

Stantec Consulting Services Inc.
3052 Beaumont Centre Circle, Lexington, KY 40513-1703
Phone: (859) 422-3000
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Project: Big Creek Lake Dam – Toe Berm and Drainage Improvements
Addendum No: 1
Date: August 14, 2024
Owner: MAWSS
Contract No. 175578363

This addendum is to be read with and constitutes part of the bid documents.

Instructions to Bidders:

1. Amend your copy of the bid documents in accordance with the detail below
2. Retain one copy for your file; sign and return a second copy and attach to your proposal as confirmation that the Addendum was taken into account in your bid proposal.
3. Failure to sign and return this form may result in a non-compliant bid.

Details of the Addendum:

1. Advertisement:
 - Update with revised bid submittal date.
2. Prequalification of Contractors-RFQ:
 - Revised document text including RFQ/Bid Timeline.

RFQ Timeline:

- A One Drive link will be sent to Contractors to access bid documents upon request. Prequalification Proposals will not be accepted after August 23, 2024.

Bid Timeline:

- Pre-Bid Meeting (Tentative).....September 24, 2024
- Deadline for Bidders to Submit Questions (at 2:00 PM).....September 24, 2024
- Engineer Issues Responses to Questions.....October 2, 2024
- Deadline for Bidders to Submit Bids (at 12:00 PM).....October 7, 2024
- Notification of Award (Tentative).....November 4, 2024

3. IFB Contract Documents and Specifications:
 - Updated Davis Bacon Wage Rates (6/28/2024)
 - Updated SRF Supplemental General Conditions with BABA
 - Revised document text including RFQ/Bid Timeline
 - Updated contract time under Proposal Page 2 from 343 days to 245 days
 - Filled in liquidated damages line on Contract Page 2, Item 6 to read \$1,000/day
 - Updated Proposal Sheet to unit pricing

4. IFB Drawing Package:
 - Estimated Material Quantities table added to sheet G-002.

5. **Build America, Buy America (BABA):** ADEM has indicated that Build America, Buy America (BABA) may apply to this project, depending upon the funding source. AIS will definitely be applicable. Do you anticipate any non-domestic material being required for the project that would create potential issues with meeting BABA and/or AIS? The de minimis waiver would still be available if needed. The de minimis waiver allows nondomestic material to be utilized, provided no single item accounts for more than 1% of the total material cost, and the total of de minimis items does not exceed 5% of total material cost. If the de minimis waiver is used, the Contractor will need to keep a log of both the de minimis and non-de minimis items.

6. Attachments:
 - Advertisement.
 - Prequalification of Contractors-RFQ.
 - IFB Contract Documents and Specifications.
 - IFB Drawing Package.
 - Davis Bacon Wage Rates (6/28/2024)
 - Updated SRF Supplemental General Conditions with BABA
 - Updated Proposal Sheet to unit pricing

Stantec Consulting Services Inc.



Kip Anderson PE, PG
Principal
Phone: 859-422-3074
Kip.Anderson@stantec.com

Name of Firm _____
Authorized Signature _____
Printed Name _____ Date _____

Invitation for Bids

Sealed bids from General Contractors shall be submitted and will be received by the Board of Water and Sewer Commissioners of the City of Mobile, Alabama ("Board"), at the Wesley A. James Operations Center, 4725 Moffett Road, Mobile, AL 36618-0249; until 12:00 PM, local time, October 7, 2024, for the following project:

Contract No.: 175578363

Project Name: BIG CREEK LAKE DAM TOE BERM AND DRAINAGE IMPROVEMENTS

Plans and Specifications may be inspected at the Board's offices at 4725 Moffett Road, Business Center Entrance, Mobile, Alabama. Electronic Plans and Specifications may be obtained via e-mail from Kip Anderson at kip.anderson@stantec.com. No Contract Documents will be issued later than twenty-four (24) hours prior to bid submission time.

