AGREEMENT made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_ hereinafter called the CONTRACTOR, and the CITY OF HATTIESBURG, MISSISSIPPI hereinafter called the OWNER, Witnesseth that the Contractor and the OWNER, for the consideration hereafter named and agrees as follows.

### ARTICLE 1: SCOPE OF WORK

The Contractor agrees to furnish all tools, labor, equipment, materials, and supplies required to be furnished, and perform all work required under and in accordance with the plans entitled:

#### **INFRASTRUCTURE REHABILITATION ARLEDGE STREET & KATIE AVENUE AREA HATTIESBURG, MISSISSIPPI**

which are on file at the office of the OWNER, and the Specifications, Proposals, General and Special Conditions, attached hereto and made a part hereof as fully as though copied herein, under the direct supervision and to the entire satisfaction of the OWNER and in accordance with the Laws of the State of Mississippi.

### ARTICLE 2: THE CONTRACT SUM

It is further agreed and understood by and between the parties hereunto that the OWNER agrees to pay and the Contractor agrees to accept full and final compensation for all work done under this agreement, the lump sum amount adjusted for variation of quantities at the unit prices named in the Proposal, which is hereto attached, such payment to be made in lawful money of the United States, at the time and in the manner hereinafter set forth.

### ARTICLE 3: TIME OF COMPLETION

The Contractor agrees, for the consideration above expressed, to begin and complete the work within the time specified in the Proposal. If the Contractor fails to complete the work in the time specified, he shall pay the OWNER as **LIQUIDATED DAMAGES**, ascertained and agreed, and not in the nature of a penalty, the sum of \$ \_\_\_\_\_ for each day delayed, which shall be deducted from the final amount to be paid under the contract; provided that the extension of time with the waiver of liquidation damages may be granted as provided for in the Specifications.

#### ARTICLE 4: PROGRESS PAYMENTS

The owner agrees to make progress payments during the construction as provided herein as follows:

The ENGINEER will on or before the tenth (10th) day of each month make an estimate of the value of the work done, based on contract prices.

The OWNER agrees to pay the CONTRACTOR 100% of the value of the work done each month, less five percent (5%) RETAINAGE until final acceptance of the work has been made).

#### ARTICLE 5: ACCEPTANCE AND FINAL PAYMENT

Upon receipt of written notice that the work is ready for final acceptance and inspection, the Engineer shall promptly make such inspection, and when he finds the work acceptable under the contract, and the contract fully performed, he shall promptly issue a final certificate, over his own signature, stating that the work provided for in this Contract has been completed and is accepted by him under the terms and conditions thereof. Then, the entire balance shall be due the Contractor within sixty (60) days the date of said final acceptance.

Before issuance of final certificate, the Contractor shall submit evidence satisfactory to the ENGINEER that all payrolls, materials, bills, and other indebtedness connected with the work have been paid.

The making and acceptance of the final payment shall constitute a waiver of all claims by the OWNER, other than those arising from unsettled liens, from faulty work or materials appearing within one (1) year after payment, or claims previously made and still unsettled.

If, after the work has been substantially completed, full completion thereof is materially delayed through no fault of the Contractor, and the Engineer, so certifies, the OWNER shall, upon certificate of the Engineer and without terminating the Contract, make payment of the balance due for that portion of the work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

#### ARTICLE 6: THE PERFORMANCE BOND

The Contractor agrees to furnish a bond, with an approved surety thereon guaranteeing the performance of this contract, in no less than one hundred percent (100%) of the amount of the Contract. Said Bond shall be conditioned on full and complete performance of the Contract, and for the payment of all labor and materials for a period of one (1) year

after completion. The Surety on said Bond shall be a surety company of financial resources satisfactory to the OWNER and authorized to do business in the State of Mississippi.

#### ARTICLE 7: INSURANCE

The Contractor agrees to also carry Public Liability Insurance, Property Damage Insurance, and Workman's Compensation Insurance in amounts as required by the Specifications.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first written above.

OWNERS:

SEAL

City of Hattiesburg, Mississippi

BY \_\_\_\_\_

Title \_\_\_\_\_ ATTEST \_\_\_\_\_

CONTRACTOR:

SEAL

\_\_\_\_\_

BY \_\_\_\_\_

Title \_\_\_\_\_ ATTEST \_\_\_\_\_

## PAYMENT AND PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: THAT WE, the Undersigned (hereinafter called the Principal), a corporation, partnership or individual duly unauthorized by law to do business as a construction contractor in the State of Mississippi, and of (herein called the Surety), a corporation duly authorized to do a surety business under the laws of the State of Mississippi, are held and firmly bound unto City of Hattiesburg, (hereinafter called the Obligee), a \_\_\_\_\_ Municipality existing under the laws of the State of Mississippi, in the penal sum of \_\_\_\_\_ Dollars ( \_\_\_\_\_ ) lawful money of the United States, for the payment of which well and truly to be made, the said Principal and the said Surety do hereby bind ourselves, our heirs, executors, administrators and assigns, jointly and severally, by these presents, as follows:

The Condition of this obligation is such that; whereas Principal by an instrument in writing attached here-to and bearing date of \_\_\_\_\_ has agreed with said Obligee to do all work necessary and to furnish labor, materials, tools, supplies and services to construct **INFRASTRUCTURE REHABILITATION, ARLEDGE STREET & KATIE AVENUE AREA** as shown on the Plans and specified thereby in the Specifications, Proposal and other Contract Documents hereto attached.

NOW THEREFORE, if said Principal shall well and truly in good, sufficient and workmanlike manner, and to the satisfaction of Obligee perform and complete the work required, and shall defend, indemnify and save harmless said Obligee against all damages, claims, demands, expense and charge of every kind (including claims of patent infringement) arising out of injury or damage to persons or property by reason or arising from any act, omission or neglect of said Principal, his agent, servants or employees with relation to said work; and shall pay all cost, charges, rentals and expenses for labor, material, supplies and equipment and deliver the said improvement to Obligee completed and ready for occupancy or operation, and free from all liens, encumbrances or claims for labor, material or otherwise; and shall pay all other expenses lawfully chargeable to Obligee by reason of any default or neglect of the said Principal in the relation of said agreement and said work, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED FURTHER, that the said surety for value received hereby stipulates and agrees that no charge, extension of time, alteration or addition to the terms of the Contract, or the work to be performed hereunder, or the Specifications accompanying the same, shall in any way affect its obligation on this bond and does hereby waive notice of any change, extension of time, alteration or addition to the terms of the Contract, or to the work, or to the Specifications.



PROVIDED FURTHER, that if Principal, his or its subcontractor or subcontractors fail to duly pay for any labor, materials, team hire, sustenance provisions or any other supplies or materials used or consumed by such Principal or his, their or its subcontractors in performance of the work contracted to be done, the Surety will pay the same in any amount not exceeding the sum specified in the bond, together with interest as provided by law.

IN WITNESS THEREOF: Said Principal and surety have hereunto set their hands and seals at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

(SEAL)

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_

TITLE

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_

TITLE

\_\_\_\_\_  
PRINCIPAL

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
Name of person executing for Principal

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
SURETY

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
Name of person executing for Surety

\_\_\_\_\_  
TITLE

## **GENERAL CONDITIONS**

Wherever used in these “General Conditions” or in the other contract documents, the following terms shall have the meanings indicated, which shall be applicable to both the singular and plural thereof:

**Acceptance:** Acceptance by the owner of the work as being fully complete in accordance with the contract documents.

**Agreement:** The written agreement between the owner and the contractor covering the work to be performed; the contract documents, which are attached to and made a part of the agreement, also designated as the contract.

**Addenda:** Written or graphic instruments issued prior to the execution of the agreement, which modify and/or interpret any or all part thereof of the contract documents, drawings and specifications by addition, deletions, clarifications, and/or corrections.

**Application for Payment:** The form furnished by the engineer, which is to be used by the contractor in requesting progress payments. The “Application for Payment” form is submitted along with an affidavit by the contractor that progress payments theretofore received from the owner on account for completed work have been applied by the contractor to discharge in full all of the contractor’s obligations stated in prior “Application(s) for Payment.”

**Approval:** Accepts as satisfactory.

**Bid:** The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the work to be performed.

**Bidder:** Any person, firm, or corporation submitting a bid for the work.

**Bonds:** Bid, performance, and payment bonds and other instruments of security furnished by the contractor and contractor’s surety in accordance with the contract documents and in accordance with the law of the place/location of the project.

**Change Order:** A written order to the contractor signed by the owner authorizing an addition to, deletion of, or revision in the work, or an adjustment in the contract price or the contract time issued after execution of the agreement.

**Contract Documents:** “Advertisement for Bids; Instructions for Bidders; Contractor’s Bid; Bid Bond; Contract Agreement; General Conditions; Supplemental General Conditions; Technical Specifications; Payment Bond; Performance Bond; Notice of Award; Notice to Proceed; Change Order, and Drawings.”

**Contract Price:** The total moneys payable to the contractor under the contract documents.

**Contract Time:** The number of calendar days stated in the agreement for the completion of the work.

**Contracting Officer:** The individual who is authorized to sign the contract documents on behalf of the owner’s governing body. The contracting officer is also known as the “Owner’s Recipient.”

**Contractor:** The person, firm, or corporation with whom/which the owner has executed the agreement.

**Day:** A calendar day of twenty-four hours measured from midnight to the next midnight.

**Drawings:** The drawings that show the character and scope of the work to be performed that have been prepared or approved by the engineer and are referred to in the contract documents.

**Engineer:** The person, firm, or corporation named as such in the contract documents.

**Field Order:** A written order issued by the engineer which clarifies or interprets the contract documents in accordance with herein **Article 9**, paragraph 9.3 or orders minor changes in the work in accordance with herein **Article 10**, paragraph 10.2.

**He, His, and Him:** These are general pronouns that shall represent both male and female genders.

**Modification:** (a) A written amendment of the contract documents signed by both parties, (b) a change order, (c) a written clarification or interpretation issued by the engineer in accordance with herein **Article 9**, paragraph 9.3, or (d) a written order for a minor change or alteration in the work issued by the engineer pursuant to herein **Article 10**, paragraph 10.2. A modification may only be issued after execution of the agreement.

**Notice of Award:** The written notice by owner to the apparent successful bidder stating that upon compliance with the conditions precedent to be fulfilled by the bidder within the time specified, owner will execute and deliver the agreement to him.

**Notice to Proceed:** A written notice given by owner to contractor (with a copy to engineer) fixing the date on which the contract time will commence to run and on which the contractor shall start to perform said contractor's obligations under the contract documents.

**Owner:** A public body or authority, corporation, association, partnership, or individual for which/whom the work is to be performed.

**Project:** The entire construction to be performed as provided in the contract documents.

**Resident Project Representative:** An authorized representative of the engineer assigned to observe the work performed and materials furnished by the contractor or such other person as may be appointed by the owner as his representative. The contractor shall be notified in writing of the identity of this representative.

**Shop Drawings:** All drawings, diagrams, illustrations, brochures, schedules, and other data that are prepared by the contractor, a subcontractor, manufacturer, supplier, or distributor and which illustrate the equipment, material, or some portion of the work and as required by the contract documents.

**Samples:** Physical examples which illustrate materials, equipment, or workmanship and establish standards by which the work will be judged.

**Specifications:** Those portions of the contract documents consisting of written technical descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the work.

**Subcontractor:** An individual, firm or corporation having a direct contract with contractor or with any other subcontractor for the performance of a part of the work at the site.

**Substantial Completion:** Substantial completion may be granted for all or portions of the work prior to final completion and stopping of contract time. Substantial completion is defined as the date when the construction is sufficiently completed in accordance with the contract documents so that the project or specified part of the project can be utilized for the purpose for which it was intended. The contract provides that the retainer may be reduced for that portion of the work for which substantial completion is granted, but the granting of substantial completion will not stop contract time or liquidated damages.

**Supplemental General Conditions:** Certain conditions of this contract required by the State of Mississippi, Department of Environmental Quality and by federal laws, executive orders, and regulations on projects funded by the state revolving fund loan program.

**Supplier:** An individual who and/or firm, corporation, or other organization that supplies materials or equipment for the work - including that which is fabricated to a special design, but does not perform labor at the site.

**Special Conditions:** Special conditions refer only to the work under this contract when included as a part of the contract documents.

**Surety:** The corporate body which is bound with the contractor and which engages to be responsible for the contractor and his acceptable performance of the work.

**Work:** Any and all obligations, duties, and responsibilities necessary to the successful completion of the project assigned to or undertaken by contractor under the contract documents, including all labor, materials, equipment and other incidentals, and the furnishing thereof.

**Written Notice:** The term "Notice" or "notice" as used herein shall mean and include all written notices, demands, instructions, claims, approvals, and disapprovals required to obtain compliance with contract requirements. Written "Notice" shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or to an authorized representative of such individual, firm or corporation, or if delivered at or sent by registered mail to the last business address known to him who gives the "Notice." Unless otherwise stated in writing, any "Notice" to or demand upon the owner under this contract shall be delivered to the owner through the engineer.

## ARTICLE 2

### PRELIMINARY MATTERS

#### 2.1 Award

The award of the contract, if it is awarded, will be to the lowest responsive, responsible bidder. No "Notice of Award" will be given until the owner has concluded such investigations as he deems necessary to establish the responsibility, qualifications, and financial ability of the bidders to do the work in accordance with the contract documents to the satisfaction of the owner within the time prescribed. The owner reserves the right to reject the bid of any bidder who does not pass such investigation to the owner's satisfaction. In analyzing bids, the owner may take into consideration alternates and unit prices, if requested by the bid forms. If the contract is awarded, the owner will issue the "Notice of Award" and give the successful bidder a contract for execution within sixty (60) days after the opening of bids.

#### 2.2 Execution of Agreement

At least three counterparts of the agreement and such other contract documents will be executed and delivered by the contractor to the owner within ten (10) calendar days of receipt from the owner.

### **2.3 Forfeiture of Bid Security**

Failure of the successful bidder to execute and deliver the agreement and deliver the required bonds as stipulated herein in **Article 2**, paragraph 2.2 shall be just cause for the owner to annul the "Notice of Award" and declare the bid and any security therefore forfeited.

### **2.4 Contractor's Pre-Start Representations**

Contractor represents that he has familiarized himself with, and assumes full responsibility for having familiarized himself with, the nature and extent of the contract documents, work, locality, and with all local conditions and federal, state, and local laws, ordinances, rules, and regulations that may in any manner affect performance of the work, and represents that he has correlated his study and observations with the requirements of the contract documents. Contractor also represents that he has studied all surveys and investigation reports of subsurface and latent physical conditions referred to in the specifications and made such additional surveys and investigations as he deems necessary for the performance of the work at the contract price in accordance with the requirements of the contract documents and that he has correlated the results of all such data with the requirements of the contract documents.

### **2.5 Commencement of Contract Time**

The contract time will commence to run no more than fifteen (15) days after issuance of the "Notice to Proceed."

### **2.6 Starting the Project**

Contractor shall start to perform his obligations under the contract documents on the date when the contract time commences to run. No work shall be done at the site prior to the date on which the contract time commences to run, except with the written consent of the owner.

### **2.7 Before Starting Construction**

Before undertaking each part of the work, the contractor shall carefully study and compare the contract documents and check and verify pertinent figures shown thereon and all applicable field measurements. The contractor shall at once report in writing to the engineer any conflict, error or discrepancy which he may discover; however, the contractor shall not be liable to the owner or engineer for contractor's failure to discover any conflict, error, or discrepancy in the drawings or specifications.

## **2.8 Schedule of Completion**

Within ten (10) days after delivery of the “Notice to Proceed” by the owner to the contractor, the contractor shall submit to the engineer an estimated progress schedule with earnings indicating the starting and completion dates of the various stages of the work and a preliminary schedule of shop drawing submissions. (See herein **Article 6**, paragraphs 6.22 through 6.26.) The engineer shall review and return said progress schedule or require revisions thereto within fourteen (14) days of its submittal. The responsibility for coordinating the work of all contractors shall be as provided in the special conditions if there is more than one contractor involved in a project.

## **2.9 Preconstruction Conference**

Prior to starting the work at the site, a preconstruction conference will be held to review the above-mentioned schedules to establish procedures for handling shop drawings and other submissions, for processing applications for payment, and to establish a working understanding between the parties as to the project. Present at the conference will be the owner or owner’s representative, the engineer, resident project representatives, contractor, and contractor’s superintendent.

## **2.10 Qualification of Subcontractors, Material-Men, and Suppliers**

Within ten (10) working days after bid opening, the contractor will (if required) submit to the owner and the engineer for acceptance a list of the names of subcontractors and such other persons and organizations (including those who are to furnish principal items of materials or equipment) proposed for those portions of the work to which the identity of the subcontractors and other persons and organizations must be submitted as specified in the contract documents.

Within thirty (30) working days after receiving said list, the engineer will notify the contractor in writing if either the owner or the engineer, after due investigation, has reasonable objection to any subcontractor, person, or organization on said list. The failure of the owner or the engineer to make objection to any subcontractor, person, or organization on said list within thirty (30) days of receipt shall constitute an acceptance of such subcontractor, person, or organization. Acceptance of any such subcontractor, person, or organization shall not constitute a waiver of any right of the owner or the engineer to reject defective work, material, or equipment, or any work, material, or equipment not in conformance with the requirements of the contract documents.

# **ARTICLE 3**

## **CORRELATION, INTERPRETATION and INTENT of CONTRACT DOCUMENTS**

### **3.1 Intent**

It is the intent of the specifications and drawings to describe a complete project to be constructed in accordance with the contract documents. The contract documents

comprise the entire agreement between the owner and the contractor. The contract documents may be altered only by a modification.

### **3.2 Binding of Contract Documents**

The contract documents are complementary; what is called for by one is as binding as if called for by all. If the contractor finds a conflict, error, or discrepancy in the contract documents, contractor shall call it to the engineer's attention in writing at once and before proceeding with the work affected thereby; however, contractor shall not be liable to owner or engineer for contractor's failure to discover any conflict, error, or discrepancy in the specifications or drawings. The various contract documents shall be given precedence, in case of conflict, error, or discrepancy, as follows: supplemental general conditions; agreement modifications; addenda; special conditions; information to bidders; general conditions; technical specifications, and drawings. If the requirements of other contract documents are more stringent than of the supplemental general conditions, the more stringent requirements shall apply.

### **3.3 Similar Words Interpretation**

The words "furnish," "Required," "furnish and install," "install," and "provide" or words with similar meaning shall be interpreted, unless otherwise specifically stated, to mean "furnish and install-- complete in place and ready for service."

### **3.4 Miscellaneous Items and Accessories**

Miscellaneous items and accessories that are not specifically mentioned that are essential to produce a complete and properly operating installation or usable structure or plant providing the indicated function shall be furnished and installed without change in the contract price. Such miscellaneous items and accessories shall be of the same quality standards, including material, style, finish, strength, class, weight, and other applicable characteristics as specified for the major component of which the miscellaneous item or accessory is an essential part and shall be approved by the engineer before installation. The above requirement is not intended to include major components not covered by or inferable from the drawings and specifications.

### **3.5 Coordination of Work**

The work of all trades under this contract shall be coordinated by the contractor in such a manner as to obtain the best workmanship possible for the entire project, and all components of the work shall be installed or erected in accordance with the best practices of the particular trade.

### **3.6 Manufacturer's Literature and Agency/Organization Codes**

Manufacturer's literature, when referenced, shall be dated and numbered and is intended to establish the minimum requirements acceptable. Whenever reference is given to codes, standard specifications, or other data published by regulating agencies or accepted organizations, including but not limited to, national electrical code,



applicable state building code, federal specifications, ASTM Specifications, various institute specifications, and the like, it shall be understood that such reference is to the latest edition including addenda in effect on the date of bid.

### **3.7 Brand Names**

Brand names, where used in the technical specifications, are intended to denote the standard of quality required for the particular material or product. The term "equal" or "equivalent" when used in connection with brand names shall be interpreted to mean a material or product that is similar and equal in type, quality, size, capacity, composition, finish, color, and other applicable characteristics to the material or product specified by trade name and that is suitable for the same use and capable of performing the same function in the opinion of the engineer as the material or product so specified. It shall be understood by all bidders that "or equal" products may be used for all brands specified unless specifically noted otherwise. Proposed equivalent items must be approved by the engineer before they are purchased or incorporated in the work. (When a brand name, catalog number, model number, or other identification is used without the phrase "or equal," the contractor shall assume the phrase "or equal.")

## **ARTICLE 4**

### **AVAILABILITY OF LANDS; SUBSURFACE CONDITIONS; REFERENCE POINTS**

#### **4.1 Availability of Lands**

The owner will furnish, as indicated in the contract documents, the lands upon which the work is to be done, rights-of-way for access thereto, and such other lands which are designated for the use of the contractor. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the owner unless otherwise specified in the contract documents. Other access to such lands or rights-of-way for the contractor's convenience shall be the responsibility of the contractor. The contractor will provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

#### **4.2 Surveys and Test**

The owner will, upon request, furnish to the bidder(s) copies of all available boundary surveys and subsurface tests at no cost.

#### **4.3 Subsurface Conditions**

The contractor acknowledges that he has investigated conditions prior to bidding and is satisfied with said conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of

labor, water, electric power, roads, and uncertainties of weather, river stages, tides, water tables or similar physical conditions at the site, the conformation and conditions of the ground, and the character of equipment and facilities needed preliminary to and during prosecution of the work. The contractor further acknowledges that he has satisfied himself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done on behalf of the owner on the site or any contiguous site, as well as from information presented by the drawings and specifications made a part of this contract, or any other information made available to said contractor prior to receipt of bids. Any failure by the contractor to acquaint himself with the available information will not relieve said contractor from responsibility for estimating properly the difficulty or cost of successfully performing the work. The owner assumes no responsibility for any conclusions or interpretations made by the contractor on the basis of the information made available by the owner.

#### **4.4 Differing Site Conditions**

**4.4.1** The contractor shall promptly, and before such conditions are disturbed, notify the owner in writing of: (1) subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or (2) unknown physical conditions at the site and/or of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this contract. The owner shall promptly investigate the conditions, and if he finds that such conditions do materially so differ and cause an increase or decrease in the contractor's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the contract modified in writing accordingly.

**4.4.2** No claim of the contractor under this clause shall be allowed unless the contractor has given the notice required in (a) above; provided, however, the time prescribed thereof may be extended by the owner.

**4.4.3** No claim by the contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this contract.

### **ARTICLE 5**

#### **BONDS AND INSURANCE**

##### **5.1 Performance and Payment Bonds**

The contractor's attention is directed to the instructions for bidders, the performance bond, and the payment bond as contained in the contract documents.

##### **5.2 Contractor's Liability Insurance**

The contractor shall provide the owner with insurance certificates certifying that all required liability insurance is in force, and such insurance certificates shall include provisions that the insurance shall not be canceled, allowed to expire, or be materially changed without giving the owner advance notice by registered mail.

### **5.3 Sublet Work**

The contractor agrees that if any part of the work under the contract is sublet, he will require the subcontractor(s) to carry insurance as required, and that the contractor will require the subcontractor(s) to furnish to contractor insurance certificates similar to those required by the owner in above listed paragraph 5.2 (a).

### **5.4 Owner's Liability Insurance**

The owner will be responsible for purchasing and maintaining owner's own liability insurance and, at his option, may purchase and maintain such insurance as will protect him against claims which may arise from operations under the contract documents.

### **5.5 Fire and Extended Coverage Insurance (Builders' Risk)**

The contractor shall maintain, as applicable, with an insurance company or insurance companies acceptable to the owner, fire, extended coverage, and vandalism and malicious mischief insurance on buildings and structures while in the course of construction including foundations, additions, attachments and all permanent fixtures belonging to and constituting a part of said buildings or structures. The policy or policies shall also cover machinery if the cost of machinery is included in the contract. The amount of insurance must be at all times at least equal to the actual cash value of the insured property. The policy shall be in the name of the owner and the contractor, as their interests may appear, and shall also cover the interests of all subcontractors performing work.

### **5.6 Flood Insurance**

The contractor shall maintain, as applicable, with an insurance company or insurance companies acceptable to the owner, any flood insurance made available under the US National Flood Insurance Act of 1968, as amended. This requirement applies only to insurable improvements with a value in excess of ten thousand dollars (\$10,000.00 USD) located inside the boundaries of a special flood hazard area delineated on a flood hazard boundary map or flood insurance rate map which has been issued by the Department of Housing and Urban Development and the Federal Insurance Administration. The insurance shall be in an amount at least equal to the total eligible project costs located within the flood hazard area, or to the maximum limit of coverage made available under the National Flood Insurance Act of 1968, as amended, whichever is less, for the entire life of the contract.

### **5.7 Evidence of Insurance**

The contractor shall provide the owner with satisfactory evidence certifying that the foregoing insurance is in force, and such evidence shall include provisions that the insurance shall not be canceled, allowed to expire, or be materially changed without giving the owner advance notice by registered mail.

### **5.8 Cancellation and Re-Insurance**

If any insurance should be canceled or changed by the insurance company or should any insurance expire during the period of this contract, the contractor shall be responsible for securing other acceptable insurance to provide the coverage specified in this section to maintain continuous coverage during the life of this contract.

## **ARTICLE 6**

### **CONTRACTOR'S RESPONSIBILITIES**

#### **6.1 Supervision and Superintendence**

The contractor will supervise and direct the work. The contractor will be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The contractor will employ and maintain on the work a qualified supervisor or superintendent who shall have been designated in writing by the contractor as the contractor's representative at the site. The supervisor shall have full authority to act on behalf of the contractor, and all communications given to the supervisor shall be as binding as if given to the contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work. (Copies of written communications given to the superintendent shall be mailed to the contractor's home office).

#### **6.2 Labor, Materials, and Equipment**

The contractor will provide competent, suitable, qualified personnel to survey and lay-out the work and perform construction as required by the contract documents. Contractor will at all times maintain good discipline and order at the site.

#### **6.3 Contractor to Furnish**

The contractor will furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, local telephone, water, sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation, and completion of the work.

#### **6.4 Condition of Materials and Equipment**

All materials and equipment will be new except as otherwise provided in the contract documents. When special makes or grades of material which are normally packaged by the supplier or manufacturer are specified or approved, such materials shall be delivered to the site in their original packages or container with seals unbroken and labels intact.

## **6.5 Materials and Equipment Specifications**

All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, or processors, except as otherwise provided in the contract documents.

## **6.6 Materials, Equipment, Products, and Substitutions**

**6.6.1** Materials, equipment, and products incorporated in the work must be approved for use before being purchased by the contractor. The contractor shall submit to the engineer a list of proposed materials, equipment, or products, together with such samples as may be necessary for contractor to determine said materials, equipment or products acceptability and obtain engineer's approval within ninety (90) calendar days after award of contract unless otherwise stipulated in the special conditions. No request for payment for "or equal" equipment will be approved until this list has been received and approved by the engineer.

**6.6.2** Whenever a material, article, or piece of equipment is identified on the drawings or specifications by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance of other salient requirements and that other products of equal capacities, quality, and function shall be considered. The contractor may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the contract documents by reference to brand name or catalogue number, and if, in the opinion of the engineer, such material, article, or piece of equipment is of equal substance and function to that specified, the engineer may approve its substitution and use by the contractor. Incidental changes or extra component parts required to accommodate the substitute will be made by the contractor without a change in the contract price or contract time.

**6.6.3** No substitute shall be ordered or installed without the written approval of the engineer, who shall be the judge of equality.

**6.6.4** Delay caused by obtaining approvals for substitute materials will not be considered justifiable grounds for an extension of construction time.

**6.6.5** Should any work or materials, equipment, or products not conform to requirements of the drawings and specifications or become damaged during the progress of the work, such work or materials shall be removed and replaced together with any work disarranged by such alterations at any time before completion and acceptance of the project. All such work shall be done at the expense of the contractor. (See herein **Article 7**, paragraph 7.10.)

**6.6.6** No materials or supplies for the work shall be purchased by the contractor or by a subcontractor subject to any chattel mortgage or under a conditional sale or

other agreement by which an interest is retained by the seller. The contractor warrants that he has good title to all materials and supplies used by him in the work.

#### **6.7 Concerning Subcontractors**

The contractor will not employ any subcontractor, other person, or organization of the types referred to in herein **Article 2**, paragraph 2.10 (whether initially or as a substitute) against whom the owner or the engineer may have reasonable objection, nor will the contractor be required to employ any subcontractor against whom contractor has reasonable objection. The contractor will not make any substitution for any subcontractor who has been accepted by the owner and the engineer unless the engineer determines there is good cause for doing so.