The project will generally include construction of a filter berm, filter blanket, and drainage ditch and piping improvements along the downstream face and downstream toe of Big Creek Lake Dam. The work of the project includes but is not limited to the following: construction of a reverse graded sand and gravel filter berm at the downstream toe of the dam and within the two downstream channels; construction of a sand and gravel reverse graded filter blanket along the downstream toe of the embankment; grading of a gravel access road across the filter berm and filter blanket, replacement of the impacted internal drainage and stormwater piping, installation of new stormwater drainage piping, installation of precast concrete headwalls for stormwater and internal drainage outlets, realignment of a downstream ditch and installation of reverse graded filter blanket within two downstream ditches; relocation of existing instrumentation including weir flume boxes; temporary erosion control, and seeding and sodding.

As one of the conditions of submitting a bid, it must be understood that knowledge and experience is extremely important. Therefore, the construction firm will have to submit evidence and proof acceptable to the Board of their ability, knowledge, experience, training of supervisory personnel and labor, and will be required to submit evidence and proof that construction firm has performed work of a similar nature and that such work was satisfactorily completed.

Bidders must pay special attention to the requirement to utilize Disadvantaged Businesses Enterprises ("DBEs"). This project will receive funding from the Alabama Department of Environmental Management DWSRF Loan Program. Thus, General Contractors shall comply with the DBE requirements of MAWSS DBE Policy 16-01 and the Supplemental General Conditions for SRF Assisted Public Drinking Water and Wastewater Facilities Construction Contract.

The Board reserves the right to reject any or all bids, to waive technical errors, and/or abandon this process if, in their judgment, the best interests of the Owner will thereby be promoted.

THIS INVITATION FOR BIDS FROM CONTRACTORS IS CONDENSED FOR ADVERTISING PURPOSES.
ADDITIONAL INFORMATION/REQUIREMENTS FOR BIDDERS CAN BE FOUND IN THE CONTRACT DOCUMENTS.

THE BOARD OF WATER AND SEWER COMMISSIONERS
OF THE CITY OF MOBILE, ALABAMA

Prequalification of Contractors
Request for Qualifications

Prequalification Proposals (Letters of Interest (“LOI”) and Statements of Qualifications (“SOQ”) from General Contractors shall be submitted and will be received by the Board of Water and Sewer Commissioners of the City of Mobile, Alabama (“Board”), at the Wesley A. James Operations Center, 4725 Moffett Road, Suite A, Mobile, AL 36618-0249; until 12:30 PM, local time, August 23, 2024, for the following project:

Contract No.: 175578363

Project Name: Big Creek Lake Dam Toe Berm and Drainage Improvements

Bid and Construction Documents will be made available to Potential Bidders upon request. Prequalified Bidders will be notified in writing on or before August 30th, 2024.

Stantec Consulting Services Inc. (“Stantec”) has prepared this Request for Qualifications (“RFQ”) to seek an experienced and qualified General Contractor to provide specified construction services for the Big Creek Lake Dam Toe Berm and Drainage Improvements project.

As one of the conditions of submitting a SOQ, it must be understood that knowledge and experience is extremely important. Therefore, the construction firm will have to submit evidence and proof acceptable to the Board of their ability, knowledge, experience, training of supervisory personnel and labor, and will be required to submit evidence and proof that construction firm has performed work of a similar nature within the last twenty-four (24) months and that such work was satisfactorily and safely completed.

The Owner reserves the right to reject any or all proposals, to waive technical errors, and/or abandon this process if, in their judgment, it is in the best interests of the Owner will thereby be promoted.

Construction service firms interested in this RFQ shall contact Stantec and request placement on the RFQ mailing list to ensure receipt of amendments and other relevant information. All correspondence should be directed to: Kip Anderson at kip.anderson@stantec.com or 859-422-3000.