#### **6.8 Contractor's Responsibility for (Direct and Indirect) Personnel**

The contractor shall be fully responsible for all acts and omissions of his subcontractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that contractor is responsible for the acts and omissions of persons directly employed by him. Nothing in the contract documents shall create any contractual relationship between owner or engineer and any subcontractor or other person or organization having a direct contract with contractor, nor shall it create any obligation on the part of owner or engineer to pay or to see to the payment of any moneys due any subcontractor or other person or organization, except as may otherwise be required by law. Owner or engineer may furnish to any subcontractor or other person or organization, to the extent practicable, evidence of amounts paid to contractor on account of specific work done in accordance with the schedule of values.

#### **6.9 Drawings Disassociation of Work Delegation**

The divisions and sections of the specifications and the identifications of any drawings shall not control the contractor in dividing the work among subcontractors or delineating the work to be performed by any specific trade.

#### **6.10 Binding Subcontractors to Contract**

The contractor agrees to bind specifically every subcontractor to the applicable terms and conditions of the contract documents for the benefit of the owner.

#### **6.11 Contractor and Subcontractor Agreement**

All work performed for the contractor by a subcontractor shall be pursuant to an appropriate agreement between the contractor and the subcontractor.

#### **6.12 Contractor's Responsibility When Delegating Work**

**6.12.1** The contractor shall be responsible for the coordination of the trades, subcontractors, and material-men engaged upon contractor's work.

**6.12.2** The contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the contractor by the terms of these general conditions and other contract documents insofar as applicable to the work of subcontractors and to give the contractor the same power as regards to terminating any subcontract that the owner may exercise over the contractor under any provisions of the contract documents.

**6.12.3** The owner or engineer will not undertake to settle any differences between the contractor and his subcontractors or between subcontractors.

**6.12.4** The subcontractor shall be replaced if and when directed in writing if, in the opinion of the engineer, any subcontractor on the project proves to be incompetent or otherwise unsatisfactory.

### **6.13 Patent Fees and Royalties**

The contractor will pay all license fees and royalties and assume all costs incident to the use of any invention, design, process, or device that is the subject of patent rights or copyrights held by others. He will indemnify and hold harmless the owner and the engineer and anyone directly or indirectly employed by either of them from and against all claims, damages, losses, and expenses (including attorney's fees) arising out of any infringement of such rights during or after completion of the work, and shall defend all such claims in connection with any alleged infringement of such rights.

### **6.14 Patent Rights and Royalties**

The contractor shall be responsible for determining the application of patent rights and royalties on materials, appliances, articles, and/or systems prior to bidding. However, he shall not be responsible for such determination on systems that do not involve purchase by him of materials, appliances, and articles.

### **6.15 Permits**

The contractor will secure and pay for all construction permits and licenses and will pay all governmental charges and inspection fees necessary that are applicable at the time of his bid for the prosecution of the work. There will be no charges to the contractor when such charges are normally made by the owner and when so stated in the special conditions. The owner shall assist the contractor, when necessary, in obtaining such permits and licenses. The contractor will also pay all public utility charges.

### **6.16 Laws and Regulations**

The contractor will give all notices and comply with all laws, ordinances, rules, and regulations applicable to the work. If the contractor observes that the specifications or drawings are at variance therewith, he will give the engineer prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate modification. If

the contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without such notice to the engineer, he will bear all costs arising therefrom; however, it shall not be his primary responsibility to make certain that the drawings and specifications are in accordance with such laws, ordinances, rules, and regulations.

#### **6.17 Taxes**

Cost of all sales and other taxes for which the contractor is liable under the terms of the contract shall be included in the contract price stated by the contractor.

#### **6.18 Record Drawings**

The contractor will keep one record copy of all specifications, drawings, addenda, modifications, and shop drawings at the site in good order and annotated to show all changes made during the construction process. These complete drawings shall be available to the engineer and shall be delivered to him for the owner upon completion of the project. It shall be used for this purpose only.

#### **6.19 Safety and Protection**

The contractor will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. The contractor will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury, or loss to

**6.19.1** all employees on the work job and other persons who may be affected thereby;

**6.19.2** all the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and

**6.19.3** other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

#### **6.20 Preventative Measures**

The contractor will designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the contractor's superintendent unless otherwise designated in writing by the contractor to the owner.

#### **6.21 Emergencies**

In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the contractor, without special instruction or authorization from the engineer or owner, is obligated to act at his discretion to prevent threatened damage, injury, or loss. He will give the engineer prompt written notice of any significant changes in the work or deviations from the contract documents caused thereby, and a change order shall thereupon be issued covering the changes and deviations involved. If the



contractor believes that additional work done by him in an emergency which arose from causes beyond his control entitles him to an increase in the contract price or an extension of the contract time, he may make a claim therefore as provided herein in **Articles 11 and 12.**

#### **6.22 Shop Drawings and Samples**

After checking and verifying all field measurements, the contractor will submit to the engineer for review copies (or at the engineer's option, one reproducible copy) of all shop drawings in accordance with the accepted schedule of shop drawing submissions (see herein **Article 2**, paragraph 2.8), which shall have been checked by and stamped with the approval of the contractor. The data shown on the shop drawings will be complete with respect to dimensions, design criteria, materials of construction and the like to enable the engineer to review the information as required.

#### **6.23 Submittal of Samples**

The contractor will also submit to the engineer for review, with such promptness as to cause no delay in work, all samples required by the contract documents. All samples will have been checked by and stamped with the approval of the contractor, identified clearly as to material, manufacturer and pertinent catalog numbers, and the use for which intended.

#### **6.24 Drawing or Sample Deviations from Contract**

At the time of each submission, the contractor will, in writing, bring to the engineer's attention any deviations that the shop drawings or sample may have from the requirements of the contract documents.

#### **6.25 Engineer's Review of Submitted Drawings and Samples**

The engineer will review with reasonable promptness shop drawings and samples, but his review shall be only for conformance with the design concept of the project and for compliance with the information given in the contract documents. The review of a separate item as such will not indicate review of the assembly in which the item functions. The contractor will make any corrections required by the engineer and will return the required number of corrected copies of shop drawings and resubmit new samples until the review is satisfactory to the engineer. The contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions other than the corrections called for by the engineer on previous submissions. The contractor's stamp of approval on any shop drawing or sample shall constitute a representation to the owner and the engineer that the contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalogue numbers and similar data, or he assumes full responsibility for doing so and that he has reviewed or coordinated each shop drawing or sample with the requirements of the work and the contract documents.

#### **6.26 Commencement of Work of Submission(s)**

No work requiring a shop drawing or sample submission shall be commenced until the submission has been reviewed and approved by the engineer. A copy of each shop drawing and each approved sample shall be kept in good order by the contractor at the site and shall be available to the engineer.

#### **6.27 Contractor's Responsibility of Submission(s)**

The engineer's review of shop drawings or samples shall neither relieve the contractor from his responsibility for any deviations from the requirements of the contract documents unless the contractor has, in writing, called the engineer's attention to such deviation at the time of submission and the engineer has given written approval to the specific deviation, nor shall any review by the engineer relieve the contractor from responsibility for errors or omissions in the shop drawings.

#### **6.28 Site Clean-Up**

The contractor shall clean up behind the work as much as is reasonably possible as the work progresses. Upon completion of the work, and before acceptance of and final payment for the project by the owner, the contractor shall remove all his surplus and discarded materials, excavated material, and rubbish from the roadways, sidewalks, parking areas, lawns, and all adjacent property; shall clean his portion of work involved in any building under this contract so that no further cleaning by the owner is necessary prior to his occupancy; shall restore all property, both public and private, that has been disturbed or damaged during the prosecution of the work, and shall leave the whole in a neat and presentable condition.

#### **6.29 Building Clean-Up**

Clean-up operations shall consistently be carried on by the contractor at all times to keep the premises free from accumulation of waste materials and rubbish. Upon completion of the work he shall remove all rubbish, tools, scaffolding, surplus materials, etc., from the building and shall leave his work "broom clean," or its equivalent, unless more exactly specified elsewhere in the contract. The general contractor shall do the following special cleaning for all trades upon completion of the work:

**6.29.1** remove putty stains and paint from and wash and polish all glass. Do not scratch or otherwise damage glass.

**6.29.2** remove all marks, stains, fingerprints and other soil and dirt from painted, stained, and decorated work.

**6.29.3** remove all temporary protections and clean and polish floors.

**6.29.4** clean and polish all hardware for all trades; this shall include removal of all stains, dust, dirt, paint, etc.

### **6.30 General Clean-Up**

In case of dispute, the owner may remove the rubbish and charge the cost to the several contractors as the engineer shall determine to be just.

### **6.31 Public Convenience and Safety**

The contractor shall, at all times, conduct the work in such a manner as to insure the least practicable obstruction to public travel. The convenience of the general public and of the residents along and adjacent to the area of the work shall be provided for in a satisfactory manner consistent with the operation and local conditions. "Street Closed" signs shall be placed immediately adjacent to the work in a conspicuous position at such locations as traffic demands. At any time that streets are required to be closed, the contractor shall notify law enforcement agencies, fire departments, and parties operating emergency vehicles before the street is closed and again as soon as it is opened. Access to fire hydrants and other fire extinguishing equipment shall be provided and maintained at all times.

### **6.32 Sanitary Provisions**

The general contractor shall furnish necessary toilet conveniences secluded from public observation for use of all personnel on the work site, whether or not in his employ. They shall be kept in a clean and sanitary condition and shall comply with the requirements and regulations of the public authorities having jurisdiction. The general contractor shall commit no public nuisance. Temporary sanitary facilities shall be removed upon completion of the work and the premises shall be left clean.

### **6.33 Indemnification**

The contractor will indemnify and hold harmless the owner and the engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of work, provided that any such claim, damage, loss or expense is (a) attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than work itself) including the loss of use resulting therefrom, and (b) caused in whole or in part by any negligent act or omission of the contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

### **6.34 Claims Against Owner or Engineer**

In any and all claims against the owner or the engineer or any of their agents or employees, by an employee of the contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under herein **Article 6**, paragraph 6.33 shall not be limited in any way by any limitation on the amount or type of damages, compensation

or benefits payable by or for the contractor or any subcontractor under workmen's compensation acts, disability benefit acts, or other employees benefit acts.

### **6.35 Contractor's Liability Obligations**

The obligations of the contractor under herein **Article 6**, paragraph 6.34 shall not extend to the liability of the engineer's negligent acts, errors, or omissions or those of his employees or agents.

### **6.36 Responsibility for Connecting to Existing Work**

It shall be the express responsibility of the contractor to connect his work to each part of the existing work or work previously installed as required by the drawings and specifications to provide a complete installation.

### **6.37 Work in Street, Highway, and Other Rights-of-Way**

Excavation, grading, fill, storm drainage, paving, and any other construction or installations in rights-of-way of streets, highways, public carrier lines, utility lines (either aerial, surface or subsurface), etc., shall be done in accordance with requirements of federal, state, and local laws. The owner will be responsible for obtaining all permits necessary for the work. Upon completion of the work, contractor shall present to engineer certificates, in triplicate, from the proper authorities stating that the work has been done in accordance with their requirements.

**6.37.1** The owner will cooperate with the contractor in obtaining action from any utilities or public authorities involved in the above requirements.

**6.37.2** The engineer shall be responsible for obtaining elevations of curbs and gutters, pavements, storm drainage structures, and other such items as soon as grading operations are begun on the site and, in any case, sufficiently early in the construction period to prevent any adverse effect on the project.

**6.37.3** Any variation from the requirements of paragraph 6.37.2 above shall be stated in the "Special Conditions."

### **6.38 Cooperation with Governmental Departments, Public Utilities, Etc.**

The contractor shall be responsible for making all necessary arrangements with governmental departments, public utilities, public carriers, service companies, and corporations owning or controlling roadways, railways, water, sewer, gas, electrical, telephone, and telegraph facilities such as pavements, tracks, piping, wires, cables, conduits, poles, guys, etc., including incidental structures connected therewith that are encountered in the work so that such items may be properly shored, supported, and protected, or the contractor may relocate them if he so desires. The contractor shall give all proper notices, shall comply with requirements of such parties in the performance of his work, shall permit entrance of such parties on the project in order that they may perform their necessary work, and shall pay all charges and fees made by such parties for this work.

**6.38.1** The contractor's attention is called to the fact that there may be delays on the project due to work to be done by governmental departments, public utilities, and others in repairing or moving poles, conduits, etc. The contractor shall cooperate with the above parties in every way possible so that the construction can be completed in the least possible time.

**6.38.2** The contractor shall have made himself familiar with all codes, laws, ordinances, and regulations that in any manner affect those engaged or employed in the work, or materials and equipment used in or upon the work, or in any way affect the conduct of the work, and no plea of misunderstanding will be considered on account of his ignorance thereof.

### **6.39 Use of Premises**

The contractor shall confine his apparatus, storage of materials, and operations of his workmen to limits indicated by law, ordinances, permits, and directions of engineer and owner, and shall not unnecessarily encumber any part of the site.

**6.39.1** Contractor shall not overload or permit any part of any structure to be loaded with such weight as will endanger its safety, nor shall he subject any part of the work to stresses or pressures that will endanger it.

**6.39.2** Contractor shall enforce owner's instructions in connection with signs, advertisements, fires, and smoking.

**6.39.3** Contractor shall arrange and cooperate with owner in routing and parking of automobiles of his employees, subcontractors and other personnel, and in routing material delivery trucks and other vehicles to the project site.

### **6.40 Protection of Existing Property Improvements**

Any existing surface or subsurface improvements, such as pavements, curbs, sidewalks, pipes or utilities, footings or structures (including portions thereof), and/or trees and shrubbery not indicated on the drawings or noted in the specifications as being removed or altered shall be protected from damage during construction of the project. Any such improvements damaged during construction of the project shall be restored to a condition equal to that existing at time of award of contract.

### **6.41 Temporary Heat**

The general contractor shall provide heat, fuel, and services as necessary to protect all work and materials within all habitable areas of permanent building construction for all contracts against injury from dampness and cold until final acceptance of all work and materials for the project --unless building is fully occupied by the owner prior to such acceptance in which case the owner shall assume all expenses of heating from date of

full occupancy. In areas outside those covered above, each prime contractor shall be responsible for providing such temporary heat, fuel, and services as required to protect his work or shall make all necessary arrangements with the general contractor for providing such temporary heat, fuel, and services. Unless otherwise specifically permitted by stated special conditions, the permanent heating system shall not be used to provide temporary heat. Contractor's proposed methods of heating shall be submitted for approval.

## **ARTICLE 7**

### **WORK BY OTHERS**

#### **7.1 Additional Related Work**

The owner may perform additional work related to the project by himself, or he may let other direct contracts thereof that shall contain general conditions similar to these herein. The contractor will afford the other contractors who are parties to such direct contracts (or the owner, if he is performing the additional work himself) reasonable opportunity for the introduction and storage of materials and equipment and the execution of work and shall properly connect and coordinate his work with theirs.

#### **7.2 Report of Defects or Deficiencies**

If any part of the contractor's work depends on proper execution or results upon the work of any such other contractor (or the owner), the contractor will promptly report to the engineer in writing any defects or deficiencies in such work that render it unsuitable for such proper execution and results.

#### **7.3 Altering the Work of Others**

The contractor will do all cutting, fitting, and patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by such other work. The contractor will not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of the engineer and of the other contractors whose work will be affected.

#### **7.4 Prior Written Notice of Additional Work**

If the performance of additional work by other contractors or the owner is not noted in the contract documents prior to the execution of the contract, written notice thereof shall be given to the contractor prior to starting any such additional work. If the contractor believes that the performance of such additional work by the owner or others involves him in additional expense or entitles him to an extension of the contract time, he may make a claim as provided herein in **Articles 11 and 12**.

#### **7.5 Contractor's Allowance for Work of Others**

Where practicable, the general contractor shall build around the work of other separate contractors or shall leave chases, slots, and holes as required to receive and to conceal

within the general construction work the work of such other separate contractors as directed by them. Where such chases, slots, etc., are impracticable, the work shall require specific approval of the engineer.

#### **7.6 Necessary Alterations Not Built by General Contractor**

Necessary chases, slots, and holes not built or left by the general contractor shall be cut by the separate contractor requiring such alterations after approval of the general contractor. The general contractor shall do all patching and finishing of his work where cut by other contractors at the expense of such other contractors.

#### **7.7 Contractors Sharing of the Work Site**

Cooperation is required in the use of site facilities and in the detailed execution of the work. Each contractor shall coordinate his operations with those of the other contractors for the best interest of the work in order to prevent delay in the execution thereof.

#### **7.8 Monitoring Contractors Work**

Each contractor shall keep himself informed of the progress of the work of other contractors. Should lack of progress or defective workmanship on the part of other contractors interfere with his operations, the contractor shall notify the engineer immediately. Lack of such notice to the engineer will be construed as acceptance by the contractor for proper coordination of his own work.

#### **7.9 Contractor's Progress of Work Notice(s)**

Each contractor shall give notice(s) of the progress of his work so as to allow other contractors adequate opportunity to properly direct and coordinate their work. The general contractor shall give notice(s) of the progress of his work so that work of other contractors, when required to be concealed, may be placed before the general construction work. All such notices shall be submitted (a) to the engineer with copies to other prime contractors on the project, and (b) sufficiently ahead of job progress to permit adequate time for the other prime contractors to coordinate their work.

#### **7.10 Notice Negligence and Other Liability**

The cost of extra work resulting from lack of notices, untimely notices, and failure to respond to notices, defective work, or lack of coordination shall be borne by the contractor responsible for such lack of notices, etc.

### **ARTICLE 8**

#### **OWNER'S RESPONSIBILITIES**

##### **8.1 Communication**

The owner will issue all communications to the contractor through the engineer.



## **8.2 Engineer's Termination**

In case of termination of the employment of the engineer, the owner will appoint an engineer against whom the contractor makes no reasonable objection and whose status under the contract documents shall be that of the former engineer. Any dispute in connection with such appointment shall be subject to arbitration, if mutually agreeable.

## **8.3 Prompt Payments to Contractor**

The owner will promptly furnish the data required of him under the contract documents and shall promptly make payments to the contractor after they are due as provided herein in **Article 14**.

## **8.4 Owner's Duties**

Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth herein in **Article 4**. **Article 4**, paragraph 4.2 refers to the owner identifying and making available to contractor copies of surveys and investigation reports of subsurface and latent physical conditions at the site or otherwise affecting performance of the work, which has been relied upon by the engineer in preparing the drawings and specifications.

## **8.5 Owner's Liability Responsibilities**

The owner's responsibilities in respect of liability and property insurance are set forth herein in **Article 5**, paragraph 5.4.

## **8.6 Owner's Right to Request Changes**

In addition to owner's rights to request changes in the work in accordance with herein **Article 10**, the owner (especially in certain instances as provided in **Article 10**, paragraph 10.4) will be obligated to execute change orders.

## **8.7 Owner's Right to Stop or Suspend Work**

In connection with the owner's right to stop or suspend work, see herein **Article 15**, paragraph 15.1. **Article 15**, paragraph 15.3 deals with the owner's right to terminate services of the contractor under certain circumstances.

## **8.8 Owner's Use of Completed or Partially Completed Work**

The owner shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding the fact that the time for completing the entire work or any portion thereof may not have expired, but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the contract documents. If such prior use increases the cost of or delays the work, the contractor shall be entitled to such extra compensation or extension of time or both, except by prior agreement as the engineer may determine.

## **8.9 Other Owner's Responsibility**



Owner's responsibility in respect of certain inspections, tests, and approvals is set forth herein in **Article 9**.

## **ARTICLE 9**

### **ENGINEER'S STATUS DURING CONSTRUCTION**

#### **9.1 Owner's Representative**

The engineer shall be the owner's representative during the construction period. The duties and responsibilities and the limitations of authority of the engineer as the owner's representative during construction are set forth herein in **Articles 1 through 17** of these "General Conditions" and shall not be extended without written consent of the owner and the engineer.

**9.1.1** The engineer's decision in matters relating to aesthetics shall be final if within the terms of the contract documents.

**9.1.2** Except as may be otherwise provided in this contract, all claims, counter-claims, disputes, and other matters in question between the owner and the contractor arising out of or relating to this agreement or the breach thereof will be decided by arbitration if the parties hereto mutually agree, or in a court of competent jurisdiction within the state in which the owner is located.

#### **9.2 Visits to Site**

The engineer will make periodic visits to the site to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the contract documents. The engineer will not be required to make continuous on-site observations to check the quality or quantity of the work. The engineer's efforts will be directed toward ascertaining on behalf of the owner that the completed project will conform to the requirements of the contract documents. On the basis of his on-site observations as an experienced and qualified design professional, he will keep the owner informed of the progress of the work and will endeavor to guard the owner against defects and deficiencies in the work of contractors.

#### **9.3 Clarifications and Interpretations**

The engineer will issue with reasonable promptness such written clarifications or interpretations of the contract documents (in the form of drawings or otherwise) as he may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the contract documents. If the contractor believes that a written clarification and interpretation entitles him to an increase in the contract price or extension of contract time, he may make a claim thereof as provided herein in **Articles 11 and 12**.

#### **9.4 Measurement of Quantities**

All work completed under the contract will be measured by the engineer according to the United States Standard Measures. All linear surface measurements will be made horizontally or vertically as required by the item measured.

#### **9.5 Rejecting Defective Work**

The engineer will have authority to disapprove or reject work which is "defective" (which term is hereinafter used to describe work that is unsatisfactory, faulty, or defective, does not conform to the requirements of the contract documents, does not meet the requirements of any inspection, test, or approval referred to in the special conditions, or has been damaged prior to final acceptance). The engineer will also have authority to require special inspection or testing of the work as provided in the special conditions, whether or not the work is fabricated, installed, or completed.

#### **9.6 Shop Drawings, Change Orders, and Payments**

In connection with the engineer's responsibility as to shop drawings and samples, see herein **Article 6**, paragraphs 6.25 through 6.27, inclusively.

#### **9.7 Engineer's Responsibility for Change Orders**

In connection with the engineer's responsibility for change orders, see herein **Articles 10, 11, and 12**.

#### **9.8 Engineer's Responsibility Regarding Application for Payment**

In connection with the engineer's responsibilities in respect of "Application for Payment," etc., see herein **Article 14**.

#### **9.9 Resident Project Representative**

The owner or the engineer will provide on-site representation sufficient to guarantee that construction is in general compliance with the construction drawings and the contract specifications.

#### **9.10 Decisions on Disagreements**

The engineer will be the initial interpreter of the terms and conditions of the contract documents and the judge of the performance thereunder. In his capacity as interpreter and judge he will exercise his best efforts to insure faithful performance by both the owner and the contractor. He will not show partiality to either and shall not be liable for the result of any interpretation or decision rendered in good faith. Claims, disputes, and other matters relating to the execution and progress of the work or the interpretation of or performance under the contract documents shall be referred initially to the engineer for decision, which he shall render in writing within a reasonable time.

#### **9.11 Right to Request Arbitration**

Either the owner or the contractor, if the other agrees, may request arbitration with respect to any such claim, dispute, or other matter that has been referred to the engineer, except any that have been waived by the making or acceptance of final payment as provided herein in **Article 14**, paragraph 14.11, and such arbitration is to be in accordance with herein **Article 16**. However, no request for arbitration of any such claim, dispute, or other matter shall be made until the earlier of (a) the date on which the engineer has rendered his decision or (b) the tenth day after the parties have presented their evidence to the engineer if the engineer has not rendered his written decision before that date. No request for arbitration shall be made later than thirty (30) days after the date on which the engineer rendered his written decision in respect of the claim, dispute, or other matter to which arbitration is sought, and the failure to request arbitration within said thirty (30) days' period shall result in the engineer's decision being final and binding upon the owner and the contractor. If the engineer renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but shall not supersede the arbitration proceedings except where the decision is acceptable to the parties concerned.

#### **9.12 Limitations of Engineer's Responsibilities to Contractor and Others**

Neither the engineer's authority to act under this herein **Article 9** nor any decision made by him in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the engineer to the contractor, any subcontractor, any of their agents or employees or any other person performing any of the work.

#### **9.13 Engineer's Limitations of Responsibility**

The engineer will not be responsible for the construction means, methods, techniques, sequences or procedures, or the safety precautions and programs incident thereto, and he will not be responsible for the contractor's failure to perform the work in accordance with the contract documents.

#### **9.14 Engineer's Limitations of Responsibility for Omissions**

The engineer will not be responsible for the acts or omissions of the contractor, or any subcontractors, or any of his or their agents or employees, or any other persons performing any of the work.

### **ARTICLE 10**

#### **CHANGES IN WORK**

##### **10.1 Owner's Right to Initiate Change Orders**

Without invalidating the agreement, the owner may, at any time or from time-to-time, order additions, deletions, or revisions in the work; these will be authorized by change orders. Upon receipt of a change order, the contractor will proceed with the work involved. All such work shall be executed under the applicable conditions of the contract documents. If any change order causes an increase or decrease in the contract price or

an extension or shortening of the contract time, an equitable adjustment will be made as provided herein in **Article 11** or **Article 12**. A change order signed by the contractor indicates his agreement therewith.

### **10.2 Authorization of Minor Changes or Alterations**

The engineer may authorize minor changes or alterations in the work not involving extra cost and not inconsistent with the overall intent of the contract documents. These changes and/or alterations may be accomplished by a field order. If the contractor believes that any minor change or alteration authorized by the engineer entitles him to an increase in the contract price or extension of contract time, the contractor may make a claim thereof as provided herein in **Articles 11** and **12**.

### **10.3 Unauthorized Additional Work**

Additional work performed by the contractor without authorization of a change order will not entitle him to an increase in the contract price or an extension of the contract time except in the case of an emergency as provided herein in **Article 6**, paragraph 6.21 and except as provided herein in **Article 10**, paragraph 10.2.

### **10.4 Execution of Change Order(s)**

The owner will execute appropriate change orders prepared by the engineer covering changes in the work to be performed as provided herein in **Article 4**, paragraph 4.4, and work performed in an emergency as provided herein in **Article 6**, paragraph 6.21 and any other claim of the contractor for a change in the contract time or the contract price, which is approved by the engineer.

### **10.5 Notification of Surety of Changes**

It is the contractor's responsibility to notify his surety of any changes affecting the general scope of the work or change in the contract price and the amount of the applicable bonds shall be adjusted accordingly. The contractor will furnish proof of such adjustment to the owner.

## **ARTICLE 11**

### **CHANGE OF CONTRACT PRICE**

#### **11.1 Total Compensation Payable to Contractor**

The contract price constitutes the total compensation payable to the contractor for performing the work. All duties, responsibilities, and obligations assigned to or undertaken by the contractor shall be at his expense without changing the contract price.

#### **11.2 Owner's Written and/or Verbal Change Orders**

**11.2.1** The owner may, at any time and without notice to the sureties, by written order designated or indicated to be a change order, make any change in the work

within the general scope of the contract, including but not limited to changes: (a) in the specifications (including drawings and designs); (b) in the method or manner of performance of the work; (c) in the owner-furnished facilities, equipment, materials, services, or site; or (d) directing acceleration in the performance of the work, and/or (e) directing the contractor to stop work for a stated time.

**11.2.2** Any other written order or an oral order (which terms as used in this paragraph shall include direction, instruction, interpretation, or determination) from the owner, which causes any such change, shall be treated as a change order under this clause, provided that the contractor gives the owner written notice stating the date, circumstances, and source of the order and that the contractor regards the order as a change order.

**11.2.3** Except as herein provided, no order, statement, or conduct of the owner shall be treated as a change under this clause or entitle the contractor to an equitable adjustment hereunder.

**11.2.4** If any change under this clause causes an increase or decrease in the contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any order, an equitable adjustment shall be made and the contract modified in writing accordingly: Provided, however, that except for claims based on defective specifications, no claim for any change under above listed paragraph 11.2.2 shall be allowed for any costs incurred more than twenty (20) days before the contractor gives written notice as therein required. And provided further that in the case of defective specifications for which the owner is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the contractor in attempting to comply with such defective specifications.

**11.2.5** If the contractor intends to assert a claim for an equitable adjustment under this clause, he must, within 30 days after receipt of a written change order under above listed paragraph 11.2.1 or the furnishing of a written notice under above listed paragraph 11.2.2, submit to the owner a written statement setting forth the general nature and monetary extent of such claim, unless this period is extended by the owner. The statement of claim hereunder may be included in the notice under above listed paragraph 11.2.2. If not received by the owner within 30 days, the owner may choose to reject the contractor's information relating to such claim without review.