Sealed bid proposals will be received only from Prequalified General Contractor Bidders by the Board of Water and Sewer Commissioners of the City of Mobile, Alabama (“Board”), at Wesley A. James Operations Center, 4725 Moffett Road, Suite A, Mobile, AL 36618-0249; UNTIL 12:00 PM LOCAL TIME; ON MONDAY, October 7, 2024, and then publicly opened and **read at 1:00 p.m.**

The Work of the project includes, but is not limited to the following:

1 Summary of Offering

1.1 Overview and Background

The project will generally include construction of a filter berm, filter blanket, and drainage ditch and piping improvements along the downstream face and downstream toe of Big Creek Lake Dam. The work of the project includes but is not limited to the following: construction of a reverse graded sand and gravel filter berm at the downstream toe of the dam and within the two downstream channels; construction of a sand and gravel reverse graded filter blanket along the downstream toe of the embankment; grading of a gravel access road across the filter berm and filter blanket, replacement of the impacted internal drainage and stormwater piping, installation of new stormwater drainage piping, installation of precast concrete headwalls for stormwater and internal drainage outlets, realignment of a downstream ditch and installation of reverse graded filter blanket within two downstream ditches; relocation of existing instrumentation including weir flume boxes; temporary erosion control, and seeding and sodding.

1.2 Project Location

The project is located along the toe of Big Creek Lake Dam at Tanner Williams Road (County Road 70) in Mobile County, Alabama.

1.3 DWSRF Funding

This project will receive funding from the Alabama Department of Environmental Management Drinking Water State Revolving Fund (“DWSRF”) Loan Program. The Supplemental General Conditions for SRF Assisted Public Drinking Water and Wastewater Facilities Construction Contract shall apply to this project.

1.4 Project Partners

- Owner: Mobile Area Water & Sewer System (“MAWSS”)
- Owner’s Representative: Doug Cote
- Engineer: Kip Anderson, PE (Stantec)

2 Scope of Services

2.1 Scope of Work

The scope of work is described in general above in Section 1.1 – Overview and Background. Additional details for the major components are described below:

- Filter Blanket: The Prime Contractor shall be responsible for construction of the reverse graded sand and gravel filter blanket at the downstream toe of the dam. This task includes erosion control installation, maintenance, and removal; site clearing; imported fill/backfill materials; grading; and gravel access drive.
- Filter Berm (Toe Berm): The Prime Contractor shall be responsible for construction of a reverse graded sand and gravel filter berm at the downstream toe of the dam and within the two

downstream channels. This task includes erosion control installation, maintenance, and removal; site clearing; imported fill/backfill materials; grading.

- Drainage Improvements: The Prime Contractor shall be responsible for replacement of the impacted internal drainage and stormwater piping, installation of new stormwater drainage piping, installation of precast concrete headwalls for stormwater and internal drainage outlets, and relocation of existing instrumentation including weir flume boxes.
- Downstream Ditches: The Prime Contractor shall be responsible for realignment of a downstream ditch and installation of a reverse graded filter blanket within the two downstream ditches. This task includes erosion control installation, maintenance, and removal; imported fill/backfill materials; and grading.

3 Proposed Timeline and Contact Information

3.1 Contact Information:

Construction service firms interested in this RFQ shall contact Stantec and request placement on the RFQ mailing list to ensure receipt of amendments and other relevant information. All correspondence should be directed to: Kip Anderson at kip.anderson@stantec.com or 859-422-3000.

3.2 Proposed RFQ Timeline:

A One Drive link will be sent to Contractors to access bid documents upon request. Prequalification Proposals will not be accepted after August 23, 2024.