**11.2.6** No claim by the contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this contract.

### **11.3 Determination of Change Order Compensation**

The compensation of any portion of the work covered by a change order or of any claim for an increase or decrease in the contract price shall be determined in one of the following ways:

**11.3.1** where the change order involved is covered by unit prices contained in the contract documents by application of unit prices to the quantities of the items involved. Should the items (by quantity) be increased or decreased by more than 15 percent (15%) from that stipulated in the contract documents and the total dollar amount is significant (greater than ten thousand dollars [\$10,000]), either the owner or the contractor may request to negotiate a new unit price for the quantities in excess of the 15 percent (15%) window to protect their financial interest in the project.

**11.3.2** by negotiated lump sum.

**11.3.3** the actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work plus a fixed amount to be agreed upon to cover the cost of general overhead and profit to be negotiated.

#### **11.4 Defining "Cost of the Work"**

The term "Cost of the Work" (also "Cost of Work") means the sum of all costs necessarily incurred and paid by the contractor in the proper performance of the work. Except as otherwise may be agreed to in writing by owner, such costs shall be in amounts no higher than those prevailing in the locality of the project shall include only the following items and shall not include any of the costs itemized herein in **Article 11**, paragraph 11.5:

**11.4.1** payroll costs for employees in the direct employ of contractor in the performance of the work under schedules of job classifications agreed upon by owner and contractor. Payroll costs for employees not employed full time on the work shall be apportioned on the basis of their time spent on the work. Payroll costs shall include, but not be limited, to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise and payroll taxes, workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation, and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing work after regular working hours, on Sunday, or legal holidays shall be included in the above to the extent authorized by owner.

**11.4.2** cost of all materials and equipment furnished and incorporated in the work, including costs of transportation and storage thereof, and manufacturers' field services required in connection therewith. All cash discounts shall accrue to contractor unless owner deposits funds with contractor with which to make payments, in which case the cash discounts shall accrue to owner. All trade discounts, rebates and refunds, and all returns from sale of surplus materials and

equipment shall accrue to owner, and contractor shall make provisions so that they may be obtained.

**11.4.3** payments made by contractor to the subcontractors for work performed by subcontractors. If required by owner, contractor shall obtain competitive bids from subcontractors acceptable to him and shall deliver such bids to owner who will then determine with the advice of engineer which bids will be accepted. If a subcontract provides that the subcontractor is to be paid on the basis of "Cost of Work" plus a fee, the cost of the work shall be determined in accordance with herein **Article 11**, paragraphs 11.4 and 11.5. All subcontracts shall be subject to the other provisions of the contract documents insofar as applicable.

**11.4.4** costs of special consultants (including, but not limited to, engineers, architects, testing laboratories, surveyors, lawyers, and accountants) employed for services specifically related to the work.

**11.4.5** supplemental costs including the following:

**11.4.5.1** the proportion of necessary transportation, traveling, and subsistence expenses of contractor's employees incurred in discharge of duties connected with the work.

**11.4.5.2** cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the site and hand tools not owned by the workmen that are consumed in the performance of the work, and cost less market value of such items used but not consumed, which remain the property of contractor.

**11.4.5.3** rentals of all construction equipment and machinery and the parts thereof whether rented from contractor or others in accordance with rental agreements approved by owner with the advise of engineer, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof - all in accordance with terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the work.

**11.4.5.4** sales, use, or similar taxes related to the work and for which contractor is liable, imposed by any governmental authority.

**11.4.5.5** deposits lost for causes other than contractor's negligence, royalty payments, and fees and licenses. Costs for permits and licenses must be shown as a separate item.

**11.4.5.6** losses, damages, and expenses, not compensated by insurance or otherwise, sustained by contractor in connection with the execution of, and to,

the work, provided they have resulted from causes other than the negligence of contractor, any subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of owner. No such losses, damages, and expenses shall be included in the cost of the work for the purpose of determining contractor's fee. If, however, any such loss or damage requires reconstruction and contractor is placed in charge thereof, he shall be paid for his services a fee proportionate to that stated herein in **Article 11**, paragraph 11.6.2.

**11.4.5.7** the cost of utilities, fuel, and sanitary facilities at the site.

**11.4.5.8** minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage, and similar petty cash items in connection with the work.

**11.4.5.9** cost of premiums for additional bonds and insurance required because of changes in the work.

## **11.5 Limitations Regarding "Cost of Work"**

The term "Cost of Work" shall not include any of the following:

**11.5.1** payroll costs and other compensation of contractor's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by contractor, whether at the site, or in his principal, or a branch office for general administrator of the work and not specifically included in the schedule referred to herein in **Article 11**, subparagraph 11.4.1 - all of which are to be considered administrative costs covered by the contractor's fee.

**11.5.2** expenses of contractor's principal and branch offices other than his office at the site.

**11.5.3** any part of contractor's capital expenses, including interest on contractor's capital employed for the work and charges against contractor for delinquent payments.

**11.5.4** cost of premiums for all bonds and for all insurance policies whether or not contractor is required by the contract documents to purchase and maintain the same (except as otherwise provided herein in **Article 11**, subparagraph 11.4.5.9.)

**11.5.5** costs due to the negligence of contractor, any subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be



liable, including but not limited to the correction of defective work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

**11.5.6** other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included herein in **Article 11**, paragraph 11.4.

#### **11.6 Determining Contractor's Fee**

The contractor's fee, which shall be allowed to contractor for his overhead and profit, shall be determined as follows:

**11.6.1** a mutually acceptable firm, fixed price; or if none can be agreed upon,

**11.6.2** a mutually acceptable fixed fee based on the estimate of the various portions of the "Cost of Work."

#### **11.7 Credits from Contractor to Owner**

The amount of credit to be allowed by contractor to owner for any such change that results in a net decrease in cost will be the amount of the actual net decrease. When both additions and credits are involved in any one charge, the net shall be computed to include overhead and profit, identified separately, for both additions and credits.

#### **11.8 Itemizing Cost**

Whenever the cost of any work is to be determined pursuant to herein **Article 11**, paragraphs 11.4 and 11.5, contractor will submit in form prescribed by engineer an itemized cost break-down together with supporting data.

#### **11.9 Allowances**

It is understood that the contractor has included in the contract price all allowances so named in the contract documents and shall cause the work so covered to be done by such material-men, suppliers, or subcontractors and for such sums within the limit of the allowances as the engineer may approve. Upon final payment, the contract price shall be adjusted as required and an appropriate change order issued. The contractor agrees that the original contract price includes such sums as he deems proper for costs and profit on account of cash allowances. No demand for additional cost or profit in connection therewith will be allowed.

**11.9.1** These allowances shall cover the cost of the contractor less any applicable trade discount of the materials and equipment required by the allowance delivered at the site and all applicable taxes.

**11.9.2** The contractor's costs for unloading and handling on the site: labor, installation costs, overhead, profit, and other expenses contemplated for the original allowance shall be included in the contract price and not in the allowance.

**11.9.3** Whenever the cost as described in above listed **Article 11**, paragraph 11.9.1 is more or less than the allowance, the contract price shall be adjusted accordingly by change order. The amount of the change order will recognize changes, if any, in handling costs on the site: labor, installation costs, overhead, profit, and other expenses except that whenever unit price allowances are stipulated for brick, the change order will not include any cost as described in above listed **Article 11**, paragraph 11.5.

## **ARTICLE 12**

### **CHANGE OF CONTRACT TIME**

#### **12.1 Contract Time Change Order**

The contract time may only be changed by a change order. Any claim for an extension in the contract time shall be based on written notice delivered to owner and engineer within ten (10) days of the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within forty-five (45) days of such occurrence unless engineer allows an additional period of time to ascertain more accurate data. All claims for adjustment in the contract time shall be determined by engineer if owner and contractor cannot otherwise agree. Any change in the contract time resulting from any such claim shall be incorporated in a change order.

#### **12.2 Extended Contract Time Requirements**

The contract time will be extended in an amount equal to time lost due to delays beyond the control of contractor if he makes a claim therefore as provided herein in **Article 12**, paragraph 12.1. Such delays shall include, but not be restricted to acts or neglect by any separate contractor employed by owner, fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God.

#### **12.3 Binding Time Limits**

All time limits stated in the contract documents are of the essence of the agreement. The provisions of this herein **Article 12** shall not exclude recovery for damages (including compensation for additional professional services) for delay by either party.

#### **12.4 Claims Due to Drawing(s) Delays**

No claim for delay shall be allowed because of failure to furnish drawings until two weeks after demand for such drawings and not then unless such claim be reasonable.

#### **12.5 Other Damage Recovery Rights**

This **Article 12** does not exclude the recovery of damages for delay by either party under other provisions in the contract documents.

## ARTICLE 13

### GUARANTY

#### Contractor's Guaranty Requirements

The contractor shall guarantee all materials and equipment furnished and work performed for a period of one (1) year from the date of substantial completion. The contractor warrants and guarantees for a period of one (1) year from the date of substantial completion of the system that the completed system is free from all defects due to faulty materials or workmanship and the contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The owner will give notice of observed defects with reasonable promptness. In the event that the contractor should fail to make such repairs, adjustments, or the work that may be made necessary by such defects, the owner may do so and charge the contractor the cost thereby incurred. The performance bond shall remain in full force and effect through the guarantee period.

## ARTICLE 14

### PAYMENTS AND COMPLETION

#### 14.1 Payments to Contractor

At least ten (10) days before each progress payment falls due (but not more often than once a month), the contractor will submit to the engineer a partial payment estimate filled out and signed by the contractor covering the work performed during the period covered by the partial payment estimate and supported by such data as the engineer may reasonably require. If a payment is requested on the basis of materials and equipment not incorporated in the work but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the owner. The engineer will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the owner, or return the partial payment estimate to the contractor indicating in writing his reasons for refusing to approve payment. In the latter case, the contractor may make the necessary corrections and resubmit the partial payment estimate. The owner will, within ten (10) days of presentation to him of an approved partial payment estimate, pay the contractor a progress payment on the basis of the approved partial payment estimate. The owner shall retain a portion of the amount otherwise due the contractor in accordance with Section 31-5-33 of the Mississippi Code.

#### 14.2 Contractor's Warranty of Title

The contractor warrants and guarantees that title to all work, materials, and equipment covered by an "Application for Payment," whether incorporated in the project or not, will have passed to the owner prior to the making of the "Application for Payment" free

and clear of all liens, claims, security, interests and encumbrances (hereafter in these general conditions referred to as "Liens") and that no work, materials, or equipment covered by an "Application for Payment" will have been acquired by the contractor or by any other person performing the work at the site or furnishing materials and equipment for the project, subject to an agreement under which an interest therein or encumbrance thereon is retained by the seller or otherwise imposed by the contractor or such other person.

#### **14.3 Approval of Payments**

The engineer's approval of any payment requested in an "Application for Payment" shall constitute a representation by him to the owner based on the engineer's on-site observations of the work in progress as an experienced and qualified design professional and on his review of the "Application for Payment" and the supporting data that the work has progressed to the point indicated; that, to the best of his knowledge, information, and belief, the quality of the work is in accordance with the contract documents (subject to an evaluation of the work is a functioning project upon substantial completion, to the results of any subsequent tests called for in the contract documents and any qualifications stated in his approval); and that the contractor is entitled to payment of the amount approved. However, by approving any such payment the engineer shall not thereby be deemed to have represented that he made exhaustive or continuous on-site observations to check the quality or the quantity of the work; or that he has reviewed the means, methods, techniques, sequences, and procedures of construction; or that he has made any examination to ascertain how or for what purpose the contractor has used the moneys paid or to be paid to him on account of the contract price; or that title to any work, materials, or equipment has passed to the owner free and clear of any liens.

#### **14.4 Contractor's Certification Statement**

The contractor shall make the following certification on each request for payment:

"I hereby certify that the labor and materials listed on this request for payment have been used in the construction of this work or that all materials included in this request for payment and not yet incorporated into the construction are now on the site or stored at an approved location, and payment received from the last request for payment has been used to make payments to all first-tier subcontractors and suppliers except as listed below."

#### **14.5 Engineer's Final Payment Approval**

The engineer's approval of final payment shall constitute an additional representation by him to the owner that the conditions precedent to the contractor's being entitled to final payment as set forth herein in **Article 14**, paragraph 14.11 have been fulfilled.

#### **14.6 Engineer's Right to Refuse Payment Approval**

The engineer may refuse to approve the whole or any part of any payment if, in his opinion, he is unable to make such representations to the owner as above listed in

**Article 14, paragraph 14.5.** He may also refuse to approve any such payment, or because of subsequently discovered evidence or the results of subsequent inspection or tests, nullify any such payment previously approved, to such extent as may be necessary in his opinion to protect the owner from loss because:

**14.6.1** the work is defective, or completed work has been damaged requiring connection or replacement;

**14.6.2** the work for which payment is requested cannot be verified;

**14.6.3** claims or liens have been filed, or there is reasonable evidence indicating the probable filing thereof;

**14.6.4** the contract price has been reduced because of modifications;

**14.6.5** the owner has been required to correct defective work or complete the work in accordance herein with **Article 13**, paragraph 13.1;

**14.6.6** of unsatisfactory prosecution of the work, including failure to clean up as required by herein **Article 6**, paragraphs 6.28, 6.29 and 6.30;

**14.6.7** of persistent failure to cooperate with other contractors on the project and persistent failure to carry out the work in accordance with the contract documents;

**14.6.8** of liquidated damages payable by the contractor; or

**14.6.9** of any other violation of or failure to comply with the provisions of the contract documents.

#### **14.7 Owner's Use of Completed or Partially Completed Work**

Prior to substantial completion, the owner, with the approval of the engineer and with the concurrence of the contractor, may use any completed or substantially completed portions of the work. Such use shall not constitute an acceptance of such portions of the work.

#### **14.8 Owner's Right to Entry**

The owner shall have the right to enter the premises for the purpose of doing work not covered by the contract documents. This provision shall not be construed as relieving the contractor of the sole responsibility for the care and protection of the work or the restoration of any damaged work except such as may be caused by agents or employees of the owner.

#### **14.9 Engineer's Certificate**

Upon completion and acceptance of the work the engineer shall issue a certificate attached to the final payment request that the work has been accepted by him under the conditions of the contract documents. The entire balance found to be due the contractor including the retained percentages, but except such sums as may be lawfully retained by the owner, shall be paid to the contractor within sixty (60) days of completion and acceptance of the work.

#### **14.10 Contractor's Indemnification Requirements to Owner**

The contractor will indemnify and save the owner or the owner's agents harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, materialmen, and furnishes of machinery and parts thereof, equipment, tools, and all supplies incurred in the furtherance of the performance of the work. The contractor shall, at the owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the contractor fails to do so, the owner may, after having notified the contractor, either pay unpaid bills or withhold from the contractor's pay from the contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the contractor shall be resumed in accordance with the terms of the contract documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the owner to either the contractor, his surety, or any third party. In paying any unpaid bills of the contractor, any payment so made by the owner shall be considered as a payment made under the contract documents by the owner to the contractor and the owner shall not be liable to the contractor for any such payments made in good faith.

#### **14.11 Acceptance of Final Payment as Release**

The acceptance by the contractor of final payments shall be and operate as a release to the owner of all claims and all liability to the contractor other than claims in stated amounts as may be specifically excepted by the contractor for all things done or furnished in connection with his work and for every fact and neglect of the owner and others relating to or arising out of his work. Any payment, however, final or otherwise, shall not release the contractor or his sureties from any obligations under the contract documents or the performance bond and payment bonds.

### **ARTICLE 15**

#### **SUSPENSION OF WORK AND TERMINATION**

##### **15.1 Owner May Suspend Work**

The owner may, at any time and without cause, suspend the work or any portion thereof for a period of not more than ninety (90) days by notice in writing to the contractor and the engineer,

which shall fix the date on which work shall be resumed. The contractor will resume the work on the date so fixed. The contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension if he makes claim therefore as provided herein in **Articles 11 and 12.**

### **15.2 Work During Inclement Weather**

No work shall be done under these specifications except by permission of the owner when the weather is unfit for good and careful work to be performed. Should the severity of the weather continue, the contractor, upon the direction of the owner, shall suspend all work until instructed to resume operations by the owner and the contract time shall be extended to cover the duration of the order. Work damaged during the periods of suspension due to inclement weather shall be repaired and/or replaced by the contractor. Any compensation for repairs or replacements shall be subject to approval of the owner.

### **15.3 Owner May Terminate**

If the contractor is adjudged bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the contractor or for any of his property, or if he files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or similar laws, or if he repeatedly fails to supply sufficient skilled workman or suitable materials or equipment, or if he repeatedly fails to make prompt payments to subcontractors or for labor, materials, and/or equipment, or he disregards laws, ordinances, rules regulations or orders of any public body having jurisdiction, or if he disregards the authority of the engineer, or if he otherwise violates any provision of the contract documents, then the owner may, without prejudice to any other right or remedy and after giving the contractor and his surety seven (7) days written notice, terminate the services of the contractor and take possession of the project and of all materials, equipment, tools, construction equipment, and machinery thereon owned by the contractor and finish the work by whatever method he may deem expedient. In such case the contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price exceeds the direct and indirect costs of completing the project, including compensation for additional professional services, such excess shall be paid to the contractor. If such costs exceed such unpaid balance, the contractor or the surety will pay the difference to the owner. Such costs incurred by the owner will be determined by the engineer and incorporated in a change order.

### **15.4 Rights of Owner Against Terminated Contractor**

Where the contractor's services have been so terminated by the owner, said terminations shall not affect any rights of the owner against the contractor then existing or which may thereafter accrue. Any retention or payment of moneys by the owner due the contractor will not release the contractor from liability.

### **15.5 Owner's Right to Abandon Project**

Upon seven (7) days written notice to the contractor and the engineer, the owner may, without cause and without prejudice to any other right or remedy, elect to abandon the project and

terminate the agreement. In such case, the contractor shall be paid for all work executed and any expenses sustained plus a reasonable profit.

#### **15.6 Removal of Equipment**

In the case of termination of this contract before completion for any cause whatever, the contractor, if notified to do so by the owner, shall promptly remove any part or all of his equipment and supplies from the property of the owner. Should the contractor not remove such equipment and supplies, the owner shall have the right to remove them at the expense of the contractor. Equipment and supplies shall not be construed to include such items for which the contractor has been paid in whole or in part.

#### **15.7 Contractor May Stop Work or Terminate**

If, through no act or fault of the contractor, the work is suspended for a period of more than ninety (90) days by the owner, or under an order of court or other public authority, or the engineer fails to act on any "Application for Payment" within sixty (60) days after it is submitted, or the owner fails to pay the contractor any sum approved by the engineer or awarded by arbitrators within sixty (60) days of its approval and presentation, then the contractor may, upon seven (7) days written notice to the owner and the engineer, terminate the agreement and recover from the owner payment for all work executed and any expense sustained plus a reasonable profit. In addition and in lieu of terminating the agreement, if the engineer has failed to act on an "Application for Payment" or the owner has failed to make any payment as aforesaid, the contractor may upon seven (7) days notice to the owner and the engineer stop the work until he has been paid all amounts then due.

#### **15.8 Owner Furnished Equipment**

In case the owner furnishes equipment to the contractor to install but fails to deliver it to the contractor as required by supplementary or special conditions, and in case such failure causes the contractor additional expense or need for extension of time, the contractor may make such claims upon the owner and obtain adjustments as provided herein.

#### **15.9 Liquidated Damages**

If the contractor shall fail to complete the work within the contract time or extension of time granted by the owner, then the contractor will pay to the owner the amount for liquidated damages as shown on his bid for each calendar day that the contractor shall be in default after the time stipulated in the contract documents.

### **ARTICLE 16**

#### **ARBITRATION**

#### **16.1 Arbitration Standards and Rules**

All claims, disputes and other matters in question arising out of, or related to, this agreement or the breach thereof except for claims which have been waived by the making or acceptance of final payment as provided herein by **Article 14**, paragraph 14.11, shall be decided by arbitration, if all parties mutually agree, in accordance with the "Construction Industry Arbitration Rules of the



American Arbitration Association” then obtaining, or in a court of competent jurisdiction. This agreement so to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof. The arbitration decision must present findings of fact, conclusions of law, basis of award, and rationale.

### **16.2 Notice of Arbitration Requirements**

Notice of the request for arbitration shall be filed in writing with the other party to the agreement and with the American Arbitration Association, if both parties mutually agree to arbitration, and a copy shall be filed with the engineer. The request for arbitration shall be made within the thirty (30) day period specified herein in **Article 9**, paragraph 9.11 where applicable, and in all other cases within a reasonable time after the claim, dispute, or other matter in question has arisen and in no event shall it be made after institution of legal or equitable proceedings based on such claim, dispute, or other matter in question would be barred by the applicable statute of limitations.

### **16.3 Arbitration Affects on Work**

The contractor will carry on the work and maintain the progress schedule during any arbitration proceedings unless otherwise agreed by him and the owner in writing.

## **ARTICLE 17**

### **MISCELLANEOUS**

#### **17.1 Recognized Delivery of Notice(s)**

Whenever any provision of the contract documents requires the giving of written notice it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended or if delivered at or sent by registered or certified mail, postage prepaid to the last business address known to him who gives the notice.

#### **17.2 Owner’s Failure to Pay Contractor**

If the owner fails to make payment sixty (60) days after approval by the engineer, in addition to other remedies available to the contractor, there shall be added to each such progress payment, interest at one percent (1%) per month commencing on the first day after said payment is due and continuing until the payment is received by the contractor.

#### **17.3 Engineer’s Property**

All specifications, drawings, and copies thereof furnished by the engineer shall remain the engineer’s property. They shall not be used on another project, and, with the exception of those sets which have been signed in connection with the execution of the agreement, shall be returned to him on request upon completion of the project.

#### **17.4 Non-Limiting Rights and Remedies by Herein Identified Documents**

The duties and obligations imposed by these general conditions, special conditions, and supplemental general conditions and the rights and remedies available hereunder, and, in particular but without limitation, the warranties, guarantees, and obligations imposed upon contractor and

those in the special conditions and the rights and remedies available to owner and engineer thereunder shall be in addition to, and shall not be construed in any way as a limitation of, any rights and remedies available to them which are otherwise imposed or available by law, by special guarantee, or be other provisions of the contract documents.

#### **17.5 Notice of Injury or Damage Claim**

Should the owner or the contractor suffer injury or damage to his/its person or property because of any error, omission or act of the other or of any of his/its employees or agents or others for whose acts he/it is legally liable, claim shall be made in writing to the other party within a reasonable time of the first observance of such injury or damage.

#### **17.6 Laws that Supersede Contract Documents**

The contract documents shall be governed by the law of the place (location) of the project.

#### **17.7 Practicable Schedule**

The contractor shall within five (5) days or within such time as determined by the owner after date of commencement of work prepare and submit to the owner for approval a practicable schedule showing the order in which the contractor proposes to carry on the work, the date on which he will start the several salient features (including procurement of materials, plans and equipment), and the contemplated dates for completing the same. The schedule shall be in the form of a progress chart of suitable scale to indicate approximately the percentage of work scheduled for completion at any time. The contractor shall enter on the chart the actual progress at such intervals as directed by the owner and shall immediately deliver to the owner three (3) copies thereof. If the contractor fails to submit a progress schedule within the time herein prescribed, the owner may withhold approval of progress payment estimates until such time as the contractor submits the required progress schedule.

#### **17.8 Falling behind the Progress Schedule**

If, in the opinion of the owner, the contractor falls behind the progress schedule, the contractor shall take such steps as may be necessary to improve his progress and the owner may require him to increase the number of shifts or overtime operations, days of work, or the amount of construction plant, or update the progress schedule to reflect increased production for meeting the completion date, or all of them, and to submit for approval such supplementary schedule or schedules in chart form as may be deemed necessary to demonstrate the manner in which the agreed rate of progress will be regained, all without additional cost to the owner.

#### **17.9 Failure of Contractor to Comply with Owner Requirements**

Failure of the contractor to comply with the requirements of the owner under this provision shall be grounds for determination by the owner that the contractor is not prosecuting the work with such diligence as will insure completion within the time specified. Upon such determination, the owner may terminate the contractor's right to proceed with the work or any separable part thereof in accordance with the clause of the contract entitled, "Termination for Default-Damages for Delay – Time Extensions."

#### **17.10 Failure to Complete the Work on Time**

Should the contractor fail to complete the work within the specified time or within any extra time allowed under these specifications, a sum of money determined by the following schedule shall be deducted from any funds due the contractor. The owner shall have the right to recover the said sum or sums from the contractor or from the surety or from both. The amounts of these deductions are to cover the liquidated damages to the owner incurred by additional or other expenses due to the failure of the contractor to complete the work or any part of the work within the time specified, and such deductions are not to be considered penalties.

#### **17.11 Liquidated Damages**

The damages indicated in the contract documents shall be considered as liquidated damages for the loss to the owner on account of the expense due to the employment of engineers and their assistants and to any others expenses incurred after the expiration of the contract time as determined by the engineer.

#### **17.12 Laws that Supersede Contract Documents**

The contract documents shall be governed by the law of the place (location) of the project.

## SUPPLEMENTAL GENERAL CONDITIONS

### ARTICLE 1 - SPECIAL CONDITIONS

#### SCOPE AND INTENT

Special conditions shall prevail over General Conditions in case of conflict. The Contractor shall furnish all labor, materials, equipment (including fuel), tools, appliances, transportation and perform all operations in connection with the construction of, alterations to, or repair of, the building, including utilities, complete, in strict accordance with the specifications and the plans governing the construction of, alterations to, or repair of, the project.

#### EXAMINATION OF PREMISES

Before submitting a proposal for his work, each bidder shall be held responsible to have examined the site and satisfied himself as to the conditions under which work is to be performed.

#### PERMITS, TAXES, AND ORDINANCES

The Contractor shall pay for all required permits, give legal notices, and pay taxes and assessments levied in connection with this contract. Building regulations of the City of Petal Building Code shall be strictly adhered to and the contractor shall be responsible for knowledge thereof.

#### INSURANCES, ETC.

In addition to the requirements of the General Conditions, insurance coverage specified herein constitutes the minimum requirements and said requirements shall in no way lessen or limit the liability of the **CONTRACTOR** under the terms of the Contract. The **CONTRACTOR** shall procure and maintain at his own expense any additional kinds and amounts of insurance that, in his own judgment, may be necessary for his proper protection in the prosecution of the Work.

The **CONTRACTOR** shall carry insurance as prescribed herein and all policies shall be with companies satisfactory to the **OWNER**.

If a part of this Contract is sublet, the **CONTRACTOR** shall require each Subcontractor to carry insurance of the same kinds and in like amounts as carried by the **CONTRACTOR**.

Certificates of insurance shall state that 30 days written notice will be given to the **OWNER** before the policy is canceled or changed. No **CONTRACTOR** or Subcontractor will be allowed to start any construction work on this Contract until certificates of all insurance required herein are filed and approved by the **OWNER**. The certificates shall show the type, amount, class of operations covered, effective dates and the dates of expiration of policies. The **CONTRACTOR** shall secure and maintain in effect for the period of the Contract and pay all premiums for the following kinds and amounts of insurance.

A. Workers' Compensation and Employer's Liability Insurance

This insurance shall protect the **CONTRACTOR** against all claims under applicable

State Worker's Compensation Laws. The **CONTRACTOR** shall also be protected and shall cause each Subcontractor to be protected against claims for injury, disease, or death of employees which, for any reason, may not fall within the provisions of a Worker's Compensation Law. The liability limits shall not be less than the required statutory limits for Worker's Compensation and Employer's Liability in the amount of ONE HUNDRED THOUSAND DOLLARS (\$100,000.00) for each person. This policy shall include an all states endorsement.

- B. **CONTRACTOR'S Comprehensive Public Liability and Property Damage Insurance**, covering all operations in connection with the performance of this Contract in amounts not less than the following:

Bodily injury liability in the amount of FIVE HUNDRED THOUSAND DOLLARS (\$500,000) for each person and ONE MILLION DOLLARS (\$1,000,000) for each accident and property damage liability in the amount of TWO HUNDRED FIFTY THOUSAND DOLLARS (\$250,000) for all damages arising out of the injury or destruction of property in any one accident and subject to that limit per accident a total for aggregate limit of FIVE HUNDRED THOUSAND DOLLARS (\$500,000) for all damages arising out of injury to or destruction of property during the policy period. The Comprehensive Public Liability and Property Damage policies carried by both the **CONTRACTOR** and the Subcontractors shall contain an endorsement to include the coverage of the following hazards:

- a. Explosion, collapse, and underground property damage to include any damage or destruction of property below the surface of the ground, such as wires, conduits, pipes, mains, sewers, etc., caused by the **CONTRACTOR'S** operations.
- b. The collapse of and structural injury to any building, structure or property on or adjacent to the **OWNER'S** premises or right-of-way caused by the **CONTRACTOR'S** operations in the removal of other buildings, structures, or supports, or by excavation below the surface of the ground.
- c. Contractual Liability Coverage for the Hold Harmless segments of the Contract Documents.