3.3 Proposed Bid Timeline:

Pre-Bid Meeting (Tentative).....	September 24, 2024
Deadline for Bidders to Submit Questions (at 2:00 PM).....	September 24, 2024
Engineer Issues Responses to Questions.....	October 2, 2024
Deadline for Bidders to Submit Bids (at 12:00 PM).....	October 7, 2024
Notification of Award (Tentative).....	November 4, 2024

4 General Requirements and Qualifications

The Prime Contractor shall be responsible for all work included in the project. It is assumed that the Prime Contractor will contract with subcontractors to complete portions of the overall work; however, the Prime Contractor shall be the sole party responsible for all work in this project. As a

condition of submitting a Prequalification Proposal, it must be understood that knowledge and experience is extremely important. Therefore, the Prime Contractor shall be required to submit evidence of their and their subcontractors' ability, knowledge, and experience in performing work of similar nature and that such work was satisfactorily completed. Qualifications of subcontractor(s) used to obtain prequalification status must be included in each General Contractor's Prequalification Proposal.

4.1 DBE Requirements

Refer to MAWSS Policy No. DBE 16-01 Disadvantaged Business Enterprise Policy for Public Works Act Contracts, which states that contractors shall make a demonstrated good faith effort to award fifteen percent (15%) of the contract amount to certified Disadvantaged Business Enterprises as subcontractors and/or suppliers performing commercially useful functions which are consistent with contract requirements. Further information for requirements during the bidding and contract performance phases are provided in Policy No. DBE 16-01 and should be considered by prospective bidders. Also, bidders must list all DBE subcontractors and suppliers on the provided Subcontracting Plan form to be submitted with the package.

5 Content of Prequalification Proposals

Prequalification Proposals shall be emailed to the following people:

- Kip Anderson – Kip.Anderson@stantec.com
- Stephen Karpenko – Stephen.Karpenko@stantec.com
- Markus Moore – mamooore@mawss.com

Prequalification Proposals should be a straightforward delineation of the Prime Contractor's capability to satisfy the requirements presented herein. An officer authorized to make a binding commitment on behalf of the Prime Contractor shall sign the Prequalification Proposal.

5.1 Letter of Interest

The letter shall contain the following:

- The primary contact for the Prime Contractor and that person's title, address, phone number, and email address.

- An acknowledgement that the Prime Contractor has reviewed this Invitation for Bids as well as any and all amendments issued.
- An introduction to the Prime Contractor's project team. This shall list the major subcontractors, suppliers, and other service providers who the Prime Contractor will utilize for completing the work of this project. The DBE status (i.e., MBE or WBE) of each shall be indicated.
- A general statement of prior experience performing similar projects.
- A statement that the Prime Contractor is not in arrears in the payment of any obligation due and owed to the State of Alabama, including but not limited to tax payments and employee benefits, and that it shall not become so during the term of the agreement if selected.
- Any other relevant information that is not captured elsewhere in the bid proposal submittal.

5.2. Qualifications

The bidder's Statement of Qualifications shall identify who will be responsible for each of the following and include resumes demonstrating their qualifications.

- Prime Contractor:
 - o Prime Contractor
 - o Project Manager
 - o Project Superintendent

Qualifications for the Prime Contractor that must be demonstrated in the bidder's statement of qualifications are:

- The bidder shall be licensed as a General Contractor by the Alabama State Licensing Board.
- The bidder must have 10 years' continuous experience immediately preceding the submission of the bid performing work of similar scope and complexity.

- The bidder's project manager and project superintendent must have the knowledge, training, and experience to complete the work of this project/contract. Both the project manager and project superintendent must have a minimum of 5 years' continuous experience as an employee of the general contractor immediately preceding the submission of the bid performing work of similar scope and complexity.
- The bidder must furnish proof that it owns, or has in its possession and control, appropriate and sufficient equipment to properly perform all work required under this contract. The resumes shall succinctly demonstrate that the suppliers of the drainage systems and the key personnel are capable of designing, manufacturing, and placing into service the components described in this Invitation for Bid (complete in place and ready for service).