- C. **CONTRACTOR'S Contingent or Protective Liability and Property Damage:**

In case part of this Contract is sublet, the **CONTRACTOR** shall secure contingent or protective liability and property damage insurance to protect him from any and all claims arising from the operation of his Subcontractors in the execution of Work included in the Contract. In no case shall the amount of such protection be less than the limits of \$500,000/\$1,000,000 for Public Liability Insurance and \$500,000/\$1,000,000 for Property Damage Insurance. The coverage in each case shall be acceptable to the **OWNER**.

D. Automotive Public Liability and Property Damage

The **CONTRACTOR** shall maintain automobile public liability insurance in the amount of not less than FIVE HUNDRED THOUSAND DOLLARS (\$500,000) for injury to one person and ONE MILLION DOLLARS (\$1,000,000) for one accident; and automobile property damage insurance in the amount of not less than FIVE HUNDRED THOUSAND DOLLARS (\$500,000) for one accident to protect him from any and all claims arising from the use of the following:

- a. **CONTRACTOR'S** own automobiles and trucks.
- b. Hired automobiles and trucks.
- c. Automobiles and trucks owned by Subcontractors.

The aforementioned is to cover use of automobiles and trucks on and off the site of the Project.

E. OWNER'S Protective Liability Policy

The **CONTRACTOR** shall maintain **OWNER'S** Protective Liability Insurance with the **OWNER** as the named insured, and the **ENGINEER**, and their servants, agents and employees as additional insureds in amounts not less than the following:

- a. Bodily Injury in the amount of ONE MILLION DOLLARS (\$1,000,000) for each person and ONE MILLION DOLLARS (\$1,000,000) for each accident and property damage liability in the amount of FIVE HUNDRED THOUSAND DOLLARS (\$500,000) for all damages arising out of an injury or destruction of property in any one accident and subject to that limit per accident a total (or aggregate) limit of ONE MILLION DOLLARS (\$1,000,000) for all damages arising out of injury to or destruction of property during the policy period.

## CLEANING UP

The Contractor shall, at all times, keep the premises free from accumulations of waste materials and at the completion of the work, shall remove all his rubbish, tools, temporary buildings, etc. from and about the site and shall leave his work "broom" clean unless more exactly specified elsewhere. All glass shall be washed and left free from stains of any nature.

## GUARANTEE

The Contractor shall guarantee to City of Petal all work under this contract to be free from defects in workmanship and materials for a period of one (1) year from date of final acceptance.

## **BIDS**

The form of proposal or an exact facsimile thereof must be used by Contractors submitting proposal for any or all of the work included in these specifications and/or the accompanying plans. The receipt of all Addenda must be acknowledged and the receipt signed by the Contractor or his duly authorized representative and attached to the proposal form when the bids are submitted.

## **SPECIAL INSTRUCTIONS**

### **LIMITATIONS**

During construction, care is to be taken to prevent damage to the work in place. As soon as work is completed, all work is to be thoroughly cleaned. Before completion, all damaged work is to be repaired and left in perfect condition. The Contractor will be responsible for all clean-up of the premises. All trash, etc. will be hauled away from the site, and the site left in a clean and neat condition. Alcoholic beverages of any type will not be permitted on job site.

### **PRODUCT/MATERIALS SUBSTITUTION**

Contractor will submit prior to starting work on project any changes to materials specified. Contractor will submit all specification data, company name, and supplier of material that he wishes to substitute. All material will be evaluated. Contractor will be given approval/disapproval with five (5) days by Owner. No substitutes will be taken into consideration after work has begun, no substitutes will be allowed if Contractor does not submit specification data within time allowed.

### **INSPECTION**

All work covered by these specifications shall be subject to inspection by Owner or his authorized representative. Contractor will coordinate with Owner for inspections as required during construction, and furnish to the Owner in writing a project schedule prior to mobilization of work at the job site.

### **WARRANTY**

The Contractor, upon completion of the project, shall furnish one (1) year written guarantee on all materials and workmanship to begin on the date of acceptance by the Owner or the Owner's appointed representative.

### **SPECIFICATIONS AND DRAWINGS ARE RECIPROCAL**

The specifications and drawings are intended mutually to explain each other and anything which is referred to in the specifications and not shown on the drawings shall be considered as being shown and mentioned and referred to in both of these documents. Such work shall be done and

performed accordingly. Any drawing attached to this specification form is an integral part thereof and where such drawings, if any, differ from these specifications, the specifications shall govern.

## **AS-BUILT DRAWINGS**

Occasionally, during the course of construction, modifications and changes may occur due to site conditions, unforeseen circumstances and problems encountered. This may result in a modification of construction as originally depicted on drawings. Contractor will furnish the City of Petal a marked-up set of prints in red line of all changes and/or modifications that pertain to this contract. Drawings will be labeled. "AS-BUILT DRAWINGS".

## **GUARANTEES, WARRANTIES AND BONDS**

1. All work will be guaranteed by the Contractor for a period of one (1) year from the date of substantial completion.
2. Wording for the notarized guarantee shall be as follows:  
"We hereby guarantee all work performed by us on the above captioned project to be free from defective materials and workmanship for a period of one (1) year, or such longer period of time as may be called for in the Contract Documents for such portions of the work."
3. Guarantee Compliance:  
Except as otherwise specified, all work shall be guaranteed by the Contractor and through him each sub-contractor against defects resulting from the use of inferior materials, equipment or workmanship for one (1) year from the date of substantial completion of the Contract. In case of work performed by his sub-contractors, the Contractor shall secure warranties from said sub-contractors and deliver copies of the same to the Owner upon completion of the work. If, within any guarantee period, repairs or changes are required in connection with guaranteed work which, in the Owner's opinion, are rendered necessary as the result of use of materials, equipment or workmanship which are inferior, defective or not in accordance with terms of the Contract: Contractor shall promptly upon receipt of Owner's written notice, and without expense of the Owner;
  - a. Place in satisfactory condition in every particular all such guaranteed work, correct all defects therein.
  - b. Make good all damage to the building, site, equipment or building contents which in the Owner's opinion is the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with terms of the Contract.
  - c. Make good any work or material or the equipment and contents of building or site disturbed in fulfilling such guarantee.

In any case where fulfilling the requirements of the Contract, or any guarantee embraced in or required thereby, the Contractor disturbs any work guaranteed under another's Contract, he shall restore such disturbed work to condition satisfactory to the Owner and guarantee such restored work to the same extent as it was guaranteed under such other



contract. If the Contractor, after notice, fails to proceed promptly to comply with terms of the guarantee, the Owner may have the defects corrected and the Contractor and his surety shall be liable for all expense incurred. All special guarantees applicable to definite parts of the work that may be stipulated in the specification or other Contract Documents shall be subject to the terms of this Specification Section during the first year of the life of such special guarantees. All guarantees and warranties shall be obtained in the Owner's name and evidence thereof shall be promptly delivered to the Owner's Representative for transfer to the Owner.

## **CLOSE-OUT DOCUMENTS**

In general documents for close out, to be submitted by the Contractor to the Owner, prior to final payment, shall be; but not limited to the following:

1. APPLICATION FOR PAYMENT: AIA Document G-702
2. CERTIFICATE OF SUBSTANTIAL COMPLETION: AIA Document G-704
3. CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS:  
AIA Documents G-706 and G-706A: The Contractor shall furnish these AIA Documents complete with attached notarized full release of liens, damages, and a guarantee that all materials and labor are paid in accordance with Contract Documents with the following wording:  
*"WE HEREBY CERTIFY THAT ALL BILLS FOR LABOR AND MATERIALS INCORPORATED INTO THE ABOVE CAPTIONED PROJECT UNDER OUR CONTRACT HAVE BEEN PAID AND THAT THE OWNER IS RELEASED FROM ANY AND ALL CLAIMS AND/OR DAMAGES UNDER THIS CONTRACT."*
4. CONSENT OF SURETY COMPANY TO FINAL PAYMENT: AIA Document G-707  
To be completed in full by the Bonding Company.
5. CONTRACTOR'S NOTARIZED STATEMENT:  
Notarized statement that project has been constructed in accordance with Contract Documents.
6. CONTRACTOR'S NOTARIZED STATEMENT OF GUARANTEE/S:  
All work will be guaranteed by the Contractor for a period of one (1) year from the date of substantial completion. Wording will be as follows:  
*"WE HEREBY GUARANTEE ALL WORK PERFORMED BY US ON ABOVE CAPTIONED PROJECT TO BE FREE FROM DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR, OR SUCH LONGER PERIOD OF TIME AS MAY BE CALLED FOR IN THE CONTRACT DOCUMENTS FOR SUCH PORTIONS OF THE WORK."*  
In the case of work performed by his sub-contractors, the Contractor shall secure warranties from said sub-contractors and deliver copies of same to the Owner upon completion of work.
7. OPERATING AND MAINTENANCE MANUALS:  
All manufacturer's operating instructions and maintenance manuals will be compiled in a tabbed and labeled 3-ring binder. (Furnish Owner with two (2) sets).
8. FORM W-9, PAYER'S REQUEST FOR TAXPAYER IDENTIFICATION NUMBER AND CERTIFICATION (IRS):  
Form W-9 is to be completed by non-corporation contractors. Non-applicable if Contractor's firm is Incorporated.
9. FINAL CLEANING:  
At close out time clean and re-clean entire work to normal level for "FIRST CLASS" maintenance/cleaning.

## MEASUREMENT AND PAYMENT

Unless otherwise noted in this section, Measurement and Payment for all bid items shall be in accordance with the Mississippi Standard Specifications for Road and Bridge Construction, 2004 edition.

Measurement and payment for the following bid items shall be as described and shall include all material equipment, labor and testing to install and make operational a complete sewer system as detailed on the contract drawings and in these specifications.

### SEWER MAIN (SDR-26), HDPE, DUCTILE IRON, OR OTHER

Payment for all sewer mains will be per linear foot for various diameter pipe measured from centerline of manhole to centerline of manhole in relation to the diameter of the pipe and the depth of cut as shown in the individual bid items. The item shall be paid per linear foot.

### REMOVAL OF EXISTING SEWER LINE

Payment for removal of existing sewer line shall be as indicated on the construction plans. The item shall include all labor, materials and equipment necessary to complete the item. The item shall be paid per linear foot.

### ABANDONMENT OF EXISTING SEWER LINE

Payment for abandonment of existing sewer line shall be as indicated on the construction plans. The item shall include all labor, materials and equipment necessary to complete the item. The item shall be paid per linear foot.

### MANHOLES

Payment for manholes will be per each and depth of manhole in appropriate depth bracket measured from lid of manhole to downstream invert. Depth shall be based on individual bid items.

### DEMOLITION AND REMOVAL OF EXISTING MANHOLE

Payment for demolition and removal of existing manhole shall be as indicated on the construction plans. The item shall include the removal of the manhole frame and lid assembly with storage and delivery to City of Hattiesburg, demolition of the remainder of the manhole as indicated on the construction plans removal of the manhole as indicated. The item shall include all labor, equipment and materials necessary to demolish and remove an existing manhole. Bypass pumping shall be an absorbed portion of this item should it be necessary for the removal. The item shall be paid per each.

### ABANDONMENT OF EXISTING MANHOLE

Payment for abandonment of existing manhole shall be as indicated on the construction plans. The item shall include all labor, materials and equipment necessary to complete the item. The item shall be paid per each.

#### DROP MANHOLE ASSEMBLY

Payment for drop manhole assembly shall include furnishing and installing all hardware required to assemble a drop as detailed in the plans and specifications. Payment shall be per each.

#### SANITARY SEWER SERVICE CLEANOUT

Payment for sewer cleanout will be per each to include all labor, materials and equipment at the bid size. Price shall reflect each necessary cleanout as determined by the ENGINEER to provide sanitary sewer service to project area.

#### SANITARY SEWER SERVICE

Payment for sanitary sewer service will be per linear foot for various diameter pipe. Item shall include pvc pipe, fittings, and other items necessary for a functioning service. Item shall include all labor, equipment and materials necessary to install all equipment. The item shall be per linear foot.

#### SANITARY SEWER SERVICE TEE

Payment for sanitary sewer service tee will be per each at the bid size and type. Price shall include all labor, materials and equipment necessary to install sanitary sewer service tee based on plans and specifications.

#### DUCTILE IRON, PVC and HDPE WATER SYSTEMS

Payment for item shall include furnishing and installing all pipe, trenching, compaction of required bedding and backfill excavation, disposal of excess excavated material sheeting, shoring, bracing, dewatering, testing, fittings, reducers, flushing the system and related items not specifically covered under other pay items. The contract price shall be determined by the measured distance of pipe installed and accepted per linear foot.

#### TRACER WIRE SYSTEM

Installation requirements for tracer wire shall be as indicated on the construction plans. The item shall include all labor, materials and equipment necessary to provide a complete tracer system for the sewer infrastructure with proper grounding and connection points as shown in the plans and specifications. Grounding and hook-up locations shall be absorbed in the price of the tracer wire. The item shall be paid per linear foot.

#### CONNECTION ITEMS

Payment for connection items shall include installation of reducers, fittings, valve boxes, trenching, excavation, compaction of backfill, blocking, disposal of excess excavated material, sheeting, shoring bracing, dewatering, testing, flushing and related items not specifically covered under other pay items as depicted on the construction plans. Pay shall be determined per each.

### GATE VALVES

Payment for installation of gate valves shall include furnishing gate valves, valve boxes, trenching, excavating, compaction of backfill, disposal of excess excavated material, sheeting, shoring, bracing, dewatering, testing, flushing and related items not specifically covered under other pay items as depicted on the construction plans. Pay shall be determined per each.

### FIRE HYDRANT WITH APPURTENANCES

Payment for installation of fire hydrant with appurtenance shall include furnishing fire hydrant, gate valve, valve box, piping, trenching, excavating, compaction of backfill, blocking, disposal of excess excavated material, sheeting, shoring, bracing, dewatering, testing, flushing and related items not specifically covered under other pay items. Pay shall be determined per each to include fire hydrant, tees, gate valve, valve box, pipe and other miscellaneous items as required to provide an operational hydrant. Pay shall be determined per each.

### REMOVAL OF EXISTING FIRE HYDRANT

Payment for removal of fire hydrant shall include capping/plugging existing service line and removal of the hydrant. Item shall be paid per each.

### SERVICE TAP

Payment for service tap shall include all fittings, tubing, tapping saddle, corporation stop, materials, labor and equipment to provide a new water service. Item shall be paid per each.

### SERVICE TUBING

Payment for installation of service tubing shall include furnishing and installing service tubing as directed by the ENGINEER. Item shall include all boring, trenching, excavating, compaction of backfill, disposal of excess excavated material etc. to install service tubing as directed. Payment shall be per linear foot measured from each connection point.

### RESIDENTIAL METER

Payment for residential meter shall include all components, labor and equipment for a fully operational water meter. Meter shall meet the requirements of the plans and specifications and function fully within the existing system. Item shall include meter, box and any necessary fittings and shall be paid per each.

### CRUSHED AGGREGATE

Payment for crushed aggregate shall include furnishing and installing material as specified in the plans and specifications. Crushed aggregate shall be installed as a base material for the pavement repairs. Crushed aggregated may be used for a temporary riding surface and will be the surface of Camp Street throughout the life of the project. Temporary riding surface will be removed prior to pavement repairs and moved to

another location as directed by the engineer at no additional cost to the project. Payment shall be per ton from certified scales.

#### SELECT FILL MATERIAL

Payment for select fill material will be based on loose vehicular measurement. Haul vehicles shall be measured and volumes calculated. It shall be the discretion of ENGINEER as to the overall percentage full of haul material and that determination shall be final. Item shall include material, haul, placement and testing necessary to meet the plans and specifications.

#### CONCRETE PAVEMENT REPAIR

Payment for concrete pavement repair shall include furnishing and installing concrete pavement as specified in the plans and specifications. Item shall include forming, material, haul, placement, finishing and testing necessary to meet the plans and specifications. Payment shall be per square yard.

#### CONCRETE

Payment for concrete shall include furnishing and installing concrete with specified class as specified in the plans and specifications. Item shall include forming, material, haul, placement compaction and testing necessary to meet the plans and specifications. Item shall include reinforcing steel, grates, etc. as necessary and required. Payment shall be per cubic yard.

#### HOT MIX ASPHALT

Payment for hot mix asphalt shall include furnishing and installing asphalt pavement as specified in the plans and specifications. Item shall include material, haul, placement compaction and testing necessary to meet the plans and specifications. Payment shall be per ton.

#### CONCRETE SIDEWALK REPAIR

Payment for concrete sidewalk repair shall include furnishing and installing sidewalk to match removed concrete sidewalk. Item shall include saw cutting, forming, material, haul, placement, compaction and testing necessary to meet the plans and specifications. Item shall not be used for damage to sidewalk as a result of poor construction methods or neglect from the contractor. Payment shall be per square yard.

#### CONCRETE CURB AND GUTTER

Payment for concrete curb and gutter shall include removal, grading, forming, materials, placement, compaction and testing necessary to match existing curb and gutter. Item shall be paid per linear foot.

#### CONCRETE DITCH REPAIR

Payment for concrete ditch repair shall include removal, grading, forming, materials, placement, compaction and testing necessary to match existing paved ditch. Item shall be paid per square yard.

### CLASS "B" CONCRETE, MINOR STRUCTURES

Payment for Class "B" Concrete, Minor Structures shall include grading, forming, materials, placement, compaction and testing necessary to complete the construction as defined in the plans and specification and in accordance with the Mississippi Standard Specifications for Road and Bridge Construction, 2017 edition. Item shall be paid per cubic yard.

### REINFORCING STEEL

Payment for reinforcing steel shall include grading, forming, materials, tying, spacing and testing necessary to complete the construction as defined in the plans and specification and in accordance with the Mississippi Standard Specifications for Road and Bridge Construction, 2017 edition. Item shall be paid per pound.

### INLET GRATINGS

Payment for inlet gratings shall include casting, materials, installation and testing necessary to complete the construction as defined in the plans and specification and in accordance with the Mississippi Standard Specifications for Road and Bridge Construction, 2017 edition. Item shall be paid per pound.

### INLET CASTINGS

Payment for inlet castings shall include casting, materials, installation and testing necessary to complete the construction as defined in the plans and specification and in accordance with the Mississippi Standard Specifications for Road and Bridge Construction, 2017 edition. Item shall be paid per pound.

### DRAINAGE PIPE

Payment for all drainage pipe will be per linear foot for various diameter pipe and material type measured from end of pipe to end of pipe installed in relation to the diameter of the pipe.

### REMOVAL OF EXISTING PIPE CROSS DRAINS

Payment for removal of existing pipe cross drains shall include removal of all pipe materials from project site. Item shall be as authorized by the engineer. Item shall be paid per linear foot.

### REMOVAL, SALVAGE, AND RESET EXISTING FENCE

Payment for removal, salvage, and reset of existing fence shall include removal of all fence materials, storing materials, and installation of materials in a new location as directed by the ENGINEER. Item shall be paid per linear foot.

### 6" YELLOW THERMOPLASTIC DETAIL TRAFFIC STRIPE

Payment for 6" Yellow Thermoplastic Detail Stripe shall include materials, labor, and equipment for the installation of striping at locations directed by the ENGINEER and in accordance with the Mississippi Standard Specifications for Road and Bridge Construction, latest edition. Item shall be paid per linear foot.

#### LEGEND WHITE THERMOPLASTIC TRAFFIC MARKING

Payment for Legend White Thermoplastic Traffic Marking shall include materials, labor, and equipment for the installation of striping at locations directed by the ENGINEER and in accordance with the Mississippi Standard Specifications for Road and Bridge Construction, latest edition. Item shall be paid per linear foot.

#### SOLID SOD

Payment for solid sod shall include furnishing and installing sod, fertilizer, lime and other components required to establish permanent grassing matching existing conditions. Solid Sod shall include final grading prior to installation of sod materials. The unit measurement shall be per square yard.

#### LANDSCAPE RESTORATION

Payment for Landscape Restoration shall include furnishing and installing of top soil, mulch, plants, fertilizer, watering, final grading and other components required to re-establish landscaping to matching existing conditions. The unit measurement shall be per square foot.

#### CLEARING AND GRUBBING

Payment for clearing and grubbing shall include removal of all items within the required limits of construction necessary to complete the project based on the construction plans and specifications. Payment shall include off site removal of all items removed during clearing and grubbing. Item shall include all materials, labor and equipment necessary to meet the plans and specifications. Payment shall be per acre.

#### TEMPORARY EROSION CONTROL

Payment for Temporary Erosion Control shall include furnishing, installing and maintaining hay bales or silt fence as required by current Mississippi Department of Environmental Quality standards. Hay bales and silt fence shall be installed and maintained to prevent erosion under or excess siltation within 24 hours of a rain event. The unit measurement shall be lump sum and includes any required maintenance.

#### MAINTENANCE OF TRAFFIC

Payment for maintenance of traffic will be lump sum. Item shall include all materials, labor and equipment to maintain traffic based on the current MUTCD or as required by the ENGINEER.

#### MOBILIZATION

Payment for mobilization shall enable contractor to assemble materials, equipment, etc. on site, to prepare for construction. The unit measurement shall be lump sum. Mobilization shall be paid 50 percent at 5 percent of construction complete and 100 percent at 25 percent of construction complete.

# **TECHNICAL SPECIFICATIONS**

## **1. Applicable Specifications**

The Technical Specifications entitled Mississippi Standard Specifications for Road and Bridge Construction, 2004 Edition shall be the specifications applicable to this project except as for herein specified. Any testing required by those specifications for material submittal approval shall be the responsibility of the Contractor. The testing laboratory used by the Contractor shall be a laboratory certified by the Mississippi Department of Transportation and shall be approved by the Engineer. Any reference to Unit Item for pay shall be modified and paid based on the Measurement and Payment section of the specifications.

## **2. References Amended to mean Engineer**

Any reference in the above mentioned specifications to Commission, Director, Chief Engineer, Testing Engineer, or Project Engineer shall be amended in these specifications to mean the Engineer, or his duly authorized representative, of the City of HATTIESBURG.



## **SANITARY SEWER SYSTEMS**

### **1.0 GENERAL**

This item shall consist of furnishing all of the necessary materials, supervision, labor, tools, equipment and incidentals, and the installation of various types and sizes of sewer pipe and related items in accordance with the Contract Drawings and Specifications, as stated in the Proposal.

### **2.0 APPLICABLE PUBLICATIONS**

The following publications form a part of these Specifications and where referred to by basic designation only, are applicable to the extent indicated. The latest editions of the publications referenced shall apply to the work.

#### **AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)**

- A 139/139M Electric-Fusion (Arc) Welded Steel Pipe (HPS 4 inch and over).
- A 252 Welded and Seamless Steel Pipe Piles.
- C 31/C 31M Making and Curing Concrete Compressive and Flexural Strength Test Specimens in the Field.
- C 33 Specifications for Concrete Aggregate
- C 39/C 39M Compressive Strength of Cylindrical Concrete Specimens.
- D 1248 Polyethylene Plastics Extrusion Materials for Wire and Cable
- D 1784 Rigid Poly(Vinyl Chloride)(PVC) Compounds and Chlorinated Poly (Vinyl Chloride)(CPVC) Compounds.
- D 2412 Determination of External Loading Characteristics of Plastic Pipe by Parallel Plate Loading.
- D 2922 Density of Soil and Soil Aggregate in place by Nuclear Methods (Shallow Depths).
- D 3034 Specifications for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
- D 3212 Joints for Drain and Sewer Plastic Pipes using Flexible Elastomeric Seals.

F 477 Specifications for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

F 794 Poly (Vinyl Chloride)(PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter.

### **AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)**

A21.10 Ductile Iron Fittings, 3 inch through 48 inch for Water and other Liquids.

A21.11 Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings.

A21.50 Ductile Iron Pipe, Design Requirements

A21.51 Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand-lined Molds, for Water or other Liquids.

### **AMERICAN WATER WORKS ASSOCIATION (AWWA)**

C 104 Cement-Mortar Lining for Ductile Iron Pipe and Fittings for Water and Other Liquids.

C 106 Cast Iron Pipe Centrifugally Cast in Metal Molds, for water and other Liquids.

C 110 Ductile Iron Fittings, 3 inch through 48 inch, for Water and Other Liquids.

C 111 Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings.

C 151 Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds, for Water or other Liquids.

### **AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS (AASHTO)**

T-88 Particle Size Analysis of Soils.

T-89 Determining the Liquid Limit of Soils.

T-90 Determining the Plastic Limit and Plasticity Index of Soils.

T-99 Moisture Density Relations of Soils Using a 5.5 lb. Rammer and 12 inch Drop.

T-191 Density of Soil In-Place by the Sand-Cone Method.

## **MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

Standard Specifications for Road and Bridge Construction Current Edition.

### **3.0 SUBMITTALS**

The following submittals shall be required for the respective materials used in the work. All submittals shall be submitted through the Contractor to the Engineer.

**3.1 Ductile Iron Pipe:** The following submittals shall be required for ductile iron pipe systems utilized on the project. The Contractor shall furnish manufacturer's certificates certifying that the pipe and fittings conform to the requirements as specified hereinafter under Article 4.0, Materials. In addition, the submittals shall include the following:

A. Joints: The following shall be required for ductile iron joints.

1. Drawings or Manufacturer's Catalogue data indicating dimensions and tolerance.

2. Gaskets shall be tested in accordance with the respective standards as indicated in ANSI 21.11 and results shall be included in the submittals. Test shall be for similar materials on the gaskets and be not more than one year old.

3. Mechanical Joints: Should the Contractor elect to use mechanical joints in lieu of push-on joints, manufacturer's data shall be submitted in accordance with the "Special Requirements for the Mechanical Joint" as stated in ANSI 21.11 (AWWA C 111).

B. Ductile Iron Pipe Submittal Shall Include the Results of:

1. Tension Test
2. Impact Test
3. Low Temperature Impact Test

Sampling procedure shall be as indicated in ANSI 21.51.

**3.2 PVC Pipe:** The Contractor shall submit manufacturer's certificate certifying that the pipe and fittings conform to the requirements as specified hereinafter under Article 4.0, Materials. In addition, the Contractor shall submit the following:

A. PVC Piping: PVC Pipe shall be sampled, tested, and inspected in accordance with the provisions of ASTM D3034. Copies of test results shall be attached. Test results shall be similar material and not be more than one-year old from the date of material delivery.

B. Joints: The following submittals shall be required for PVC joints.

1. Certificate with test results for joints for compliance to ASTM D 3212. Gaskets shall conform to ASTM F 477. Test results shall be for similar material and not be more than one-year old.

#### **4.0 MATERIALS**

**4.1 Gravity Sewer Pipe:** Where the type of gravity sewer piping is not indicated on the plans, the Contractor shall furnish polyvinyl chloride (PVC) pipe.

The Contractor shall be restricted to furnishing the exact type of pipe material where indicated on the Contract Drawings.

The Contractor shall be limited to the use of only one type of pipe (so selected by the Contractor and indicated on the Proposal Form) and shall not change the type of gravity sewer pipe except as follows:

1. Where indicated on the plans, or
2. If permitted in writing by the Engineer.

A. Ductile Iron Pipe: Ductile iron shall be designed in accordance with the latest revision of ANSI/AWWA C150/A21.50 for a minimum 50psi.

Ductile Iron Pipe shall be manufactured in accordance with the latest revision of ANSI/AWWA C151/A21.51. Each pipe shall be subjected to a hydrostatic pressure test of at least 500 psi at the point of manufacture.

Pipe shall be standard asphaltic coating on the exterior. Pipe shall also have a Protecto 401 lining on the interior.

The class or nominal thickness, net weight without lining, and casting period shall be clearly marked on each length of pipe. Additionally, the manufacturer's mark, country where cast, year in which the pipe was produced, and the letters "DI" or "Ductile" shall be cast or stamped on the pipe.

All pipe shall be furnished with Push-On Type Joints, such as Tyton or Fastite. Joints shall be in accordance with ANSI/AWWA C111/A21.11, of latest revision, and be furnished complete with all necessary accessories.

Fittings shall be ductile iron. Fittings shall conform to the latest revision of either ANSI/AWWA C600.