Specific qualifications that must be demonstrated in the bidder's Statement for Qualifications are:

- The supplier shall be capable of complying with the requirement that all the iron and steel products used in the project are produced in the United States (commonly referred known as "American Iron and Steel"), as specified in the Supplemental General Conditions for SRF Assisted Public Drinking Water and Wastewater Facilities Construction Contract. The Prime Contractor shall be responsible for complying with all recordkeeping and reporting requirements
- The supplier shall have an emergency response time ability of less than 4 hours.

6. Evaluation of Prequalification Proposals

Prequalification Proposals will be reviewed by the Owner and Engineer. Selection of Prequalified Bidders will be based on whether the respondent's Prequalification Proposal complies with the requirements herein and demonstrates that the respondent's team meets the minimum qualifications specified. The Board reserves the right to contact proposers with request for clarification or additional information or to arrange other follow-up activities it deems appropriate. The Board reserves the right to reject any or all proposals, to waive technical errors, and/or abandon this process if, in their judgement, the best interests

of the Board and MAWSS will thereby be promoted. Attachment – Supplemental General Conditions for SRF Assisted Public Drinking Water and Wastewater Facilities Construction Contracts



Big Creek Lake Dam – Toe Berm

Contract No. 175578363

Contract Documents and Specifications

Issue For Bid (IFB) Design Package

August 07, 2024

TABLE OF CONTENTS

PART 1 – CONTRACT DOCUMENTS

Invitation for Bids
Bid Submittal Checklist
Statement of Qualifications
Proposal
Proposed Subcontracting Plan
Bid Bond
Contract
Contract Bond
Labor and Material Bond
Supplemental General Conditions for SRF Contracts

PART 2 – GENERAL CONDITIONS

Section 1 – Definition of Terms
Section 2 – Proposal Requirements and Conditions
Section 3 – Award and Execution of Contracts
Section 4 – Scope of Work
Section 5 – Control of Work
Section 6 – Control of Material
Section 7 – Legal Relations and Responsibility to Public
Section 8 – Prosecution and Progress
Section 9 – Testing Materials

PART 3 – CONSTRUCTION SPECIFICATIONS

Section 10 – Special Provisions

PART 4 – TECHNICAL SPECIFICATIONS

DIVISION 01 – GENERAL REQUIREMENTS

- 01 10 00 Summary
- 01 14 00 Construction Staking and Layout
- 01 26 00 Contract Modification Procedures
- 01 29 00 Payment Procedures
- 01 32 00 Construction Progress Documentation
- 01 33 00 Submittal Procedures
- 01 35 13 Site Preparation
- 01 50 00 Temporary Facilities and Controls
- 01 57 23 Stormwater Pollution Prevention
- 01 77 00 Closeout Procedures
- 01 78 39 Project Record Documents
- 01 79 00 Demonstration and Training

DIVISION 02 – EXISTING CONDITIONS

- 02 41 00 Demolition

DIVISION 03 – CONCRETE

- 03 30 00 Cast-In-Place Concrete
- 03 40 00 Precast Concrete

DIVISION 31 – EARTHWORK

- 31 10 00 Site Clearing
- 31 20 00 Earth Moving
- 31 23 33 Trenching and Backfilling
- 31 25 00 Erosion and Sedimentation Controls

DIVISION 32 – EXTERIOR IMPROVEMENTS

- 32 92 00 Lawns and Grasses

DIVISION 33 – UTILITIES

- 33 41 00 Subdrainage

END OF SECTION

PART 1
CONTRACT DOCUMENTS

INVITATION FOR BIDS

Sealed bids will be received by the Board of Water and Sewer Commissioners of the City of Mobile, Alabama ("Board"), at the Wesley A. James Operations Center, 4725 Moffett Road, Suite A, Mobile, AL 36618-0249 until 12:00 PM (local time), October 7, 2024, for furnishing all labor, materials, and performing all work for the following project:

Contract No.: 175578363

Project Name: Big Creek Lake Dam Toe Berm

Plans and Specifications may be inspected at the Board's offices at 4725 Moffett Road, Business Center Entrance, Mobile, Alabama. Electronic Plans and Specifications may be obtained via e-mail from Kip Anderson at kip.anderson@stantec.com or 859-422-3000. No Contract Documents will be issued later than twenty-four (24) hours prior to bid submission time.

A Pre-Bid Conference will be held at the MAWSS Board Room at 4725 Moffett Road, Suite A, Mobile, Alabama 36618-0249 on September 24, 2024, at 2:00 PM (tentative) to discuss bidding and project requirements. Attendance is required for all bidders who intend to submit bids. The exact date and time of the Pre-Bid Conference will be provided on September 20, 2024.

The deadline for acceptance of questions from bidders will be September 24, 2024.

Bids must be submitted on the standard forms included with the Contract Documents.

Envelopes containing bids must be sealed and delivered to:

Director, Board of Water and Sewer Commissioners of the City of Mobile, AL
ATTN: Doug Cote, Water & Sewer Assistant Director – Operations
4725A Moffett Rd
Mobile, AL 36618-0249

Bidders must include the following on the sealed envelopes containing their bids:

Bid for constructing Contract No.: 175678363

Project Name: Big Creek Lake Dam Toe Berm

To be opened at 12:00 p.m., Local Time, November 4, 2024

Contractor's License Number and Discipline: (to be completed by bidder)

Bid guarantee in the form of certified check, bid bond, or Irrevocable Letter of Credit acceptable to the Board will be required for at least 5% of the bid amount, **not to exceed \$10,000.**

The Board reserves the right to reject any and all bids and to waive any informality in bids received.

THIS INVITATION FOR BIDS IS CONDENSED FOR ADVERTISING PURPOSES. ADDITIONAL INFORMATION/REQUIREMENTS FOR BIDDERS CAN BE FOUND IN THE CONTRACT DOCUMENTS.

THE BOARD OF WATER AND SEWER COMMISSIONERS
OF THE CITY OF MOBILE, ALABAMA

BID SUBMITTAL CHECKLIST

Bidders shall include a **Statement of Qualifications** in their bid proposal submittals. Minimum qualifications and required content for the Statement of Qualifications are identified on the following page.

Bidders shall include the following forms (included in this Invitation for Bids) in their bid proposal submittals:

- **Proposal** (4 pages)
- **Subcontracting Plan** (1 page)
- **SSO and Unpermitted Discharge Prevention Notification** (1 page)
- **MAWSS Disadvantaged Business Enterprise Policy for Public Works Act** (6 pages): Each sheet shall be initialed and dated to acknowledge that the bidder has received, reviewed, and agreed to the requirements. The Change of Sub-Contractor Form does not have to be completed.
- **Proposal Sheet** (1 page)
- **Bid Bond** (2 pages)
- **Supplemental General Conditions Forms:**
 - **SGC-8: DBE Compliance Form** (1 page, plus required documentation listed on page SGC-9)
 - **SGC-10-11: DBE Subcontractor Participation Form** (2 pages)
 - **SGC-12-13: DBE Subcontractor Performance Form** (2 pages)
 - **SGC-14-15: DBE Subcontractor Utilization Form** (2 pages)
 - **SGC-21: Changes to Approved DBE Compliance Form** (1 page)
 - **SGC-22: EEO Certification Form** (1 page)
 - **SGC-23: Debarred Firms Certification** (1 page)

If the percentage of work for this contract to be awarded to DBEs is less than 15% of the contract total, then the following shall be included:

- **Affidavit of Contractor's Good Faith Effort to Meet Subcontractor / Vendor Diversity Goals** (and supporting documentation)

STATEMENT OF QUALIFICATIONS

The bidder's Statement of Qualifications shall be printed on 8.5-inch by 11-inch sheets, be divided by section, and include a table of contents. Statements of Qualifications should be a straightforward delineation of the Prime Contractor's capability to satisfy the requirements of the project/contract. An officer authorized to make a binding commitment on behalf of the Prime Contractor shall sign the Statement of Qualifications.