B. PVC Pipe : PVC gravity sewer pipe and fittings shall conform to the requirements of ASTM D 3034 with an SDR of 26 and a minimum stiffness of 46 lb./in. - in and 115

lb./in. - in, respectively. Joints for sewer pipe shall be either push-up or mechanical conforming to the requirements of ASTM 3212. Gaskets for sewer pipe shall conform to the requirements of ASTM F 477. Approved adaptors shall be used for making connections between PVC pipe and concrete manholes.

**C. Service Laterals:** Service laterals for local services shall consist of fittings, pipe lengths, and connections of 6 inch or 4 inch pipe as noted on the plans. The fittings, pipe lengths and plugs shall be of the same material as the run pipe unless otherwise indicated on the Contract Drawings. The modified sewer tees shall be an integral part of the run pipe. The remainder of the branch shall consist of standard fittings (elbows, reducers, and lengths of pipe) in accordance with the manufacturer's standard products and as specified. Pipe lengths and joint connections shall meet the specified requirements for the type materials used.

All service lines shall extend a maximum of up to 5 feet from house fronts of residences and public buildings and up to the property lines of businesses.

**4.2 Casing Pipe:** Steel pipe utilized as casing at locations shown on the Contract Drawings shall be new round piling pipe conforming to the requirements of ASTM A 252 or A 139. Casing diameter shall be adequate to allow pushing of the specified diameter of sewer pipe or force main and make proper connections at the ends. Minimum Wall Thickness for steel casing is 0.25 inch. (Hwy) and 0.28 inch (RR).

**4.3 Wash Gravel Bedding Material:** Select Granular material for pipe bedding shall be coarse concrete aggregate. The coarse concrete aggregate shall conform to the gradation sizing Number 467 specified in Table 2 of ASTM Standard Specification C-33. (See Following Table :)

#### SIZE NO. 467

| <u>Nominal Size</u><br><u>(Sieves w/Square Openings)</u> | <u>Percent Passing by Weight</u> |
|----------------------------------------------------------|----------------------------------|
| 2"                                                       | 100                              |
| 1 - 1/2"                                                 | 95 - 100                         |
| 3/4"                                                     | 35 - 70                          |
| 3/8"                                                     | 10 - 30                          |
| No. 4                                                    | 0 - 5                            |

**4.4 Stabilization Material:** Stabilization Material shall be a pit run mixture of sand and gravel. The sand shall be hard, sharp and durable particles. All gravel shall pass a 1 - 1/2" sieve.

**4.5 Clay Gravel Material:** Clay Gravel Material shall meet MDOT Standards Class 6, Group C.

**4.6 Concrete:** Concrete shall be in accordance with the requirements of Technical Specifications - CONCRETE

**4.7 Select Backfill:** General: The select material shall be composed of a natural or artificial mixture of sand, silt, clay or soil binder or other material of satisfactory cementing value. The sand shall be hard, sharp, and durable particles, preferably siliceous. The binder shall be a grade of clay or other material having satisfactory cementing qualities and shall be homogenous in character, free from vegetable matter, clay balls or other deleterious substances that cannot be classed as serviceable base material.

A. Gradation: Any coarse aggregate contained in the material shall pass the one and one-half (1-1/2), sieve and not more than thirty-five percent (35%) shall be retained in the Number 10 sieve. The plasticity index (P.I.) shall not exceed 12, nor shall the liquid limit exceed 30.

The composite selected sand-clay material passing the Number 10 sieve shall conform to the following minimum and maximum gradation limits:

| <u>Sieve</u>           | <u>Percent Passing by Weight</u> |
|------------------------|----------------------------------|
| Number 40              | 40 - 85                          |
| Number 60              | 30 - 70                          |
| Number 270             | 8 - 30                           |
| Silt (.05 to .005 mm)  | 3 - 15                           |
| Clay (Passing .005 mm) | 3 - 15                           |

**4.8 Backfill:** All other backfill shall consist of excavated material removed from the trench unless otherwise directed by the Engineer. CONTRACTOR shall separate poor and acceptable material during excavation. Failure to separate material shall require CONTRACTOR to furnish acceptable backfill at no additional cost to the project.

## **5.0 CONSTRUCTION:**

### **5.1 Earthwork:**

A. Site Preparation: Topsoil shall be stripped and stockpiled in accordance with Technical Specifications - Restoration of Roads, Driveways, Fences, Lawns, and other Grassed Areas.

All vegetation such as brush, heavy sod, heavy growth of grass, decayed vegetative matter, rubbish and any other unsuitable material within the area of

trenching shall be stripped or otherwise removed before the trenching is started, and in no case, shall such objectionable material be allowed in the trench.

Stripping operation shall be to a depth of not less than 6 inches in all cases.

B. Asphalt or Concrete Removal: Before trenching operations begin, the existing asphalt or concrete pavement shall be cut to full depth to give a straight vertical edge when removed. The asphalt or concrete shall be disposed of offsite by the Contractor. While removing the asphalt or concrete in the trench line, never shall the adjacent asphalt be raised or pulled from its base.

C. Trenching: The Contractor shall determine all requirements for trench dimensions, alignment, and grades. The trench shall be excavated in conformance with all federal, state and local regulations for the protection of the workmen. Shoring, sheeting and/or a moveable form shall be used as required to provide earth stability during the laying operations.

The final excavation of the trench for the pipe installation shall be as indicated on the Plans. Minor variations in horizontal (within the permanent easement) or vertical alignment during construction shall be made during construction (with the Engineer's approval) to facilitate ease of installation and operation (due to potential conflicts; i.e., utility conflict) at no additional cost to the Owner except for additional piping, if any. The trench from the top of the pipe down to the bottom of the bedding shall be of a consistent width as indicated on the plans. Should the excavated width of the trench be larger than the design width, the Engineer may direct that a higher type or class of bedding be used; or other adjustments be made to increase the load carrying capacity of the pipe.

The Contractor shall not excavate more trenches in advance of pipe laying than is necessary to perform the work efficiently. No more than 100 feet of open trench shall be allowed unless approved by the Engineer.

Excavated material shall be placed in a manner that will not obstruct sidewalks, driveways, or other structures. Excavated material shall not be placed so as to surcharge the walls and jeopardize trench stability.

If adequate area is not available on the construction site, the CONTRACTOR will be required to stockpile material off site. Owner shall not bear any additional expense.

Ledge Rock, boulders and large stones shall be removed to provide a minimum clearance of 4 inches (10 cm) below and on each side of all pipes.

D. Disposal: The Contractor shall satisfactorily dispose of all excess earth from excavations either in approved (by the Engineer) areas within the construction limits or away from the project in disposal sites obtained by the Contractor.

The Contractor will be permitted to mound excess earth over the trench to a maximum depth of 12 inches above the original ground surface or finished grade where the trench is located in unimproved property. Wasting of excess excavated material will not be permitted within any road ROW. All material within the construction limits shall be placed so that natural drainage is maintained and the surface shall be graded to a smooth and uniform appearance. The disposal of waste and excess excavating materials, including hauling, handling, grading, and surfacing shall be subsidiary obligation of the contractor and no separate payment will be made. Therefore, the cost of such work shall be included in the Contract Unit Price for installation of sewer pipe.

**E. Dewatering:** The site shall be kept free of surface water at all times. The Contractor shall install drainage ditches and dikes and shall perform all pumping and other work necessary to divert or remove rainfall and other accumulations of surface water from the excavations. The diversion and removal of surface water shall be performed in a manner that will prevent the accumulation of water behind temporary structures or at any other locations within the construction area where it may be detrimental. The Contractor shall provide, install, and operate sufficient trenches, sumps, pumps, hoses, piping, well points, deep wells, etc., necessary to depress and maintain the ground water level at least one foot below the base of the excavation during all stages of construction operations. The ground water table shall be lowered in advance of excavation and maintained a minimum of one foot below the lowest excavation sub grade made until the structure has sufficient strength and weight to withstand horizontal and vertical soil and water pressures.

Where groundwater is encountered, the Contractor shall make the effort necessary to secure a dry trench bottom before laying pipe. In sandy and in other suitable type soils, dewatering shall be done by well pointing. If, in the opinion of the Engineer, the Contractor has failed to obtain an absolutely dry trench bottom by insufficient use of all known methods of trench dewatering, the Engineer may order the Contractor to excavate below grade and place not less than 6 inches of graded crushed stone fill material over the trench bottom to form trench drains to suitably located sumps and to remove the water by bailing or pumping. The graded crushed stone fill material shall be placed at the Contractor's own expense and shall be of such depth that there shall be not water in bell holes at the time of coupling pipe. All costs of equipment, labor, and materials required for dewatering shall be included in the pipe laying operation.

**F. Bedding:** The Contractor shall satisfactorily shape the trench area (to specified line, grade and cross section) to receive bedding material. The bottom of the trench shall be undisturbed soil. Should the Contractor over excavate the trench without direction from the Engineer, the trench shall be brought up to grade with select backfill and compacted to at least 90% of maximum laboratory density as measured by AASHTO T 99. Such additional work and materials for over excavation without direction of the Engineer shall be at the expense of the Contractor.

Holes for the bells shall be provided at each joint in the sub grade or in the



granular fill bedding material as required. The holes shall be no larger than necessary for joint assembly and assurance that the pipe barrel will lie flat on the material. The Contractor shall install the proper bedding for the respective type of pipe and depth of installation as shown in the details and schedules on the plans. When depths vary in a particular manhole run, the Contractor shall change bedding systems in accordance with the depth installation requirements.

1. Stabilization Materials: When the sub grade is found to be unstable or to include ashes, refuse, organic material, or other unsuitable material, the Engineer may direct that the subgrade be over excavated to remove such material. The depths of over excavation shall be as directed by the Engineer. Stabilization material shall be placed into the over excavated area of the trench and shall be paid for in accordance with these specifications. Stabilization shall be compacted to at least 90% of maximum laboratory density in six-inch lifts.

2. Bedding Materials: As detailed in the plans, bedding material shall be placed to the specified depth below the pipe and tamped to a minimum of 90% of maximum laboratory density as determined in accordance with AASHTO T 99. Following placement of pipe, additional bedding material shall be placed and consolidated under the haunches of the pipe. Special tools shall be required to work the material into place and leave no voids beneath the pipe. The bedding material shall be tamped along the spring line (or along the top of the bedding material as indicated) of the pipe to sufficiently compact the material insofar as practical.

The Engineer may direct additional moisture be added to the bedding material to aid in the compaction effort. Mechanical tampers may be employed to aid the process. Depending on the particular bedding required, additional bedding shall be added and tamped to a minimum of 90% of maximum laboratory density, with AASHTO T-99.

3. Select Backfill: Select backfill shall be placed in 6 inch lifts and tamped to a minimum laboratory density with AASHTO T-99. Overall depth of the select backfill shall be as directed by the Engineer.

4. Normal Condition Bedding: Under normal conditions the trench bottom shall be undisturbed earth shaped to the specified line, grad, and cross section with proper bell holes at each joint to ensure that pipe barrel lies flat on trench bottom. The bedding material will be selected native materials excavated from the trench and placed in two lifts. The first lift being placed up to the spring line of the pipe and extending out to the trench walls and hand tamped to a minimum of 90% of maximum laboratory density. Special care shall be used in placing and tamping bedding to insure no voids under the haunches of the pipe. The second lift shall extend to approximately 6" above pipe (Material permitting) and hand tamped to 90% density.

5. Backfilling: Upon completion of placement of select material the excavated materials shall be immediately placed back into the trench. Specific requirements are:

a. Backfill requirements for road crossings, parking lots, driveways, and sidewalks shall be in accordance with Technical Specifications - RESTORATION OF ROADS, DRIVEWAYS, FENCES, LAWNS, AND OTHER GRASSED AREAS.

b. Backfill requirements for unimproved areas (pastures, wooded areas) shall consist of placement and shaping of the soil in such a manner as to allow maximum natural consolidation. No compaction of the general backfill in the unimproved areas will be required, except that caused by conventional shaping equipment.

c. No debris shall be used as backfill which has a volume in excess of one-half of one cubic foot or a weight excess of 75 pounds.

6. Sheeting Removal: Wooden sheeting or other thick sheeting or shoring members which have been driven or otherwise placed along the trench walls to an elevation below the spring line of the pipe shall be cut off at the spring line or higher and left in place.

7. Grading and Grassing: Final grading and grassing shall be in accordance with Technical Specifications - RESTORATION OF ROADS, DRIVEWAYS, FENCES, LAWNS, AND OTHER GRASSED AREAS.

**5.2 PIPE HANDLING AND STORAGE:** Pipe shall be handled, staked, and stored in accordance with manufacturer's printed literature. The Contractor shall provide security as required to prevent damage by vandals. PVC pipe shall be shaded from sunlight for extended lengths of time. Pipe damaged during storage and handling shall be rejected.

**5.3 PIPE LAYING:** Pipe laying shall proceed upgrade with the spigot ends of the bell-and-spigot pipe and tongue ends of the tongue and groove pipe jointing in the direction of flow. Each pipe shall be laid true to line and grade and in such a manner as to form a close concentric joint with the adjoining pipe and to prevent sudden offsets of the flow line. As the work progresses, the interior of the sewer shall be cleared of all dirt and superfluous materials of every description. Where cleaning after laying is difficult because of small pipe size, a suitable swab or drag shall be kept in the pipe and pulled forward past each joint immediately after the jointing has been completed. Trenches shall be kept free of water and pipe shall not be laid when the condition of the trench or the weather is unsuitable for such work. At times when work is not in progress, open ends of pipe and fittings shall be securely and satisfactorily closed so that no trench water, earth or other substance will enter the pipe or fittings.

Pipe laying shall be performed in such a manner that no foreign material enters the pipe. The Engineer may require that before lowering pipe, heavy canvas bags be placed over each end, and left in place until joints are ready to be made. If water is in the trench, the seals shall remain in place until the trench is pumped completely dry. If conditions

are unsuitable, no pipe shall be laid until satisfactory laying conditions are obtained in accordance with the above specified requirements.

The Contractor shall utilize a commercial grade laser beam specifically manufactured to aid in maintaining grade and alignment of pipelines during installation. The primary unit shall be mounted on a heavy-duty base and firmly anchored in the downstream manhole of the reach under construction. The maximum distance shall not exceed four hundred feet (400') per set-up.

Each joint of pipe shall be installed using an approved target to align the pipe with the projected laser beam. The methods and procedures shall be in strict accord with the manufacturer's recommendations and instructions. Proper ventilation shall be maintained at all times. Care shall be exercised in order to prevent bumping or misalignment of the projected beam. Sewer lines shall be laid such that the installed variation of invert elevations when compared with the construction plans does not exceed 0.05 feet. Sewer lines in which said variation exceeds 0.05 feet may be rejected. Sewer pipe shall be visually inspected for alignment by lamping, televising or by other appropriate means to determine alignment.

Whenever a movable steel box is used in place of sheeting, the Contractor shall take care to prevent the pipe from moving when the steel box is moved.

**5.4 PIPE JOINTING:** Piping shall be jointed in accordance with the manufacturer's printed recommendations. Gaskets shall be firmly set within the bells and grooves as required. The manufacturer's recommended lubricant or an approved equal shall be applied for slip type joints.

**A. PVC Pipe Joint Construction:** The bell and spigot ends of PVC sewer pipe shall be cleaned of all foreign material that could interfere with proper assembly of the joints. The spigot ends shall be cleaned one inch (1") beyond the joint assembly reference mark.

The spigot end of the pipe shall be thoroughly lubricated in accordance with the manufacturer's recommendations. The coating should be the equivalent of a brush coat of enamel paint and maybe applied by hand, cloth, pad sponge or glove.

The lubricated spigot end shall be inserted into the bell keeping the pipe length in proper alignment. The bell shall be braced while the spigot end is pushed in under the rubber ring, so that previously completed joints in the line will not be closed up. The spigot end shall be pushed into the bell until the reference mark is flush with the end of the bell.

Generally, the installation and jointing of PVC Pipe shall conform to the requirement so the latest edition of ASTM D-2321, "Underground Installation of Flexible Thermoplastic Sewer Pipe".

B. Ductile Iron Pipe Joint Construction: The installation and jointing of ductile iron pipe and shall generally conform to the applicable provisions of AWWA Standard Specifications C-600 for pipe laying.

Where mechanical joint pipe is used, the surfaces which come in contact with the gasket shall be thoroughly brushed with a wire brush just prior to assembly. The gasket should be brushed with soapy water prior to installation to remove loose dirt and to lubricate gasket as it is forced into its retaining space.

When tightening bolts, it is essential that the gland be brought up toward the pipe flange evenly. The bolts should be partially tightened; the bottom bolt first, then the top; next the bolts on either side; and last, the remaining bolts. Overstressing of bolts to compensate for poor installation will not be permitted. Bolt torque shall be in accordance with manufacturer's specifications.

All joints of whatever type shall be completely water tight after being subjected to the required tests.

C. Jointing Dissimilar Pipes: Suitable adaptor couplings are required for connecting dissimilar pipes. The couplings shall be approved by the Engineer before installation.

**5.5 SERVICE LATERALS (LINES)**: Modified sewer tees shall be installed on the run pipe at the appropriate field locations. Service lines of the sizes specified shall be laid to a uniform grade so that the customer being served can be tied-in using good construction practices. All tamping and backfilling operations shall be performed the same as on main line pipe. Removable plugs shall be securely installed in pipe ends and a 2" x 2" treated post extending 12" above the ground line shall mark the pipe end location.

## **5.6 RELATION TO WATER MAINS**:

A. Horizontal Separation: Whenever possible, sewers should be laid at least 10 feet, horizontally, from any existing or proposed water main. Should local conditions prevent a lateral separation of 10 feet, a sewer may be laid closer than 10 feet to a water main if:

1. It is laid in a separate trench.
2. It is laid in the same trench with the water mains located at one side on a bench of undisturbed earth.
3. In either case the elevation of the crown of the sewer is at least 18 inches below the invert of the water main.

B. Vertical Separation: Whenever sewers must cross under water mains, the sewer

shall be laid at such an elevation that the top of the sewer is at least 18 inches below the bottom of the water main. When the elevation of the sewer cannot be buried to meet the above requirement, the water main shall be relocated to provide this separation or reconstructed with slip-on or mechanical-joint ductile iron pipe, or prestressed concrete cylinder pipe for a distance of 10 feet on each side of the sewer. One full length of water main should be centered over the sewer so that both joints will be as far from the sewer as possible.

**C. Special Conditions:** When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the water main should be constructed of slip-on or mechanical-joint ductile iron pipe. Or prestressed concrete cylinder pipe and the sewer constructed of mechanical-joint ductile iron pipe and both services should be pressure tested to assure water tightness.

## **5.7 CONTINUATION OF SERVICE**

The existing wastewater system shall remain in operation during the duration of the project. Should removal of facilities from operation become necessary, a plan which will avoid or minimize pollution effects on any receiving stream and provide alternate service for wastewater facilities shall be reviewed and approved in advance by the Mississippi Department of Environmental Quality and shall be adhered to during construction.

## **6.0 TESTING**

**6.1 PVC PIPING:** Material test shall be conducted during the manufacturing process and the results shall be included as part of the submittal. No other material test shall be required.

**6.2 BEDDING MATERIAL AND STABILIZATION MATERIAL:** Test for gradation and test for material passing the No. 40 sieve shall be as follows:

|                  |               |
|------------------|---------------|
| Gradation        | - AASHTO T 88 |
| Liquid Limit     | - AASHTO T 89 |
| Plasticity Index | - AASHTO T 90 |

One set of each test listed above will be required for every 500 cubic yards or major fraction thereof.

**6.3 COMPACTION TESTS:** Compaction tests shall be performed in accordance with AASHTO T 191 or ASTM D 2922. Maximum compaction shall be determined in accordance with AASHTO T99. Compaction tests for sewer pipe related work shall not be less than as follows:

|                             | (Number of Compaction Tests) |                |    |
|-----------------------------|------------------------------|----------------|----|
|                             | AASHTO T-99                  | AASHTO T-191   | or |
| ASTM D 2922                 |                              |                |    |
| Select Backfill Material OR |                              |                |    |
| Stabilization Material      | 1                            | One per 100 CY |    |
| Bedding Material            | 2                            | One per 600 LF |    |
| Tamped Backfill             | 2                            | One per 600 LF |    |

**6.4 INFILTRATION/EXFILTRATION TEST:** The Contractor shall provide all plugs, water supply, measuring devices, and all other equipment, material, labor and supervision to measure the infiltration and exfiltration tests as specified below. The Contractor shall perform the test in the presence of the Engineer. All gravity sewer pipe shall be tested in accordance with the following applicable requirements.

A. Infiltration Test: The infiltration test shall be conducted between adjacent manholes. The outlet pipe on the downstream manhole shall be plugged and tested for water tightness to the satisfaction of the Engineer. The accumulated depth of water in the downstream manhole shall be read at 12 hour intervals for two (2) days and the infiltration rate calculated from the data obtained. Any section exceeding an infiltration rate of 200 gallons/day/inch diameter/mile shall be relayed at the Contractor's expense. This means that the Contractor shall locate and repair leaks as necessary to pass the infiltration test. Infiltration test shall be utilized only when ground water is above pipe.

B. Exfiltration Test: The exfiltration test shall be conducted between adjacent manholes. The inlet pipes in the downstream and upstream manholes shall be plugged. The line being tested shall be filled with water until water depth becomes two (2) feet above top of pipe being tested in the upstream manhole. The water loss shall be measured in the upstream manhole at 12 hour intervals for two (2) days and the exfiltration rate calculated from the data obtained. Any section exceeding an exfiltration rate of 200 gallons/day/inch diameter of pipe/mile shall fail the test. The Contractor shall locate and repair leaks as necessary to pass the exfiltration test. A low-pressure air test conforming to ASTM C-828-80 or latest revision may be used in lieu of the exfiltration test.

**6.5 DEFLECTION TESTS:** 100% of the PVC gravity sewer shall be tested 30 days after the final backfill has been in place by the following method:

Use a "Go-, no-go" mandrel which is sized to such dimensions that it will not "go" when encountering a deflection greater than 5%. The instructions for its use are as follows:

A. Completely flush the line making sure the pipe is clean of any mud or debris that would hinder the passage of the mandrel.

B. During the final flushing of the line, attach a floating block or ball to the end of the mandrel, pull rope and float the rope through the line. (A) nylon ski rope is recommended)

C. After the rope is threaded through the line, connect the pull rope to the mandrel and place the mandrel in the entrance of the pipe.

D. Connect a retrieval rope to the back of the mandrel to pull it back if necessary.

E. By hand, remove all the slack in the pull rope and place a tape marker on the top at the end of the pipe where the mandrel will exit, determining the location of the mandrel in the line.

F. By hand, draw mandrel through the sewer lines. If any irregularities or obstructions are encountered in the line, they shall be corrected by the Contractor.

G. If a section with excessive deflection is found, locate it; dig down and uncover the pipe; if any damaged pipe is found, replace it; if pipe is not damaged, replace and thoroughly tamp haunching and initial backfill; replace remainder of backfill.

H. Re-test this section for deflection.

## **Sewer/Water Utility – Trace Wire Specification**

### **1.0 General**

All trace wire shall have HDPE insulation intended for direct bury, color coated per APWA standard for the specific utility being marked. THHN is prohibited from use in the tracer wire system.

All trace wire, test stations and accessories shall be supplied by a single manufacturer and domestically made in the USA.

All tracer wire and accessories shall be installed per plan details and per manufacturers recommended installation methods. All wire and connectors shall be rated for direct bury applications.

### **2.0 Materials**

Copper Clad Steel (CCS) Trace Wire

Open Trench – 12 Gauge Copper Clad Steel with a Break Load of 452 pounds

Directional Drilling - 12 Gauge Copper Clad Steel with a Break Load of 1,150 pounds

Connectors

2-Way Splice Connector with Strain Relief

3-Way Connector

Termination/Access/Test Stations

Non-Roadway: Equal to Copperhead LD14TP

Concrete / Driveway: Equal to Copperhead CD14TP

Roadway: Equal to Copperhead RB14TP

Fire Hydrant: Equal to Copperhead T2-FLPKG

Grounding

Magnesium Anode: Equal to Copperhead ANO-12

### **3.0 Testing**

All new trace wire installations shall be located using typical low frequency (512Hz) line tracing equipment, witnessed by the contractor, engineer and facility owner as applicable, prior to acceptance of ownership.

This verification shall be performed upon completion of rough grading and again prior to final acceptance of the project. Continuity testing in lieu of actual line tracing shall not be accepted.

### **4.0 Connectors**

All mainline trace wires must be interconnected in intersections, at mainline tees and mainline crosses. At tees, the three wires shall be joined using a single 3-way lockable



connector. Connectors shall be dielectric silicon filled to seal out moisture and corrosion, and shall be installed in a manner so as to prevent any uninsulated wire exposure.

Non-locking friction fit, twist on or taped connectors are prohibited.

## **5.0 Termination/Access/Test Stations**

All trace wire termination points must utilize an approved tracer wire access box, specifically manufactured for this purpose or as detailed on the plans

All grade level/in-ground access boxes shall be appropriately identified with “sewer” or “water” cast into the cap and be color coded (blue – water / green – sewer).

Test stations at dead ends shall be two-terminal.

Test stations in between dead ends shall be single terminal.

A minimum of 2 ft. of excess/slack wire is required in all trace wire access boxes after meeting final elevation.

Grounding anode wire shall be connected to the identified (or bottom) terminal on all access boxes.

Hydrants – Trace wire must terminate at an approved above-ground trace wire access box, properly affixed to the hydrant grade flange.

## **6.0 Grounding**

Trace wire must be properly grounded at all dead ends/stubs.

Grounding of trace wire shall be achieved by use of a drive-in magnesium grounding anode rod with a minimum of 20ft of #12 red HDPE insulated copper clad steel wire connected to anode specifically manufactured for this purpose, and buried at the same elevation as the utility.

Where the anode wire will be connected to a trace wire access box, a minimum of 2 ft. of excess/slack wire is required after meeting final elevation.

## **7.0 Sanitary Sewer System**

A mainline trace wire must be installed, with all service lateral trace wires properly connected to the mainline trace wire, to ensure full tracing/locating capabilities from a single connection point.

Lay mainline trace wire continuously, by-passing around the outside of manholes/structures on the North or East side.

Trace wire on all sanitary service laterals must terminate at the cleanout and located directly above the service lateral at the edge of road right of way as detailed in the plans.

## **8.0 Water System**

A mainline trace wire must be installed, with all service lateral trace wires properly connected to the mainline trace wire, to ensure full tracing/locating capabilities from a single connection point.

Lay mainline trace wire continuously, by-passing around the outside of valves and fittings on the North or East side.

Trace wire on all water service laterals must terminate at an approved trace wire access box color coded blue and located directly above the service lateral at the edge of road right of way.

Above-ground tracer wire access boxes will be installed on all fire hydrants.

All conductive and non-conductive service lines shall include tracer wire.

## **9.0 Installation**

Trace wire systems must be installed as a single continuous wire, except where using approved connectors. No looping or coiling of wire is allowed.

Trace wire shall be installed at the bottom half of the pipe and secured (taped/tied) at 5' intervals.

Trace wire on all service laterals/stubs must terminate directly above the utility, at the edge of the road right-of-way, but out of the roadway.

At all mainline dead-ends, trace wire shall go to ground using an approved connection to a drive-in magnesium grounding anode rod, buried at the same depth as the trace wire.

Mainline trace wire shall not be connected to existing conductive pipes. Treat as a mainline dead-end, ground using an approved waterproof connection to a grounding anode buried at the same depth as the trace wire.

All service lateral trace wires shall be a single wire, connected to the mainline trace wire using a mainline to lateral 3-way connector, installed without cutting/splicing the mainline trace wire.

In occurrences where an existing trace wire is encountered on an existing utility that is being extended or tied into, the new trace wire and existing trace wire shall be connected using approved splice connectors, and shall be properly grounded at the splice location as specified.

Trace wire on all water service laterals must terminate at an approved trace wire access box color coded blue and located directly above the service lateral at the edge of road right of way.

Above-ground tracer wire access boxes will be installed on all fire hydrants.

All conductive and non-conductive service lines shall include tracer wire.

## WATER SYSTEMS

### 1) GENERAL

- a) This item shall consist of furnishing all of the necessary materials, supervision, labor, tools, equipment and incidentals, and the installation of various types and sizes of water pipe and related items in accordance with the contract drawings and specifications, as stated in the Proposal.

### 2) APPLICABLE PUBLICATIONS

- a) The following publications form a part of these specifications and where referred to by basic designation only, are applicable to the extent indicated. The latest editions of the publications referenced shall apply to the work.

- i) AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- A 139 Electric-Fusion (Arc) welded steel pipe (sizes 4 inch and over).

- A 252 Welded and Seamless steel pipe piles.

- C 31 Making and Curing Concrete Compressive and Flexural Strength Test Specimens in the Field.

- C 33 Concrete Aggregates

- C 39 Test for Compressive Strength of Cylindrical Concrete Specimens.

- D 2922 Density of Soil Aggregate in place by the clear Method (shallow depths).

- ii) AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

- 21.10 Gray Iron and Ductile Iron Fittings, 3 inch through 48 inch for Water and other Liquids.

- 21.11 Rubber Gasket Joints for Cast Iron and Ductile Iron Pressure Pipe and Fittings.

- 21.50 Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand-line Molds, for Water or other Liquids.

iii) AMERICAN WATER WORKS ASSOCIATION (AWWA)

C 104 Cement-Mortar Lining for Cast Iron Pipe and Fittings for Water and Other Liquids.

C 106 Cast Iron Pipe Centrifugally Cast in Metal Molds, for water and other Liquids.

C 110 Gray Iron and Ductile Iron Fittings, 3 inch through 48 inch, for Water and Other Liquids.

C 111 Rubber Gasket Joints for Cast Iron and Ductile Iron Pressure Pipe and Fittings.

C 150 Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds, for Water or other Liquids.

iv) AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS (AASHTO)

T-88 Particle Size Analysis of Soils.

T-89 Determining the Liquid Limit of Soils.

T-90 Determining the Plastic Limit and Plasticity Index of Soils.

T-99 Moisture Density Relations of Soils Using a 5.5 lb. Rammer and 12 inch Drop.

T-191 Density of Soil In-Place by the Sand-Cone Method.

v) MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Standard Specifications for Road and Bridge Construction 1990 Edition.

3) **SUBMITTALS**

a) The following submittals shall be required for the respective materials used in the work. All submittals shall be submitted through the Contractor to the Engineer.

i) Ductile Iron Pipe: The following submittals shall be required for ductile iron pipe systems utilized on the project. The Contractor shall furnish

manufacturer's certificates certifying that the pipe and fittings conform to the requirements as specified hereinafter under Article 4.0, Materials. In addition, the submittals shall include the following:

- (1) Joints: The following shall be required for ductile iron joints.
- (2) Drawings or Manufacturer's Catalogue data indicating dimensions and tolerance.
- (3) Gaskets shall be tested in accordance with the respective standards as indicated in ANSI 21.11 and results shall be included in the submittals. Test shall be for similar materials on the gaskets and be not more than one year old.
- (4) Mechanical Joints: Should the Contractor elect to use mechanical joints in lieu of push-on joints, manufacturer's data shall be submitted in accordance with the "Special Requirements for the Mechanical Joint" as stated in ANSI 21.11 (AWWA C 111).

ii) Ductile Iron Pipe Submittal Shall Include the Results of:

- (1) Tension Test
- (2) Impact Test
- (3) Low Temperature Impact Test  
Sampling procedure shall be as indicated in ANSI 21.51.

b) PVC Pipe: The Contractor shall furnish manufacturer's certificates certifying that the pipe and fittings conform to the requirements of these specifications and appropriate construction drawings.

#### 4) **MATERIALS - WATER SYSTEM**

a) Ductile Iron Pipe:

- i) Ductile iron pipe shall be designed in accordance with the latest revision of ANSI/AWWA C51/A21.51), rated working pressure of 350 psi plus a 100 psi surge allowance; a 2 to 1 safety factor on the sum of working pressure plus surge pressure in Type 3 laying condition with a depth of cover as required per plans.
- ii) Pipe shall have standard asphaltic coating on the exterior. Pipe also shall have a cement mortar lining on the interior in accordance with the latest revision of ANSI/AWWA C104/A21.4. If corrosion protection is required,

polyethylene encasement shall be installed prior to the pipes installation in accordance with ANSI/AWWA C105/A21.5-88.

- iii) All non-restrained pipe shall be furnished with push-on type joints such as "Fastite," or equal. Joints shall be in accordance with the latest revision of ANSI/AWWA C111/A21.11 and shall be furnished complete with all necessary accessories.
- iv) Where restrained joint pipe is required, "Fast Grip", "Flex-Ring", or "Field Flex-Ring" or approved equal shall be used. The length of restrained pipe shall be as tabulated or noted on the plans.
- v) Ductile iron fittings shall conform to the latest revisions of either ANSI/AWWA C110/A21.10 or ANSI/AWWA C153/A21.53. Fittings, linings, and coatings shall be as specified for the pipe above.
- vi) All pipe, fittings and accessories shall be installed and tested in accordance with the latest revision of AWWA C600. Newly installed ductile iron water mains shall be disinfected in accordance with the latest revision of AWWA C651 prior to placing in service.

b) PVC Pipe

- i) PVC pipe for this project shall be PVC, C-900, Class 200. This standard covers the installation of Pressure Class 100, 150 and 200 PVC pipe complying with AWWA Standard C-900-89. PVC pipe shall bear the National Sanitation seal for potable water.
- ii) The pipe shall be equipped with a push on joint in a single elastomeric gasketed joint. It is assembled by positioning the elastomeric gasket in the annular groove of the bell and inserting the spigot end of the pipe into the bell. The spigot end of the pipe compresses the gasket radially to form a positive seal. The gasket and annular groove are designed, sized and shaped so that the gasket will resist displacement. Care shall be taken so that only the correct elastomeric gasket, compatible with the annular groove of the bell, is used. Insertion of the elastomeric gasket in the annular groove of the bell must be in accordance with the manufacturer's recommendations.

c) Gate Valves:

- i) Where indicated on the Plans or directed by the ENGINEER, the CONTRACTOR shall furnish and install gate valves as hereinafter specified.
- ii) All gate valves shall be cast iron mechanical joint, Mueller A-2360, equivalent or better. All gate valves shall be furnished with O-ring packing and 2" square

operating nut, AWWA 200lb., for cast iron water main.

- iii) Valve boxes shall be cast iron top and bottom. Extension pieces shall be provide as required.
- iv) Payment for furnishing and installing gate valves with box shall be made at the contract unit price per valve according to type and size as listed in the proposal.
- v) All valves will be set at a perfect 90 degree angle from level pipe, (perpendicular) so as to be easily accessible through properly set valve box as per specifications above.
- vi) The CONTRACTOR shall furnish and install either a two-piece or three-piece, slip type, cast iron valve box over each gate valve. Valve boxes will be set over valve operating nut, centered so as to be easily accessible with a valve operating wrench or key. They will be set to correspond with the finished grade of street, lot, or easement. No dirt will be left in box; box will not rest directly on valve body.

d) Fittings, Valves and Hydrants, etc.

- i) All fittings, valves and valve boxes, hydrants, and other appurtenances are to be set at the points indicated on the plans, or as directed by the ENGINEER, and omission to do so shall be corrected by the CONTRACTOR without extra cost to the OWNER.
- ii) All fittings shall either be Ductile Iron Compact (ANSI/AWWA C153/A21.53) or Cast Iron (ANSI/AWWA-C110/A21-10) and shall have mechanical joint ends and mechanical joint restraints (Series 1120) and shall be incorporated in the design of the follower gland and shall include a restraining mechanism which, when actuated, imparts multiple wedging action against the pipe, increasing its resistance as the pressure increases. Flexibility of the joint shall be maintained after burial. Glands shall be manufactured of ductile iron conforming to ASTM A 536-80. Restraining devices shall be of ductile iron heat treated to a minimum hardness of 370 BHN. Dimensions of the gland shall be such that it can be used with the standardized mechanical joint bell and tee-head bolts conforming to ANSI/AWWA A21.11 and ANSI/AWWA C153/A21.53 of latest revision. Twist-off nuts shall be used to insure proper actuating of the restraining devices.
- iii) The mechanical joint restraint device shall have a working pressure of a least 250 psi with a minimum safety factor of 2:1 and shall be EBAA Iron., MEGALUG or equal.



- iv) To improve the sealing capacity, the gaskets for all mechanical joints conforming to the requirements of ANSI/AWWA C110/A/21.10, C111/A21.11, or C153/A21.53 shall be of a design that causes the gasket to deflect approximately 30% during assembly of the mechanical joint. The gasket material shall conform to the requirements of ANSI/AWWA C111/A21.11, Section 1-6.4 of the latest revision. Mechanical joint gaskets shall be EBAA Iron's EBAA Seal- Improved Mechanical Joint Gasket or approved equal.
- v) Fittings (bends, tees, plus, and caps) shall be securely braced by mechanical joint restraints, as indicated on the Plans, to prevent the possibility of blowing off under pressure. And a full length of pipe shall be installed on each end of the fitting. Then cut pieces can be installed beyond the full lengths of pipe.
- vi) The prices bid furnishing and installing valves, fittings, etc., shall include compensation for furnishing mechanical joint restraints as required at beds, tees, plugs and caps. No separate or extra compensation will be allowed for any of the above specified incidental work or material.

e) Plugs and Caps

- i) Where indicated on the Plans, or as directed by the ENGINEER, the CONTRACTOR shall install plugs for anticipated future extensions by placing a branch fitting (tee or cross) in the line and plugging the unused branch or branches. In general, such plugs will be located at street intersections where present plans provided lines running in only two or three directions from the intersections and where, in the opinion of the ENGINEER, a connection may be required for future extension. Where "deadend" lines are installed, the ends of such lines shall be plugged or capped as required.
  - ii) For the various hot taps required according to the plans, and up to 12 inches, the JCM 432, stainless Tapping Sleeve shall be required. The CONTRACTOR shall furnish all materials for these various taps and the OWNER will actually make the tap.
- f) Casing Pipe: Steel pipe utilized as casing at locations shown on the Contract Drawings shall be new round piling pipe conforming to the requirements of ASTM A 252 or A 139. Casing diameter shall be adequate to allow pushing of the specified diameter of water pipe and make proper connections at the ends. Minimum Wall Thickness for steel casing is 0.375 inch.
- g) Wash Gravel Bedding Material: Select Granular material for pipe bedding shall be coarse concrete aggregate. The coarse concrete aggregate shall conform to the gradation sizing Number 467 specified in Table 2 of ASTM Standard Specification C-33. (See Following Table.)

### SIZE No. 467

| Nominal Size<br>(Sieves w/Square<br>Openings) | Percent Passing by<br>Weight |
|-----------------------------------------------|------------------------------|
| 2"                                            | 100                          |
| 1-1/2"                                        | 95–100                       |
| 3/4"                                          | 35–70                        |
| 3/8"                                          | 10–30                        |
| No. 4                                         | 0–5                          |

- h) Stabilization Material: Stabilization Material shall be a pit run mixture of sand and gravel. The sand shall be hard, sharp and durable particles. All gravel shall pass a 1 - 1/2" sieve.
- i) Concrete: Concrete shall be in accordance with the requirements of Technical Specifications – CONCRETE.
- j) Select Backfill
- i) General: The select material shall be composed of a natural or artificial mixture of sand, silt, clay or soil binder or other material of satisfactory cementing value. The sand shall be hard, sharp, and durable particles, preferably siliceous. The binder shall be a grade of clay or other material having satisfactory cementing qualities and shall be homogenous in character, free from vegetable matter, clay balls or other deleterious substances that cannot be classed as serviceable base material.
- ii) Gradation : Any coarse aggregate contained in the material shall pass the one and one-half (1-1/2); sieve and not more than thirty-five percent (35%) shall be retained in the Number 10 sieve. The plasticity index (P.I.) shall not exceed 12, nor shall the liquid limit exceed 30.
- iii) The composite selected sand-clay material passing the Number 10 sieve shall conform to the following minimum and maximum gradation limits:

| Sieve                 | Percent Passing by<br>Weight |
|-----------------------|------------------------------|
| Number 40             | 40–85                        |
| Number 60             | 30–70                        |
| Number 270            | 8–30                         |
| Silt (.05 to .005 mm) | 03–15                        |

|                           |       |
|---------------------------|-------|
| Clay (Passing .005<br>mm) | 3--15 |
|---------------------------|-------|

- iv) Backfill: All other backfill shall consist of excavated material removed from the trench.

## 5) CONSTRUCTION

### a) Earthwork

#### i) Site Preparation:

- (1) Topsoil shall be stripped and stockpiled in accordance with Technical Specifications - Restoration of Roads, Driveways, Fences, Lawns, and other Grassed Areas.
- (2) All vegetation such as brush, heavy sod, heavy growth of grass, decayed vegetative matter, rubbish and any other unsuitable material within the area of trenching shall be stripped or otherwise removed before the trenching is started, and in no case shall such objectionable material be allowed in the trench.
- (3) Stripping operation shall be to a depth of not less than 6 inches in all cases.

- b) Asphalt or Concrete Removal: Before trenching operations begin, the existing asphalt or concrete pavement shall be scored or cut to a proper depth to give a straight vertical edge when removed. The asphalt or concrete shall be disposed of offsite by the Contractor. While removing the asphalt or concrete in the trench line, never shall the adjacent asphalt be raised or pulled from its base.

#### c) Trenching:

- i) The Contractor shall determine all requirements for trench dimensions, alignment, and grades. The trench shall be excavated in conformance with all federal, state and local regulations for the protection of the workmen. Shoring, sheeting and/or a moveable form shall be used as required to provide earth stability during the laying operations.
- ii) The final excavation of the trench for the pipe installation shall be as indicated on the Plans. Minor variations in horizontal (within the permanent easement) or vertical alignment during construction shall be made during construction (with the Engineer's approval) to facilitate ease of installation and operation

(due to potential conflicts; i.e., utility conflict) at no additional cost to the Owner except for additional piping, if any. The trench from the top of the pipe down to the bottom of the bedding shall be of a consistent width as indicated on the plans. Should the excavated width of the trench be larger than the design width, the Engineer may direct that a higher type or class of bedding be used; or other adjustments be made to increase the load carrying capacity of the pipe.

- iii) The Contractor shall not excavate more trench in advance of pipe laying than is necessary to perform the work efficiently. No more than 100 feet of open trench shall be allowed unless approved by the Engineer.
- iv) Excavated material shall be placed in a manner that will not obstruct sidewalks, driveways, or other structures. Excavated material shall not be placed so as to surcharge the walls and jeopardize trench stability.

d) Disposal:

- i) The Contractor shall satisfactorily dispose of all excess earth from excavations either in approved (by the Engineer) areas within the construction limits or away from the project in disposal sites obtained by the Contractor.
- ii) The Contractor will be permitted to mound excess earth over the trench to a maximum depth of 12 inches above the original ground surface or finished grade where the trench is located in unimproved property. Wasting of excess excavated material will not be permitted within any road ROW. All material within the construction limits shall be placed so that natural drainage is maintained and the surface shall be graded to a smooth and uniform appearance. The disposal of waste and excess excavating materials, including hauling, handling, grading, and surfacing shall be subsidiary obligation of the contractor and no separate payment will be made. Therefore, the cost of such work shall be included in the Contract Unit Price for installation of water pipe.

e) Dewatering

- i) The site shall be kept free of surface water at all times. The Contractor shall install drainage ditches and dikes and shall perform all pumping and other work necessary to divert or remove rainfall and other accumulations of surface water from the excavations. The diversion and removal of surface water performed in a manner that will prevent the accumulation of water behind temporary structures or at any other locations within the construction area where it may be detrimental. The Contractor shall provide, install, and operate sufficient trenches, sumps, pumps, hoses, piping, well points, deep

wells, etc., necessary to depress and maintain the ground water level at least one foot below the base of the excavation during all stages of construction operations. The ground water table shall be lowered in advance of excavation and maintained a minimum of one foot below the lowest excavation subgrade made until the structure has sufficient strength and weight to withstand horizontal and vertical soil and water pressures.

- ii) Where groundwater is encountered, the Contractor shall make the effort necessary to secure a dry trench bottom before laying pipe. In sandy and in other suitable type soils, dewatering shall be done by well pointing. If, in the opinion of the Engineer, the Contractor has failed to obtain an absolutely dry trench bottom by insufficient use of all known methods of trench dewatering, the Engineer may order the Contractor to excavate below grade and place not less than 6 inches of graded crushed stone fill material over the trench bottom to form trench drains to suitably located sumps and to remove the water by bailing or pumping. The graded crushed stone fill material shall be placed at the Contractor's own expense and shall be of such depth that there shall be not water in bell holes at the time of coupling pipe. All costs of equipment, labor, and materials required for dewatering shall be included in the bid price.

f) Bedding

- i) The Contractor shall satisfactorily shape the trench area (to specified line, grade and cross section) to receive bedding material. The bottom of the trench shall be undisturbed soil. Should the Contractor over excavate the trench without direction from the Engineer, the trench shall be brought up to grade with select backfill and compacted to at least 90% of maximum laboratory density as measured by AASHTO T 99. Such additional work and materials for over excavation without direction of the Engineer shall be at the expense of the Contractor.
- ii) Holes for the bells shall be provided at each joint in the subgrade or in the granular fill bedding material as required. The holes shall be no larger than necessary for joint assembly and assurance that the pipe barrel will lie flat on the material. The Contractor shall install the proper bedding for the respective type of pipe and depth of installation as shown in the details and schedules on the plans. When depths vary in a particular manhole run, the Contractor shall change bedding systems in accordance with the depth installation requirements.
- iii) Stabilization Materials: When the subgrade is found to be unstable or to include ashes, refuse, organic material, or other unsuitable material, the Engineer may direct that the subgrade be over excavated to remove such material. The depths of over excavation shall be as directed by the Engineer. Stabilization material shall be placed into the over excavated area of the

trench and shall be paid for in accordance with these specifications. Stabilization shall be compacted to at least 90% of maximum laboratory density in six inch lifts.

iv) Bedding Materials

(1) As detailed in the plans, bedding material shall be placed to the specified depth below the pipe and tamped to a minimum of 90% of maximum laboratory density as determined in accordance with AASHTO T 99. Following placement of pipe, additional bedding material shall be placed and consolidated under the haunches of the pipe. Special tools shall be required to work the material into place and leave no voids beneath the pipe. The bedding material shall be tamped along the spring line (or along the top of the bedding material as indicated) of the pipe to sufficiently compact the material insofar as practical.

(2) The Engineer may direct additional moisture be added to the bedding material to aid in the compaction effort. Mechanical tampers may be employed to aid the process. depending on the particular bedding required, additional bedding shall be added and tamped to a minimum of 90% of maximum laboratory density, with AASHTO T-99.

v) Select Backfill: Select backfill shall be placed in 6 inch lifts and tamped to a minimum laboratory density with AASHTO T-99. Overall depth of the select backfill shall be as directed by the Engineer.

vi) Normal Condition Bedding: Under normal conditions the trench bottom shall be undisturbed earth shaped to the specified line, grad, and cross section with proper bell holes at each joint to insure that pipe barrel lies flat on trench bottom. The bedding material will be selected native materials excavated from the trench and placed in two lifts. The first lift being placed up to the spring line of the pipe and extending out to the trench walls and hand tamped to a minimum of 90% of maximum laboratory density. Special care shall be used in placing and tamping bedding to insure no voids under the haunches of the pipe. The second lift shall extend to approximately 6" above pipe (Material permitting) and hand tamped to 90% density.

g) Backfilling: Upon completion of placement of select material the excavated materials shall be immediately placed back into the trench. Specific requirements are:

i) Backfill requirements for road crossings, parking lots, driveways, and sidewalks shall be in accordance with Technical Specifications - RESTORATION of ROADS, DRIVEWAYS, FENCES, LAWNS and OTHER GRASSED AREAS.

- ii) Backfill requirements for unimproved areas (pastures, wooded areas) shall consist of placement and shaping of the soil in such a manner as to allow maximum natural consolidation. No compaction of the general backfill in the unimproved areas will be required, except that caused by conventional shaping equipment.
- iii) No debris shall be used as backfill which has a volume in excess of one-half of one cubic foot or weight excess of 75 pounds.
- h) Sheeting Removal: Wooden sheeting or other thick sheeting or shoring members which have been driven or otherwise placed along the trench walls to an elevation below the spring line of the pipe shall be cut off at the spring line or higher and left in place.
- i) Grading and Grassing: Final grading and grassing shall be in accordance with Technical Specifications, "RESTORATION of ROADS, DRIVEWAYS, FENCES, LAWNS, and OTHER GRASSED AREAS."
- j) Pipe Handling and Storage: Pipe shall be handled, staked, and stored in accordance with manufacturer's printed literature. The Contractor shall provide security as required to prevent damage by vandals. PVC pipe shall be shaded from sunlight for extended lengths of time. Pipe damaged during storage and handling shall be rejected.
- k) Pipe Laying
  - i) Each pipe shall be laid true to line and grade and in such manner as to form a close concentric joint with the adjoining pipe and to prevent sudden offsets of the flow line. As the work progresses, the interior of the water shall be cleared of all dirt and superfluous materials of every description. Where cleaning after laying is difficult because of small pipe size, a suitable swab or drag shall be kept in the pipe and pulled forward past each joint immediately after the jointing has been completed. Trenches shall be kept free of water and pipe shall not be laid when the condition of the trench or the weather is unsuitable for such work. At times when work is not in progress, open ends of pipe and fittings shall be securely and satisfactorily closed so that no trench water earth or other substance will enter the pipe or fittings.
  - ii) The water main shall maintain a minimum of 30 inches of cover at all times.
  - iii) Pipe laying shall be performed in such a manner that no foreign material enters the pipe. The Engineer may require that before lowering pipe, heavy canvas bags be placed over each end, and left in place until joints are ready

to be made. If water is in the trench, the seals shall remain in place until the trench is pumped completely dry. If conditions are unsuitable, no pipe shall be laid until satisfactory laying conditions are obtained in accordance with the above specified requirements.

- l) Pipe Jointing: Piping shall be jointed in accordance with the manufacturer's printed recommendations. Gaskets shall be firmly set within the bells and grooves as required. The manufacturer's recommended lubricant or an approved equal shall be applied for slip type joints.
  - i) Ductile Iron Pipe Joint Construction: The installation and jointing of ductile iron pipe shall generally conform to the applicable provisions of AWWA Standard Specifications C-600 for pipe laying.
  - ii) Where mechanical joint pipe is used, the surfaces which come in contact with the gasket shall be thoroughly brushed with a wire brush just prior to assembly. The gasket should be brushed with soapy water prior to installation to remove loose dirt and to lubricate gasket as it is forced into its retaining space.
  - iii) When tightening bolts, it is essential that the gland be brought up toward the pipe flange evenly. The bolts should be partially tightened; the bottom bolt first, then the top; next the bolts on either side; and last, the remaining bolts. Overstressing of bolts to compensate for poor installation will not be permitted. Bolt torque shall be in accordance with manufacturer's specifications.
  - iv) All joints of whatever type shall be completely water tight after being subjected to the required tests.
- m) Borings: Borings shall be accomplished in accordance with Mississippi State Highway Department Standards. The contractor shall provide all necessary sheeting, bracing, cribbing, supports and appurtenances to insure the proper line and grade throughout the entire length of the crossing.
  - i) Casing Pipe: Casing Pipe shall be installed as indicated on the Contract Drawings. Joints shall be completely welded to provide structural integrity and shall be watertight.
  - ii) Carrier Pipe: Carrier pipe may be any of the allowed options of piping. However, the piping and joints shall be capable of withstanding the stress exerted by pushing the pipe within the casing.
  - iii) Carrier Pipe Supports: Supports for the carrier pipe shall be as recommended by the manufacturer for such installation. Supports shall be spaced to



adequately support the piping under all conditions.

- iv) Casing Seal: The annulus between the casing and carrier pipe shall be sealed at each end by installing WMSON Type U end seals, as manufactured by T.D. Williamson, Inc. Tulsa, Oklahoma, or equal, in accordance with the instructions of the manufacturer of the seals.

- 6) **SEPARATION of WATER and SEWER MAINS:** The water and sewer specifications should state that the water line be constructed no less than 10 feet horizontally and 18" vertically with water line over sewer line. If those conditions cannot be met then they will be decided on a case by case basis.

## 7) **TESTING**

### a) Ductile Iron Pipe

- i) Field Inspection: The Engineer shall perform visual inspection of the material prior to placement by the Contractor. The Engineer may make non-destructive tests to determine the soundness of the pipe. The Contractor shall assist the Engineer in handling and moving the pipe as required.
- ii) Material Test: Material test shall be conducted during the manufacturing process and the results shall be included as part of the submittals. No other material test shall be required.

- b) Steel Casing Pipe Material test shall be included as part of the submittal. No other material test shall be required.

### c) Compaction Tests

- i) Compaction tests shall be performed in accordance with AASHTO T 191 or ASTM D 2922. Maximum compaction shall be determined in accordance with AASHTO T 99.
- ii) Compaction tests for water pipe related work shall not be less than as follows:

| NUMBER of COMPACTION TESTS<br>AASHTO T-99, AASHTO T-191, or ASTM D<br>2922 |   |                  |
|----------------------------------------------------------------------------|---|------------------|
| Stabilization Material                                                     | 1 | One per 100 C.Y. |
| Bedding material                                                           | 2 | One per 600 L.F. |
| Tamped Backfill                                                            | 2 | One per 600 L.F. |

d) Hydrostatic Testing

- i) After the pipe has been laid, all newly laid pipe or any valved section thereof shall be subjected to a hydrostatic pressure of at least 1.5 times the working pressure at the point of testing and not less than 1.25 times the working pressure along the test section, for a minimum of 2 hours.
- ii) And all tests shall be in accordance with AWWA Standard C600, Section 4.
- iii) Allowable leakage shall be no more than that determined by the following formula:

$$L = \frac{SD \sqrt{P}}{133,200}$$

- iv) In which L is the allowable leakage in gallons per hour; S is the length of pipe tested in feet; D is the nominal diameter of the pipe, in inches; and P is the average test pressure during the leakage test in pounds per square inch.
- v) These tests are to be made at the Contractor's expense and he is to provide all necessary fittings, equipment, appliances and any other necessary items to conduct the tests in a manner satisfactory to the ENGINEER. All costs incidental to conducting these tests are to be included in the prices bid for the various items of construction as no separate or extra compensation is to be allowed therefore. Record of testing is to be furnished to the OWNER.

8) CLEANING and STERILIZING

- a) Before each section of work is placed in service, it shall be thoroughly flushed to remove any dirt or other foreign material from inside the lines; and the inside of the lines shall be sterilized by pumping into and through them a solution of chlorine of 50mg/l for 24 hours in such manner as to meet the requirements of the State Board of Health.
- b) At least two (2) samples of chlorine free water, taken from each section shall be submitted to the State Board of Health for examination to determine if the

system is free from organisms of the Coli-Aerogenes group. If such samples are not negative from organisms of the Coli-Aerogenes group, the system shall be disinfected and re-disinfected in a manner meeting the requirements of the State Board of Health, until the system is freed of contamination.

- c) All water mains will be flushed, chlorinated and re-chlorinated until two (2) consecutive negative water samples are obtained by the Local Health Department. The samples shall be collected by the Certified Operator of the system or the Professional Engineer of the project.
- d) The CONTRACTOR shall be responsible for the conduct of all of the above defined activities, and any and all costs incident thereto shall be included in the prices bid for the various items of construction as no separate or extra compensation is to be allowed therefore.

## **FIRE HYDRANT**

### **1.0 General**

Fire hydrants shall comply in all respects with AWWA Standard C-502, latest revision, and shall be M & H or approved equal. Fire hydrants shall be of the compression type with the main valve opening against the pressure and closing with the pressure. The main valve opening shall be 4-1/2", 5-1/4", or 6-1/4" in diameter. Fire hydrant shall be of a dry barrel, dry top design. The main valve on the hydrant shall remain closed should the hydrant nozzle section be broken off by a traffic accident. The nozzle section shall consist of two (2) hose nozzles and one (1) pumper nozzle or other, as specified.

### **2.0 Rating**

Fire hydrants shall be rated at 150 psi water working pressure, tested at 300 pounds hydrostatic for structural soundness in the following manner: 300 pounds hydrostatic test supplied from the inlet side, first with the main valve closed for the testing of the valve seat; second, with the main valve open for testing of the drain valves and the hydrant barrel. Testing is to be completed in accordance with AWWA C-502.

### **3.0 End Configurations**

Hydrants shall be connected to the main by a 4", 6", or 8" mechanical joint, flange shoe, A.C., or hub shoe. Mechanical joint shoes, A.C., and hub shoes shall be fitted with strapping lugs.

### **4.0 Design**

- 4.1 The main valve seat of the hydrant shall be made of rubber and be supported by a one-piece bronze top plate and drain valve mechanism and bottom plate. The bottom stem threads of the main valve rod shall be fitted with a cast iron cap nut (epoxy coated, optional) suitable for sealing the threads from the water. Drain valves shall be faced with rubber.
- 4.2 Changes in size or shape of the waterway shall be accomplished by means of easy curves. Exclusive of the main valve opening, the net area of the waterway of the barrel and the foot piece at the smallest part shall not be less than one hundred twenty percent (120%) of that of the net opening of the main valve.
- 4.3 Hose and steamer nozzles shall be threaded and screwed into the nozzle section and then pinned to prevent turning.

- 4.4 The hydrant shall be so designed that when it is in place, no excavation will be required to remove the main valve and moveable parts of the drain valve. Further, the hydrants shall be of the type that can be extended without excavating. Hydrants shall be so designed that, in the event of accident or breaking of the hydrant above or near grade level, the main valve will remain closed. The main valve rod shall be made in two parts and fitted with breakable feature at the ground line flange.
- 4.5 The ground line connection between nozzle section and the barrel shall incorporate the use of eight (8) breakable bolts. This connection shall be so designed that the nozzle section can be rotated in increments of forty-five (45) degrees. The ground line connection between the barrel and nozzle section shall be gasketed to provide a seal.
- 4.6 The operating threads of the hydrant shall be so designed as to avoid the working of any iron or steel parts against either iron or steel. The operating stem and operating nut threads shall be square or acme type.
- 4.7 The operating thread shall be grease lubricated at the factory. Access shall be provided to field lubricate the operating mechanism.
- 4.8 The operating thread shall be sealed from water at all items when the valve is either in the opened or closed position. The operating rod shall be bronze sheathed where it passes through the double "O" ring seal plate.
- 4.9 The bonnet shall be weather proof.
- 4.10 The operating nut shall be of bronze and a self-lubricating, anti-friction thrust bearing shall be provided to reduce operating torque.
- 4.11 Hydrants shall be of the dry type and hydrant shoe shall have two positive acting non-corrodible drain valves that shall drain the hydrant completely by opening when the main valve is closed and close tightly in accordance with AWWA C-500 requirements when the valve is open. The main valve assembly shall be seated in the hydrant (with a bronze-to-bronze interface as an option) to facilitate removal of the main valve should maintenance be required. The nozzle section shall consist of two 2" hose nozzles to the specified thread designation (NST or other, as specified) and one pumper nozzle 4-1/2" in diameter to the specified thread designation (NST or other, as specified) or other combination of nozzle outlets including independent hose gate valves as specified.
- 4.12 Two "O" ring seals shall be utilized where the main hydrant rod passes through the seal plate.

- 4.13 Hydrant standpipe shall be ductile or cast iron and single piece for all bury depths.
- 4.14 All like parts of hydrants of the same size and model produced by the same manufacturer shall be interchangeable.
- 4.15 Hydrant shall open by turning to the left.
- 4.16 Threads or hose and streamer nozzles shall be national standard unless otherwise specified.
- 4.17 Auxiliary shut-off (isolation) gate valves, when required, shall be of the same manufacture as the hydrant.
- 4.18 The inside of all hydrants shall be coated in accordance with AWWA standards and federal specification TT-C-494A or equal except for bronze and machined surfaces. Exterior of hydrant shall be painted fire hydrant yellow (or as specified). (The wetted surface of the hydrant shoe shall be epoxy coated to prevent corrosion of the waterway, optional.)

## **5.0 Markings**

Hydrant shall be marked with the name of the manufacturer, size of valve opening, and the year of manufacture, all in accordance with AWWA C-502.

## MANHOLES

### **1.0 GENERAL:**

This item shall consist of furnishing all materials, labor, supervision, tools, equipment and incidentals for the construction of standard manholes, in accordance with the Contract Drawings and Specifications. Included in the work are structural excavation, backfill, and disposal of excess material.

### **2.0 APPLICABLE DOCUMENTS:**

The following publications form a part of this specification and where referred to by basic designation only, are applicable to the extent indicated. The latest editions of the publications referenced shall apply to the work.

#### American Society for Testing and Materials (ASTM)

|           |                                                                                                |
|-----------|------------------------------------------------------------------------------------------------|
| A 48/A48M | Standard Specification for Gray Iron Casting                                                   |
| C 39/C39M | Standard Specification of Test for Compressive Strength of Cylindrical Concrete Specimens      |
| C 443     | Standard Specification for Joints for Circular Concrete Pipe and Manholes Using Rubber Gaskets |
| C 478     | Standard Specification for Precast Reinforced Concrete Manhole Sections                        |
| C 497     | Standard Test Methods for Concrete Pipe, Manhole Sections, or Tile                             |
| C 2922    | Density of Soil and Soil Aggregate in Place by the Nuclear Method (Shallow Depths)             |

#### American Association of State Highway and Transportation Officials (AASHTO):

M-198 - Standard Specifications for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.

T-99 - Standard Method of Test for the Moisture-Density Relations of Soils Using a (2.5kg) Rammer and (305 mm) Drop.

T-191 - Standard Method of Test for Density of Soil In-Place by the Sand-Cone Method.

### 3.0 SUBMITTALS

The following tests or data shall be submitted to the Engineer from the Contractor for approval prior to incorporation into the work:

**3.1 Certificates:** The Contractor shall furnish certificates from supplier certifying the products conform to the required specifications included herein for the following items:

- 3.1.1. Flexible Plastic Gaskets
- 3.1.2. Precast Manhole Bases
- 3.1.3. Precast Manhole Riser Sections
- 3.1.4. Manhole Steps
- 3.1.5. Manhole Frames and Covers (ASTM A 48)
- 3.1.6. Epoxy Grout

**3.2 Catalogue Cuts or Brochures:** The Contractor shall also submit catalogue cuts or product brochures providing descriptive data, recommended application and use, and installation procedure for the following items:

- 3.2.1. Manhole Frames and Covers
- 3.2.2. Epoxy Grouts
- 3.2.3. Manhole Steps

### 4.0 MATERIALS

**4.1 Manhole Riser Sections:** Manhole riser sections shall be precast reinforced sections conforming to ASTM C 478 and as shown on the Contract Drawings.

**4.2 Joints:** Joints for precast riser sections shall be concrete pipe type flexible plastic gaskets. Joint material shall be performed conforming the requirements of AASHTO M-198. Installation shall be in accordance with manufacturer's recommendations.

**4.3 Concrete Manhole Bases:** Concrete manhole bases shall be precast or cast-in-place as follows:

**4.3.1 Cast-In-Place Manhole Bases and Box Type Bases (if used):** Concrete and reinforcing steel shall conform to the requirements of Technical Specifications - CONCRETE.

**4.3.2 Precast Concrete Bases:** Precast concrete bases shall conform to the requirements of ASTM 478 with reinforcing steel (size and spacing as indicated on the plans).

**4.4 Manhole Steps:** Manhole steps shall be plastic coated corrosion resistant and shall be installed as shown on the Contract Drawings.



**4.5 Cement Grout:** Cement grout shall be high strength, non-metallic conforming to Corps of Engineers CRD-C-588. The grout shall be V-3 by W. R. Meadows, Inc., Masterflow 713 by Master Builders or equal.

**4.6 Manhole Frame and Covers:** Manhole frame and covers shall conform to ASTM A 48 as well as to the following requirements. All frame and covers shall be new when installed for the project.

**4.6.1 Standard Manhole Cover and Frame** - shall be as manufactured by Dews Foundry, Jackson Standard, Model DF-25 (7) or Vulcan Foundry, Model V-1115, 420 Pounds, marked "SEWER", domestic origin, or equal.

**4.6.2 Water Tight Manhole Cover and Frame** - shall be as manufactured by Vulcan Foundry, Model V2357, or Dews Foundry, Model DF-25(7) W.T., 410 pounds with neoprene gasket, four 5/8-inch stainless steel bolts recessed into cover. Cover labeled "SEWER", domestic origin, or approved equal.

**4.7 Epoxy Grout:** Epoxy Grout shall be high strength non-metallic, non-shrinking. The grout shall be as by EMBECO, Inc., SEAL-COAT or approved equal.

**4.8 Drop Manholes:** Concrete for drop manholes shall conform to the requirements of Technical Specifications - CONCRETE. Pipe and fittings shall be the same material and size as the incoming gravity sewer.

**4.9 Flexible Connection:** At all sewer connections to manholes, provide gasket flexible watertight connection that allows for differential settlement of the pipe and manhole wall.

**4.10 All manholes:** All manholes shall be lined inside with a sixteen (16) mil dry film thickness of an acceptable coal tar epoxy system.

## **5.0 CONSTRUCTION**

### **5.1 Earthwork**

**5.1.1 General:** Excavation shall be to the extent required to allow proper construction of the manhole. Shoring and sheeting shall be utilized where required by Federal, State and local codes and regulations for safe working conditions. In addition, shoring and sheeting shall be required to protect the integrity of adjacent structures or prevent adverse effects on surrounding areas. Dewatering shall be employed to the extent required to allow dry working conditions.

**5.1.2 General Excavation:** The Contractor shall "lay back" or employ shoring and sheeting as required to assure stability of the excavation. Material shall be stockpiled so as not to surcharge adjoining pipe trenches. Topsoil shall be separated so as to allow

the maximum reuse in grassing operations.

**5.1.3 Structural Excavation:** The area immediately beneath the manhole bases shall be graded and compacted. Compaction shall be to 96% of maximum laboratory density as determined by AASHTO T 99. Should unsuitable material be encountered, the Engineer may direct that the area be over excavated and filled with stabilization material. Specification for stabilization material and payment for such shall be in accordance with Technical Specifications.

**5.1.4 Backfilling:** Backfill material shall consist of select backfill in accordance with Technical Specifications. Backfilling shall be uniformly placed around the structure in 10-inch layers and be compacted to 90% of maximum density to full depth in unimproved areas. Backfill in paved areas and within five feet to any edge of pavement shall be compacted to 95% of maximum laboratory density in 8-inch layers to the subgrade line. Refer to Technical Specifications.

**5.1.5 Salvage:** Manhole frames and covers removed during excavation shall remain the property of the Owner and shall be delivered to a location designated by the Owner. All other items removed shall be disposed of by the CONTRACTOR at his expense.

**5.2 Riser Installation:** Precast concrete riser sections shall be installed plumb and in accordance with the details shown on the Contract Drawings. Joints shall be installed in accordance with manufacturer's recommendations.

The manhole invert channels shall be formed in the bases, smooth and semi-circular in shape conforming to the inside of the adjacent sewer section. Changes in the direction of flow shall be made with a smooth curve of as large a radius as the size of the manhole will permit. Changes in size and grade of the channels shall be formed directly in the concrete of the manhole base. The joint between the base and riser section shall be sealed with epoxy grout. Clean pea gravel shall be used as the epoxy grout filler.

Standard manhole cut-outs and lifting holes shall be sealed with epoxy grout.

**5.3 Cast-In-Place Concrete:** Bases, flat tops, and drop manhole risers shall be constructed in accordance with Technical specifications – CONCRETE.

**5.4 Manhole Steps:** Manhole steps shall be installed during the manufacturing of the riser or cone sections. Risers and cones shall be joined so the steps are vertically aligned.

**5.5 Manhole Frame and Covers:** Manhole frame and covers shall be set and grouted in place with cement grout. For manholes located in roads or streets, the manhole cover shall be flush with pavement or surface course.

## 6.0 TESTING

**6.1 General:** The Contractor shall conduct (and bear the cost of) all testing (Laboratory Approved by the Owner) as directed by the Engineer and furnish results of such tests prior to incorporating the material into the work. All testing is subsidiary to Manhole Payment Items.

**6.1.1 Cast-In-Place Concrete Items:** The concrete quality testing for manhole bases, drop manholes, and valve boxes shall be tested in accordance with Technical specifications - CONCRETE.

**6.1.2 Manhole Risers and Precast Concrete Bases:** Manhole risers and precast concrete bases shall be tested for concrete compressive strength. If the place of manufacture is local and reasonably available to the Engineer, Paragraph (a) shall be followed for testing requirements. Should the place of manufacture not be available, Paragraph (b) shall apply.

The contractor shall prepare (in the presence of the Engineer) standard rodded concrete cylinder or cylinders compacted and cured in a similar manner to the manhole sections. Concrete for such cylinders shall be typical fresh concrete mix drawn from the actual casting operation of a riser or base. Cylinders shall be tested in accordance with ASTM C 39. The average compressive strength shall be equal to or greater than the specified design strength (4000 psi). Not more than 10% of the cylinders shall fall below the design strength (4000 psi). In no case shall any cylinder tested fall below 3200 psi. Number of such cylinder tests shall be as follows:

6.1.2.1 One set of cylinders for each day's run castings or

6.1.2.2 One set of cylinders for each 200 linear feet of riser sections manufactured.

6.1.2.3 One set of cylinders per 20 bases or flat tops manufactured.

The Engineer may require additional tests should compressive test results fail.

**6.1.3 Earthwork Test:** Maximum laboratory density shall be measured in accordance with AASHTO T-99. Field densities shall be determined in accordance with AASHTO T-191 or ASTM D 2992. Standard proctors and field densities shall be performed in accordance with the following schedule.

Standard proctor tests shall be required for earthwork associated with manhole construction. At least two (2) field density tests shall be conducted for earth work associated with each manhole construction.

**6.1.4      Inspection for Watertightness:**    All manholes shall be inspected for watertightness prior to placing into service.

## CONCRETE

### 1. GENERAL

A. This item shall consist of furnishing all materials, labor, supervision, tools, equipment and incidentals and performing all forms of work; furnishing and placing reinforcement, inserts and anchors; mixing, placing, curbing, and furnishing of portland cement concrete.

B. The work includes, but is not necessarily limited to manholes, pumping stations, lift stations and minor concrete work.

### 2. APPLICABLE DOCUMENTS

The following publications form a part of this Specification and where referred to by basic designation only, are applicable to the extent indicated. The latest editions of the publication referenced shall apply to the work.

A. American Society for Testing and Materials (ASTM):

A 615 Billet Steel for Concrete Reinforcement

C 31 Making and Curing Concrete Compressive and  
Flexural Strength Test Specimens in the Field

C 33 Concrete Aggregates

C-39 Compressive Strength of Molded Concrete Cylinders

C 143 Slump of Portland Cement Concrete

C 150 Portland Cement

B. Mississippi Department of Transportation (MDOT):

Standard Specifications for Road and Bridge Construction Current Edition.

### 3. SUBMITTALS:

The following data shall be submitted to the Engineer for review prior to incorporation into the work:

A. Letter from the manufacturer certifying the concrete mix conforms to the requirements for Class B concrete as defined in Section 804 of the MDOT Standard Specifications for Road and Bridge Construction.

B. Letter of certificate from the manufacturer certifying that the reinforcing steel conforms to the herein specified requirements.

#### 4. MATERIALS:

A. General: The concrete shall be ready-mix concrete manufactured by a plant for delivery to the site of the work in a plastic state. The Contractor may batch the concrete at the work site by use of portable mixers providing the following requirements are met:

1. Facilities shall be provided to properly weight, proportion and control the components of the concrete mix.

2. The mixer(s) shall be of such capacity so as to allow the complete placement of the plastic concrete mix prior to the initial set of any portion of the particular concrete pour.

B. Concrete Mix: The concrete materials and mix design shall conform to the requirements for Class B Concrete Section 804, MDOT Standard Specifications for Road and Bridge Construction. The compressive strength of the concrete shall be a minimum of 3000 psi at 28 days, or earlier. Type I Portland Cement shall be used in the mix, except where otherwise specified or permitted. Prior to producing any concrete for cast-in-place construction on the project, the Contractor shall submit to the Engineer the proposed mix design and shall obtain Engineer's approval of the mix design.

C. Reinforcing Steel - shall be new stock, deformed bars conforming to ASTM A 615, Grade 40 or Grade 60.

D. Curing Material - shall consist of wetted burlap, wetted cotton mats, plastic sheeting, or an approved liquid membrane material which will satisfactorily keep the new concrete in a moist condition for at least seven (7) days.

#### 5. CONSTRUCTION:

A. Weather Limitations: Concrete shall be placed when the atmospheric temperature is a minimum of thirty-five (35) degrees F. and rising. Newly placed concrete shall be protected from cold temperatures for at least four (4) days at a temperature of not less than forty (40) degrees F.

B. Forms: Forms shall be securely anchored in place and properly aligned. Wood forms shall be oiled prior to placement of fresh concrete mix.

C. Reinforcement: Reinforcing bars shall be securely mounted by the use of chairs or other approved methods so as to not become displaced during placement of concrete mix. The positioning of reinforcing by working the bars into the newly placed concrete mix shall not be allowed.

D. Placement: The plastic concrete mix shall be worked (and vibrated if required) into the formwork. The mix shall be consolidated so as to remove all voids and finished to form a true and level surface.

E. Curing: The hardened concrete shall be kept moist by the use of curing materials for a minimum of seven (7) days.

F. Slump Requirements: The following slump requirement shall apply:  
Class B Concrete 2-4 Inches

G. Chamfered Corners: All exposed corners shall be chamfered one (1) inch or as indicated.

H. Finish:

1. All surfaces shall be "floated" to provide a uniform and level surface. Defects (honeycombs, ties, etc.) shall be repaired. No rubbing shall be required.

2. Sidewalks, driveways and other surfaces subject to pedestrian traffic shall be floated as noted in paragraph 1 above and shall receive a "broom" finish.

## **6. TESTING**

The following test shall be required:

A. Slump: The Engineer shall test the concrete mix for conformance to the slump requirements as required. Test shall be in accordance with ASTM C 143.

B. Compressive Strength: The Engineer shall sample the concrete mix and prepare test cylinders for conformance to the compressive strength requirements. The Contractor shall transport the cylinders to the testing laboratory (employed by the Contractor) and have the cylinders tested in accordance with ASTM C 31 and C 39. The results of such test shall be forwarded to the Engineer. Test shall be performed at the following schedule.

One test per 15 cubic yards or major fraction thereof. A minimum of one test for each day of mixing shall be performed.

## **RESTORATION OF ROADS, DRIVEWAYS, FENCES**

### **LAWNS AND OTHER GRASSED AREAS**

#### **1.0 GENERAL**

The work under this item of work shall consist of furnishing all necessary materials, labor, supervision, tools, equipment and incidentals for the restoration of roads, driveways, fences, lawns and other grassed areas so as to provide satisfactory repair to all damage caused by general construction work. It is the intent of these Specifications to restore all such features to the general conditions that existed prior to construction activity insofar as practical. It is not the intention of this Specification that trees, which must be cut and removed, be restored. The Contractor is expected to be familiar with the overall area and be satisfied as to the materials required and level of effort needed to accomplish such restoration in accordance with this Specification.

#### **2.0 APPLICABLE PUBLICATIONS**

The following publications form a part of this specification and where referred to by basic designation only, are applicable to the extent indicated. The latest editions of the publications referenced shall apply to the work:

American Association of State Highway and Transportation  
Officials (AASHTO).

T 99 The Moisture Density Relations of Soils Using a 5.5lb. (2.5 kg) Rammer and a  
12-inch (305 mm) Drop

T 167 Compressive Strength of Bituminous Mixture

T 191 Density of Soil In-Place by the Sand-Cone Method

T 230 Determining Degree of Pavement Compaction of  
Bituminous Aggregate Mixtures

American Society for Testing and Materials (ASTM)

D 2922 Density of Soil and Soil Aggregate in Place by the  
Nuclear Method (shallow depths)

Mississippi State Highway Department (MSHD)

Standard Specifications for Road and Bridge Construction, 1990 Edition  
Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)



### 3.0 SUBMITTALS

3.1 Mix Designs: Design mix will be provided by Contractor and approved by Engineer prior to production of asphalt.

### 4.0 MATERIALS

4.1 Subbase and Base Courses: Subbase and base courses under paved areas shall be as specified in MSHD Specification Section 300.

4.2 Prime Coat: Prime coat shall consist of Grade MC-30 or Grade MS-70 in accordance with the applicable requirements of MDOT Specification Section 408.

4.3 Bituminous Pavement: Bituminous Pavement for roadway and parking areas, wearing and binder courses, shall consist of a mix in accordance with MDOT Specifications Section 403.

Materials shall conform to the following subsection of MDOT Specifications Sections 702 and 703.

Bituminous Materials (AC-20) 702.01  
Aggregate

A. BC-1 Binder Course

B. SC-1 for Surface Course  
Filler 703.14

C. Topsoil: Topsoil shall be in accordance with Technical Specifications - SEEDING AND SODDING.

E. Seeding and Sodding: Seeding and sodding operations shall be in accordance with Technical Specifications - SEEDING AND SODDING.

SEEDING AND SODDING.

### 5.0 CONSTRUCTION

5.1 Maintenance of Traffic: Prior to limiting or restricting traffic on any street or road, the Contractor shall obtain permission from the City of Petal. Through or local traffic shall at all times be accommodated by the use of temporary approaches, crossings or detours (if allowed by the City of Petal). Satisfactory (to the Property Owner) ingress and egress to any public or private property shall be properly maintained. Proper barricades, signs and detour signs shall be provided by the Contractor to adequately

warn motorists of obstructions ahead. Lighted (flashing) barricades shall be used at night.

Flagmen shall be provided to direct traffic around equipment and for one-way movement of traffic around equipment and for one-way movement of vehicles. The Contractor may have to stop construction and restore full traffic during certain rush hours.

The Contractor shall at all times (unless otherwise permitted in writing by the City of Petal) maintain open one lane to traffic during construction operations and restore roadways to two-way traffic during non-construction hours.

## 5.2 Repair of Asphalt/Concrete Streets/Driveways/Parking Lots:

A. Removal and Earthwork: The existing asphalt pavement shall be uniformly saw cut on straight lines and the material shall be removed. Other methods of cutting the existing asphalt surface which will result in a uniform straightedge similar to a sawed cut may be acceptable. Upon completion of the pipe laying, select backfill shall be placed in the excavation in maximum 8-inch lifts and compacted to at least 90% of maximum laboratory density to within one foot of the top subgrade and to 95% of maximum laboratory density in the upper one foot of the subgrade.

Maximum density of typical select backfill material shall be determined in accordance with AASHTO T 191 or ASTM D 2922. Portable mechanical tampers or vibratory compactors shall be used in the trenches. Rollers may be used at street level. Existing base and asphalt surfaces which become undermined during construction shall be removed until firm undisturbed subgrade is reached.

A. Asphaltic Base: Asphaltic base shall be constructed in accordance with MDOT Specification Section 300.

B. Prime Coat: Prime coat shall be applied to exposed existing base material prior to overlay with asphaltic base course in accordance with MDOT Specification Section 408.

C. Tack Coat: Tack coat shall be applied to existing or new asphaltic wearing course and asphaltic base, or concrete which is to require asphalt wearing course.

D. Asphalt Wearing Course: Placement and compaction of the bituminous pavement shall be in accordance with MDOT Specification Section 403.03.

E. Utilities: All utility covers excavated during removal of streets, driveways, parking lots shall be restored to finished grade.

**5.3 Driveways and Sidewalks:** Driveways and sidewalks shall be repaired in similar manner to the original construction. Asphalt drives shall be saw cut where required and repaired in accordance with Paragraph (b) of this Specification. Concrete drives shall be saw cut or removed to the next joint. The minimum thickness for concrete driveway repair is 6 inches and for sidewalks is 4 inches.

Concrete surfaces shall be properly tooled and receive a broom finish. Installation (if required) of new driveway drainage culvert shall be made only at the direction of the Engineer. The Contractor shall take all reasonable precautions to allow for reuse of existing drainage culverts.

**5.4 Repair to Gravel Roads:** Gravel roads shall be backfilled and compacted in accordance with Paragraph (B) of this Specification. The final surface shall consist of 12-inch in-place compacted clay gravel. Compaction shall be to 100% of maximum laboratory density in accordance with AASHTO T-99.

**5.5 Repair to Lawns:**

A. **General:** The Contractor shall exercise extreme care to minimize damage to improved lawns. Trees and shrubs within the limits of work shall be removed only for essential construction requirements. Any shrubs, which are removed or damaged, shall be replaced by satisfactory (to the Property Owner) planting by the contractor. Any grass seed areas, roads, streets, driveways, culverts, fences, water lines, metal boxes or other items (excluding trees unavoidably cut) which are damaged by the Contractor, shall be satisfactorily restored by Contractor. Acceptance of improved lawn repairs shall be based on the firm establishment of live stand of grasses and live growth of any replanted and acceptable shrubs. The Contractor shall water and fertilize such areas until healthy growth of grass (and shrubs, if applicable) is attained.

B. **Grading:** The surface areas shall receive finish grading so the finish topsoil surface (after settlement) will meet the existing contour grade of the area prior to construction. The natural drainage during and after construction shall not be altered so as to cause adverse effects to adjoining properties.

C. **Topsoil:** The Contractor shall strip topsoil and sod and stockpile for later use. Upon completion of trenching over the area. Additional topsoil shall be furnished if required (at no additional cost) to provide a uniform thickness of 3 inches. Lime at a rate of 1 - 1/2 tons per acre and fertilizer (13-13-13) at a rate of 800 pounds per acre shall be applied as needed to further establish grass growth.

D. **Grassing:** Grass seed, sprigs, or sod similar to the existing lawn grasses shall be planted in accordance with the supplier's recommendations. Winter cover grasses such as rye grass shall be applied (in addition to planting the permanent grasses) if seeding, sprigging, or sodding is done at a time of year when the permanent grasses will not actively grow. The type (s) of permanent grasses shall be the same as the grass(es) in

the damaged lawns. If the lawn repairs are accomplished between September 1 and March 1, the Contractor shall continue the restoration work during the next period of March 15 and April 5 and mow the grass and continue the restoration until satisfactory growth of the permanent grass (es) is obtained. Such additional restoration work shall include the 1 - 1/2 tons of lime per acre, application of 13-13-13 fertilizer at a rate of 800 pounds per acre and replanting and watering permanent grass as necessary to obtain satisfactory (to Engineer) growth. No time will be charged against the Contract Time for any such additional restoration work.

E. Sodding:

Sodding shall be in accordance with Technical Specifications: - Seeding and Sodding.

5.6 Erosion Control: During all phases of construction, the Contractor shall adequately protect all work from adverse erosion. Soil shall not be allowed to flow off the limits of work area. The Contractor shall employ the use of ditch checks, matting, temporary grass cover, blankets, or other measures to control erosion. The Contractor shall be responsible to correct damage caused by erosion.

During the construction of this project, all work areas will be strictly monitored. All trench lines will be kept in excellent condition, all streets and drives will receive careful maintenance, keeping potholes and settled areas filled in. Dust control is essential and will also be strictly monitored.

5.7 General Grassing of Unimproved Areas

A. General: The Contractor shall seed and establish grass growth in all disturbed areas in unimproved areas (to include pastures and roadsides). Acceptance of the grass cover shall be based upon the firm establishment of a live stand of grass. The contractor shall water such grass if natural rainfall fails to adequately provide moisture. On slopes and other areas subject to erosion, grassing shall be accomplished as soon as practical (within 48 hours unless weather is prohibiting) after finish grading operations.

B. Grading: The surface area shall receive finish grading so the finish topsoil surface (after settlement) will meet the existing contour grade of the area prior to construction. The natural drainage during and after construction shall not be altered so as to cause adverse effects to adjoining properties.

C. Topsoil: The Contractor shall remove existing topsoil and stockpile for later use. Upon completion of backfilling (to establish contours as before construction), the topsoil shall be uniformly spread back over the area. The Engineer may require additional

topsoil be furnished by the Contractor, if in the opinion of the Engineer, adequate provisions and efforts were not made by the Contractor to stockpile and re-use existing topsoil material.

**D Fertilizer and Agricultural Limestone:** The Contractor shall uniformly apply 800 lbs. per acre of 13-13-13 fertilizer and also apply two (2) tons per acre of agricultural limestone to the area to be seeded. The fertilizer and limestone shall be tilled into the soil to a depth of four (4) inches.

**Seeding:** Seed shall be uniformly sown in accordance with Technical Specification - Seeding and Sodding

**Sodding:** Sod shall be place in accordance with Technical Specification - Seeding and Sodding

**E. Mulch Cover:** Erosion prone areas such as steep slopes and highway shoulders shall receive a layer of loose straw mulch or equivalent at the rate of one and one-half (1-1/2) tons per acre. The mulch cover shall be established by the application of emulsified asphalt or by "crimping" parts of the material into the soil.

**5.8 Miscellaneous Items:** Items such as fences, gates, headwalls, paved ditches, and other items shall be replaced or repaired as required for restoration. Should additional fencing material be required, new post and new wire of similar size, type and gauge shall be provided and installed.

**5.9 General Care:** Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees, which do not have to be removed in the opinion of the Engineer, and which receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.

## **6.0 TESTING**

**6.1 General:** All sampling and testing shall be accomplished by the testing laboratory approved by the Owner and employed by the Contractor to perform such services. Results shall be immediately forwarded to the Engineer by the Contractor.

**6.2 Earthwork:** Earthwork directly involved with road and street repair shall be tested as follows:

**A. Moisture Density Relationship (Standard Proctors):** Two tests of sampled native material shall be required. Tests shall be in accordance with AASHTO T 99.

B. Field Density: A minimum of two and a maximum of four field density tests shall be required. Density tests shall be in accordance with AASHTO T 191 or ASTM D 2922

C. Topsoil: Two pH tests and two organic content tests (wet combustion method) will be required.

## SEEDING AND SODDING

### 1.0 DESCRIPTION

This item consists of furnishing all labor, supervision, materials, tools, incidentals and equipment and performing all work for topsoiling, tilling, fertilizing, seeding, watering, and otherwise establishing, protecting and maintaining seeded and sodded areas as required by the Contract Drawings and these specifications, and including repair, refertilizing and reseeding as required until final inspection and acceptance of the project.

### 2.0 SUBMITTALS

Certificates for fertilizer, limestone, seed.

### 3.0 MATERIAL

**3.1 Topsoil:** Topsoil shall be the surface layer of soil that is stockpiled by the Contractor during stripping and/or excavation on the site. The topsoil shall be free of subsoil, clay, lumps, stones, brush or seed. Topsoil shall have a pH value of not less than 4.5 nor more than 8.0.

**3.2 Lime:** Lime shall be ground limestone containing not less than 80% of total carbonates and shall be ground to such fineness that 80% will pass through a No. 10 mesh sieve and 40% will pass through a No. 40 mesh sieve.

**3.3 Fertilizer:** Fertilizer shall be water soluble commercial carriers of available plant food elements or combinations thereof, as stated herein and shall conform to the applicable state fertilizer laws. They shall be uniform in composition, dry, and free flowing materials in condition for application by suitable equipment. The fertilizer shall be delivered in standard bags or other convenient standard containers, each fully labeled with manufacturer's guaranteed analysis. Any fertilizer shall contain not less than the percentages by weight of the ingredients set out as follows: (1) Nitrogen, 13% (2) Phosphorous P O, 13%, (3) Potash K C, 13%. Invoices for fertilizer will show the kind and have analysis furnished.

**3.4 Seed:** Seeds with a minimum pure live seed content of 90% shall be used. They shall be of the best grade and of known vitality, purity, and germination and shall be delivered in containers bearing seed tags as required by law showing percentages of germination content and purity of seed as well as percentages of weed seed content.

All seeds shall be free of wild onion, Canadian thistle, Johnson grass, crab grass or other seeds of noxious weeds. All seeds shall be furnished in standard containers, or as acceptable to the Engineer. Seed which has become wet, moldy or otherwise damaged in transit or storage will not be acceptable.

### Purity, Germination and Planting Schedule

#### Spring and Summer Seeding (March 1 to September 1)

| <u>Name</u>     | <u>Percent Purity</u> | <u>Percent Germination</u> | <u>Mix (Dry Wt. Lbs.) Per Acre</u> |
|-----------------|-----------------------|----------------------------|------------------------------------|
| Hulled Bermuda  | 95                    | 90                         | 20                                 |
| Pensacola Bahia | 95                    | 90                         | 30                                 |
| TOTAL           |                       |                            | 50                                 |

#### Fall and Winter Seeding (September 1 to March 1)

| <u>Name</u>      | <u>Percent Purity</u> | <u>Percent Germination</u> | <u>Mix (Dry Wt. Lbs.) Per Acre</u> |
|------------------|-----------------------|----------------------------|------------------------------------|
| Unhulled Bermuda | 95                    | 90                         | 20                                 |
| Pensacola Bahia  | 95                    | 90                         | 30                                 |
| Rye              | 95                    | 85                         | 15                                 |
| Crimson Clover   | 95                    | 85                         | 8                                  |
| TOTAL            |                       |                            | 73                                 |

Seeding in Existing Lawns: Grass seeds for existing lawns shall be the same as the existing grass.

3.5 Leguminous Inoculants: Inoculation media containing live nitrogen-fixing bacteria shall be supplied with all legume seed. The inoculants shall be standard, pure culture of nitrogen-fixing bacteria. Each kind of legume will require cultural bacteria that are adapted to that particular kind of seed. The bacteria shall be supplied in convenient containers seed. The bacteria shall be supplied inconvenient containers of a proper size to treat the amount of seed to be planted. The legume seeds shall be treated according to the directions, and before the expiration date for use of the media shown on the container.

3.6 Soil for Repairs: for fills or areas to be repaired, soil shall be topsoil of a least equal quality to that which exists in areas adjacent to the area to be repaired.

3.7 Water: Water shall be free from oil, acid, alkali, salt, and other substances harmful to growth of grass, and shall be from a source accepted prior to use.

3.8 Solid Sod: Bermuda or Carpet Grass and shall be native to the locality of the work and shall, when placed be live, fresh, growing grass with at least two and one-half (2-



1/2) inches of soil adhering firmly to the roots. The sod shall be reasonably free from obnoxious weeds or other grasses, and shall not contain any matter deleterious to its growth; or which might affect its subsistence or hardness when transplanted. The sod shall be in blocks at least 3"x 8", and free from ragged edges.

#### **4.0 INSPECTION AND TESTS**

**4.1 Fertilizer and Limestones:** Duplicate copies of material invoices shall be furnished to the Engineer. Invoices shall show quantities and grade of fertilizer, quantity of limestone, percentages of calcium carbonate and magnesium carbonate, as applicable, and the percentages of limestone that pass the No. 40 and the No. 10 mesh sieves. Samples of each lot of fertilizer and limestone shall be furnished for testing. Upon completion of project a final check of total quantities of fertilizer and limestone used will be made against total area treated, and if minimum rates of application have not been met, additional quantities of these materials to make up minimum application specified shall be distributed.

**4.2 Seed:** Contractor shall furnish to the Engineer duplicate signed copies of statement(s) from vendor(s), certifying that each container of seed delivered is labeled in accordance with Federal Seed Act and is at least equal to requirements specified therein. This certification shall be obtained from vendor and shall be furnished before application.

#### **5.0. PREPARATION OF GROUND SURFACE**

**5.1 General:** Equipment, in good operating condition, shall be used for the proper preparation of the ground and for handling and placing all materials. Equipment shall be acceptable before work is started.

**5.2 Topsoiling:** Topsoil shall be obtained from job site stockpiles formed during stripping and/or excavation operations and shall be free from subsoil, clay lumps, stones, brush, grasses or weeds, excess acids or alkali, or any other material to subsequent, smooth, grading, planting, and maintenance operations.

**5.3 Grading:** Previously established grades shall be maintained on the areas to be treated in a true and even condition; necessary repairs shall be made to previously graded areas by means of graders or other approved equipment.

**5.4 Tillage:** After the areas required to be treated have been brought to the grades shown, the soil shall be tilled to a depth of at least 4 inches by plowing, disking, harrowing, or other acceptable operations until the condition of the soil is acceptable. The work shall be performed only during period when beneficial results are likely to be obtained. When drought, excessive moisture, or other unsatisfactory conditions prevail, the work shall be stopped when directed. Undulations or irregularities in the surface shall be leveled before the next specified operation.

## 6.0 APPLICATION OF FERTILIZER AND LIMESTONE

6.1 Preplanting fertilization of areas to be seeded: Fertilizer shall be distributed uniformly at a rate of 800 pounds per acre over areas to be seeded and shall be mixed into the soil to a depth of at least 4 inches by disking, harrowing, or other acceptable methods. Application of fertilizer may be part of the operation specified in Section 5.4: TILLAGE of this specifications.

6.2 Liming: Immediately following or simultaneously with incorporation of fertilizer, limestone shall be distributed uniformly at a rate of 4000 pounds per acre, and shall be mixed into the soil to a depth of at least 4 inches by disking, harrowing, or other acceptable methods. Application of limestone along with fertilizer may be part of the operation specified in Section 5.4: TILLAGE of this specifications.

6.3 Leveling: Surface irregularities resulting from tillage, fertilizing, liming, or other operations shall be leveled before seeding.

6.4 Postplanting fertilization: From 40 to 60 days after seeding, ammonium nitrate or its nitrogen equivalent shall be applied uniformly at a rate of 225 pounds per acre over areas seeded. Fertilizer shall be applied when grass blades are dry to minimize burning. The planted area shall be watered to thoroughly moisten the upper 6 inches of the soil surface after the fertilizer is applied.

## 7.0 PLANTING SEED

7.1 General: A satisfactory method of sowing shall be employed, using approved mechanical power-drawn drills or seeders, or other approved methods. When drills are used, markers or other means shall be provided to ensure that the successive seeded strips will overlap or be separated by a space no greater than 6 inches. When delays in operations extend the work beyond the most favorable planting season for species designated or when conditions are such by reason of drought, high winds, excessive moisture, or other factors that satisfactory results are not likely to be obtained, work shall be halted as directed and resumed only when conditions are favorable or when approved alternate or corrective measure and procedures have been effected. If inspection during or after seeding operations indicates that strips wider than 6 inches have been left unplanted or other areas skipped, additional seed shall be sown.

7.2 Broadcast Seeding: Seeding shall be broadcast either by hand or with acceptable seeding equipment, in combination with fertilizer, or with other acceptable sowing equipment. Seed shall be distributed uniformly over designated areas. Half of the seed shall be sown with sower moving at right angles to first sowing. Seed shall be covered to an average depth of 1/4 inches by brush harrow, spiketooth harrow, chain harrow, cultipacker, hand rake with wood tines, or other approved device. Seed shall not be broadcast during windy weather.

**7.3 Drill Seeding:** Drill seeding shall be accomplished with approved equipment with drills set not more than 6 inches apart. Seed shall be sown uniformly over designated areas to average depth of 1/4 inch.

**7.4 Sodding:** All solid sod shall be procured areas where the soil is fertile and contains a high percentage of loamy topsoil, and from areas that have been grazed or mowed sufficiently to form a dense turf.

Mechanical devices, such as sod cutter, may be used for cutting the sod into strips or blocks. Care shall be exercised at all times to retain the native soil on the roots of the sod during the process of excavating, hauling and planting.

The solid sod blocks shall be transplanted within 24 hours from the time of cutting, unless they are stacked at their destination in a manner satisfactory to the Engineer. All solid sod in stacks shall be kept moist and protected from exposure to the air and sun, and from freezing. In no event shall more than two (2) days elapse between the cutting and planting of the solid sod.

Solid sod shall be planted during the period between March 1st and December 15th, unless written permission is given by the Engineer to extend the planting season. The solid sod shall be placed on the prepared surface with the edges in close contact. All cracks between blocks of solid sod shall be closed with small pieces of fresh sod and all cracks too small for sod shall be filled by a light dressing of topsoil. The entire sodded area shall then be compacted and watered to the satisfaction of the Engineer. Rollers, hand tamps or other approved equipment may be used for compacting.

Surfaces of solid sodding which, in the opinion of the Engineer, may slide due to the height and slope of the surface or nature of the soil, shall, upon direction of the Engineer, be "pegged" with wooden pegs driven through the sod blocks into firm earth, sufficiently close to hold the sod in place.

## **8.0 MAINTENANCE**

Seeded areas shall be maintained until all work or designated portions thereof have been completed and accepted. Tall grass and weeds that tend to impede the desired grass species shall be mowed, and any damage resulting from these operations shall be repaired at the Contractor's expense.

## **9.0 ESTABLISHMENT OF GROWTH**

**9.1 General :** The Contractor shall be responsible for proper care of seeded areas while grass is becoming established for three (3) months after completion of treatment on the entire project, unless desired cover is established in a shorter period of time and the Owner shortens responsibility period. The Contractor shall be responsible for providing a satisfactory stand of grass. A satisfactory stand of grass is determined as a cover of

living grass in which gaps larger than 12 inches square do not occur as determined by an acceptance inspection made at the end of the maintenance period. Maintenance work shall be performed at the Contractor's expense.

9.2 Mowing: Seeded and sodded areas shall be mowed with acceptable mowing equipment to a height of about 4 inches when average height of grass becomes about 8 inches. When amount of cut grass is heavy, grass shall be removed to prevent destruction of underlying turf. If weeds or other undesirable vegetation threatens to impede the growth of planted species, such vegetation shall be mowed, or in case of excessive growth, shall be uprooted, raked and removed from area.

9.3 Refertilizing: The Contractor will determine areas needing refertilization at least 15 days before application is required. Fertilization shall be distributed on designated area during periods when grass is dry. 13-13-13 grade fertilizer shall be applied uniformly at a rate of 800 pounds per acre. Fertilizer conforming to physical condition, packaging and marking as specified hereinbefore shall be provided.

9.4 Reseeding: The Contractor will determine areas requiring reseeding at least 15 days before period specified for reseeding. Seed specified hereinbefore shall be drilled at rates hereinbefore specified, in a manner that will cause minimum disturbance to existing stand of grass, and at an angle of not less than 15 degrees from direction of previously seeded rows.

## **ADVERTISEMENT FOR BIDS**

NOTICE is hereby given that the City Clerk of the **City of Hattiesburg**, MISSISSIPPI, will receive sealed bids until **10:00 A.M.** on **August 9, 2018** in City Council Chambers at City Hall, 200 Forrest Street, Hattiesburg, MS 39401, and then at said location will open and read aloud bids received for furnishing the City's requirements for the following:

### **INFRASTRUCTURE REHABILITATION ARLEDGE STREET & KATIE AVENUE AREA HATTIESBURG, MISSISSIPPI**

Official bid documents can be downloaded from Central Bidding at [www.centralbidding.com](http://www.centralbidding.com). Electronic bids can be submitted at [www.centralbidding.com](http://www.centralbidding.com). For any questions relating to the electronic bidding process, please call Central Bidding at 225-810-4814. All bids must be accompanied by bid security equal to 5% of the amount of the bid, in the form of a certified check, cashier's check or a bid bond written by a company properly licensed in Mississippi.

Each BID must be received sealed and marked EXACTLY as follows:

BID:

### **INFRASTRUCTURE REHABILITATION ARLEDGE STREET & KATIE AVENUE AREA HATTIESBURG, MISSISSIPPI**

No bid may be withdrawn for a period of sixty (60) days. The lowest and best proposal received will be accepted, subject to the provisions of Section 31-7-13 of the Mississippi Code of 1972, Annotated and Amended, and other applicable State law; but the Council reserves the right to reject any or all proposals received and to waive informalities.

PUBLISHED by Order of the Council on the \_\_\_\_ day of \_\_\_\_ A.D., 2018.

CITY OF HATTIESBURG, MISSISSIPPI

BY: \_\_\_\_\_  
Kermas Eaton, City Clerk

Publish on July 12, 2018 and July 19, 2018  
City of Hattiesburg  
Return PROOF to City Clerk's Office  
PO Box 1898  
Hattiesburg, MS 39403

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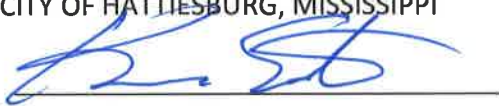
Each BID must be received sealed and marked EXACTLY as follows:

#### **BID: INFRASTRUCTURE REHABILITATION ARLEDGE STREET & KATIE AVENUE AREA HATTIESBURG, MISSISSIPPI**

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PUBLISHED by Order of the Council on the \_\_\_\_ day of \_\_\_\_ A.D., 2018.

CITY OF HATTIESBURG, MISSISSIPPI

BY: 

Kermas Eaton, City Clerk

Publish on July 12, 2018 and July 19, 2018

City of Hattiesburg

Return PROOF to City Clerk's Office

PO Box 1898

Hattiesburg, MS 39403

# **City of Hattiesburg, MS**

*200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401*



## **Meeting Agenda - Final**

**Tuesday, July 3, 2018**

**5:00 PM**

**Council Chambers**

**City Council - Amendments to the Agenda**

**Add Policy Agenda Item VI.-10 at the request of the Administration as follows:**

- VI.-10**     [2018-585](#)     Approve engagement letter from Gladden Law Office, PLLC to represent the City of Hattiesburg in the case of (Utpal N. Patel and Manisha, Inc v. City of Hattiesburg) providing legal services in defending the appeal of a recent zoning decision made regarding a property located at North 38th Avenue.

**Attachments:**     [Gladden Letter of Engagement](#)

**Add Routine Agenda Items VII.-11 and VII.-12 at the request of the Administration as follows:**

- VII.-11**     [2018-588](#)     Authorize and Approve publication of Notice of Public Comment and review on the Draft Local on FY 2019-2022  
Hattiesburg-Petal-Forrest-Lamar Metropolitan Planning Organization Transportation Improvement Plan(TIP) and establishing a public comment period beginning July 12, 2018 and ending on August 30, 2018.

**Attachments:**     [NOTICE FOR PUBLIC COMMENT - HPFL-MPO FY 2019-2022 TIP](#)

- VII.-12**     [2018-589](#)     Approve the issuance of vehicle for hire permit/badge to Quincy Mashard Chapman, to drive for Loyal Limousines,Inc.

**Attachments:**     [Permit](#)





# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-585**

**File ID:** 2018-585

**Type:** Regular Agenda Item

**Status:** Passed

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:**

**File Created:** 07/03/2018

**Brief Title:** Letter of Engagement for legal services from Gladden Law Office for a recent zoning decision.

**Final Action:** 07/03/2018

**Minute Book Number:** MB2018-171

**Title:**

Approve engagement letter from Gladden Law Office, PLLC to represent the City of Hattiesburg in the case of (Utpal N. Patel and Manisha, Inc v. City of Hattiesburg) providing legal services in defending the appeal of a recent zoning decision made regarding a property located at North 38th Avenue.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:**

**Sponsors:**

**Enactment Date:**

**Attachments:** Gladden Letter of Engagement

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:**

**Effective Date:**

### History of Legislative File

| Ver-<br>sion: | Acting Body:                                  | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|-----------------------------------------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council -<br>Amendments to the<br>Agenda | 07/03/2018 |         |          |           |                 |         |
| 1             | City Council                                  | 07/03/2018 |         |          |           |                 |         |
| 1             | City Council                                  | 07/03/2018 | Approve |          |           |                 | Pass    |

**Action Text:** A MOTION was made by Council Vice President Dryden and seconded by Council Member George to Approve engagement letter from Gladden Law Office, PLLC to represent the City of Hattiesburg in the case of (Utpal N. Patel and Manisha, Inc v. City of Hattiesburg) providing legal services in defending the appeal of a recent zoning decision made regarding a property located at North 38th Avenue.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 3 - George, Carroll and Dryden

Nays: 0

Abstain: 2 - Delgado and Brown

Yea: 3 Council Member George  
Council President Carroll  
Council Vice President Dryden

Abstain: 2 Council Member Delgado  
Council Member Brown

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## **Text of Legislative File 2018-585**

### **Title**

Approve engagement letter from Gladden Law Office, PLLC to represent the City of Hattiesburg in the case of (Utpal N. Patel and Manisha, Inc v. City of Hattiesburg) providing legal services in defending the appeal of a recent zoning decision made regarding a property located at North 38th Avenue.

### **Summary**

Letter of Engagement from Gladden Law Office, PLLC.

### **Budget Information**

### **Expenditure Type**

### **Purchasing Item**

### **Publication Information**

**Gladden Law Office, PLLC**  
**15 Troon Circle**  
**Hattiesburg, Mississippi 39401**

**Phones:**  
601.270.2198  
866.754.0466 (E-FAX)

**Mailing Address:**  
Post Office Box 1854  
Hattiesburg, MS 39403  
Email: [gladdenlaw@megagate.com](mailto:gladdenlaw@megagate.com)

July 02, 2018

Mayor and City Council  
City of Hattiesburg  
City Hall  
Hattiesburg, Mississippi 39401

**Re:** Representing the City in the Appeal of Zoning Decision  
*Utpal N. Patel and Manisha, Inc. v. City of Hattiesburg, Mississippi*  
Forrest County Circuit Court; CA No. W18-0100

Dear Mayor Barker and City Council Members:

This engagement letter is a proposal to provide the City with legal services to assist in defending the appeal of a recent zoning decision made by the City Council from a petition filed by Utpal N. Patel and Manisha, Inc. to rezone property located on North 38<sup>th</sup> Avenue. I will work and coordinate with the City Attorney as well as with all appropriate City departments and officials in handling this appeal, and will also provide to them and you proper status reports as to the progress of this matter through the appeal. I would propose my hourly rate of compensation as \$140.00 per hour plus any reasonable expenses incurred in performing duties for the City.

I will be pleased to furnish to you and others in the City administration with additional information needed to evaluate this proposal. Further, I will meet with you and other city officials at any time to discuss terms of the proposed engagement for services.

Sincerely,

**GLADDEN LAW OFFICE, PLLC**

**S/ James W. Gladden, Jr.**

James W. Gladden, Jr.

JWG,Jr./pcg



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-588**

**File ID:** 2018-588

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:**

**File Created:** 07/03/2018

**Brief Title:** Notice of Public Comment for 2019-2022  
Transportation Improvement Plan.

**Final Action:**

**Minute Book Number:** MB2018-172

**Title:**

Authorize and Approve publication of Notice of Public Comment and review on the Draft Local on FY 2019-2022 Hattiesburg-Petal-Forrest-Lamar Metropolitan Planning Organization Transportation Improvement Plan(TIP) and establishing a public comment period beginning July 12, 2018 and ending on August 30, 2018.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:**

**Sponsors:**

**Enactment Date:**

**Attachments:** NOTICE FOR PUBLIC COMMENT - HPFL-MPO FY  
2019-2022 TIP

**Enactment Number:**

**Contact:**

**Meeting Date:**

**Drafter:**

**Effective Date:**

## History of Legislative File

| Ver-<br>sion: | Acting Body:                                  | Date:      | Action: | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|-----------------------------------------------|------------|---------|----------|-----------|-----------------|---------|
| 1             | City Council -<br>Amendments to the<br>Agenda | 07/03/2018 |         |          |           |                 |         |
| 1             | City Council                                  | 07/03/2018 |         |          |           |                 |         |
| 1             | City Council                                  | 07/03/2018 |         |          |           |                 |         |

## Text of Legislative File 2018-588

### Title

Authorize and Approve publication of Notice of Public Comment and review on the Draft Local on FY 2019-2022 Hattiesburg-Petal-Forrest-Lamar Metropolitan Planning Organization Transportation Improvement Plan(TIP) and establishing a public comment period beginning

July 12, 2018 and ending on August 30, 2018.

**Summary**

Notice for Public Comment MPO (TIP)

**Budget Information**

**Expenditure Type**

**Purchasing Item**

**Publication Information**



**NOTICE FOR PUBLIC COMMENT**  
**Hattiesburg-Petal-Forrest-Lamar Metropolitan Planning Organization**  
**FY 2019-2022 TRANSPORTATION IMPROVEMENT PLAN (TIP)**

The Hattiesburg-Petal-Forrest-Lamar Metropolitan Planning Organization (HPFL-MPO) is holding a forty-five (45) days public comment period beginning Thursday, **July 12, 2018** for the public to review and provide comments upon a draft of the FY 2019-2022 Transportation Improvement Plan (TIP). This process is being conducted in accordance with the Planning Public Participation Procedures and Federal/State regulations. The Hattiesburg Metropolitan Area TIP is part of the overall Statewide Transportation Improvement Program (STIP) document.

A copy of the draft document is available for review at the Hattiesburg Train Depot, 308 Newman Street, Hattiesburg MS 39401; the offices of the MPO staff; and at the MPO website: <http://www.hattiesburgms.com/government/departments/urban-development/metropolitan-planning-organization>

**The Public Hearings will take place on:**

**Wednesday, August 8, 2018** from 4-6 p.m. @ Historic Train Depot (Forrest County), 308 Newman Street

The public comment period for the FY 2019-2022 TIP begins on **July 12, 2018**, and written comments will be accepted **until August 30, 2018**. Please send your comments **to Calvin Russell, HPFL Metropolitan Planning Organization, 308 Newman Street, Hattiesburg, MS 39401, or via email at [mpo@hattiesburgms.com](mailto:mpo@hattiesburgms.com)**.

**For addition information or to make a request contact:**

Calvin Russell, HPFL-MPO Manager  
(601) 545-6259 Fax: (601) 545-6327

Or

Addie West, MPO Administrative Assistant  
(601) 545-6325 Fax: (601) 545-6327

To ensure compliance with the Americans with Disabilities Act (ADA), persons with disabilities that require aids or services to participate can contact the HPFL-MPO office at (601) 545-6259; or e-mail [mpo@hattiesburgms.com](mailto:mpo@hattiesburgms.com) to make arrangements.



# City of Hattiesburg, MS

200 Forrest St.  
P.O. Box 1898  
Hattiesburg, MS 39401

## Master

**File Number: 2018-589**

**File ID:** 2018-589

**Type:** Regular Agenda Item

**Status:** Agenda Ready

**Version:** 1

**Reference:**

**In Control:** City Council

**Requester:**

**File Created:** 07/03/2018

**Brief Title:** Permit to operate Taxi/ Vehicle for Hire.Quincy  
Chapman Loyal Limousines, Inc.

**Final Action:**

**Minute Book Number:** MB2018-172

**Title:**

Approve the issuance of vehicle for hire permit/badge to Quincy Mashard  
Chapman, to drive for Loyal Limousines,Inc.

**Notes:**

**Agenda Date:** 07/03/2018

**Indexes:**

**Agenda Number:**

**Sponsors:**

**Enactment Date:**

**Attachments:** Permit

**Enactment Number:**

**Contact:**

**Meeting Date:** 07/03/2018

**Drafter:**

**Effective Date:**

## History of Legislative File

| Ver-<br>sion: | Acting Body:                                  | Date:      | Action:                                                                                                                                                                                       | Sent To: | Due Date: | Return<br>Date: | Result: |
|---------------|-----------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------|-----------------|---------|
| 1             | City Council -<br>Amendments to the<br>Agenda | 07/03/2018 |                                                                                                                                                                                               |          |           |                 |         |
| 1             | City Council                                  | 07/03/2018 | <b>Action Text:</b> There being no discussion, the Motion received the affirmative vote of the Council as follows:<br><br>Yeas: 5 - George, Delgado, Carroll, Dryden and Brown<br><br>Nays: 0 |          |           |                 |         |
| 1             | City Council                                  | 07/03/2018 |                                                                                                                                                                                               |          |           |                 |         |

## Text of Legislative File 2018-589

### Title

Approve the issuance of vehicle for hire permit/badge to Quincy Mashard Chapman, to drive for  
Loyal Limousines,Inc.

**Summary**

Permit to operate Taxi/Vehicle for Hire.

**Budget Information**

**Expenditure Type**

**Purchasing Item**

**Publication Information**



## A PERMIT TO OWN OR OPERATE A TAXI CAB

OWNER / OPERATOR PERMIT NUMBER: PTL 07-17-010580 FEE: \$25.00

BADGE NUMBER / PERMIT NUMBER: INS:   X  

COMMERCIAL DRIVER'S LICENSE NO: **801707058**

COMMERCIAL DRIVER'S LICENCE EXPIRES **01-21-2021**

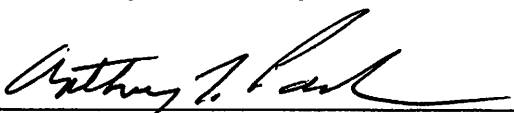
**Quincy Mashard Chapman** having complied with the terms and conditions of Ordinance No. 2157 of the City of Hattiesburg is hereby granted a permit to own or operate a motor vehicle for the **Loyal Limousines, Inc.** for carrying passengers for hire over the streets, avenues, and alleys of the City of Hattiesburg, Mississippi.

THIS PERMIT shall be valid for one (1) year from the date of issuance, unless cancelled prior to said date by the Mayor and Council or such duly constructed legislative body as may be the successor to such Council, as provided by said Ordinance.

THIS PERMIT issued for a term of  
one (1) year beginning 07/01/2018 and ending 07/31/2019.

CITY OF HATTIESBURG, MISSISSIPPI

BY: \_\_\_\_\_  
Toby Barker, Mayor

APPROVED BY:   
Anthony Parker, Chief of Police

ATTEST:

\_\_\_\_\_  
KERMAS EATON, CITY CLERK