A. Letter of Interest

The letter of interest shall be addressed to:

Director, Board of Water and Sewer Commissioners of the City of Mobile, AL
ATTN: Doug Cote, Water & Sewer Assistant Director – Operations
4725A Moffett Rd
Mobile, AL 36618-0249

The letter shall contain the following:

- The primary contact for the Prime Contractor and that person's title, address, phone number, and email address.
- An acknowledgement that the Prime Contractor has reviewed this Invitation for Bids as well as any and all amendments issued.
- An introduction to the Prime Contractor's project team. This shall list the subcontractors, suppliers, and other service providers who the Prime Contractor will utilize for completing the work of this project. The DBE status (i.e., MBE or WBE) of each shall be indicated.
- A general statement of prior experience performing similar projects.
- A statement that the Prime Contractor is not in arrears in the payment of any obligation due and owed to the State of Alabama, including but not limited to tax payments and employee benefits, and that it shall not become so during the term of the agreement if selected.
- Any other relevant information that is not captured elsewhere in the bid proposal submittal.

B. Qualifications

The bidder's Statement of Qualifications shall identify who will be responsible for each of the following and include resumes demonstrating their qualifications.

- Prime Contractor:
 - Prime Contractor
 - Project Manager
 - Project Superintendent

Qualifications for the Prime Contractor that must be demonstrated in the bidder's statement of qualifications are:

- The bidder shall be licensed as a General Contractor by the Alabama State Licensing Board.
- The bidder must have 10 years' continuous experience immediately preceding the submission of the bid performing work of similar scope and complexity.
- The bidder's project manager and project superintendent must have the knowledge, training, and experience to complete the work of this project/contract. Both the project manager and project superintendent must have a minimum of 5 years' continuous experience immediately preceding the submission of the bid performing work of similar scope and complexity.
- The bidder must furnish proof that it owns, or has in its possession and control, appropriate and sufficient equipment to properly perform all work required under this contract.

The resumes shall succinctly demonstrate that the suppliers of the drainage systems and the key personnel are capable of designing, manufacturing, and placing into service the components described in this Invitation for Bid (complete in place and ready for service). Specific qualifications that must be demonstrated in the bidder's Statement for Qualifications are:

- The supplier shall be capable of complying with the requirement that all of the iron and steel products used in the project are produced in the United States (commonly referred to as "American Iron and Steel"), as specified in the Supplemental General Conditions for SRF Assisted Public Drinking Water and Wastewater Facilities Construction Contract. The Prime Contractor shall be responsible for complying with all recordkeeping and reporting requirements
- The supplier shall have an emergency response time ability of less than 4 hours.

The Owner and Engineer will review bidders' Statement of Qualifications to assess whether the bidders comply with the requirements. The Owner and Engineer reserve the right to contact bidders to request clarification or additional information or to arrange other follow-up activities. The Owner and Engineer reserves the right to reject any and all proposals, to waive technical errors, and/or abandon this process if, in their judgment, the best interests of the Board of Water and Sewer Commissioners and MAWSS will thereby be promoted.

PROPOSAL

**TO: BOARD OF WATER AND SEWER COMMISSIONERS
CITY OF MOBILE, ALABAMA**

Submitted: _____
(Date)

The undersigned, as Bidder, hereby declares that he has examined the site of the Work and informed himself fully in regard to all conditions pertaining to the place where the Work is to be done; that he has examined the Plans and Specifications for the Work and all Contract Documents relative thereto, and has read the Board's Standard Specifications and all General Conditions and Special Provisions furnished; and that he has satisfied himself relative to the Work to be performed.

The Bidder proposes and agrees, if this Proposal is accepted, to contract with the Board of Water and Sewer Commissioners of the City of Mobile, Alabama, in the form of contract specified to furnish all materials, equipment, machinery, tools, apparatus, means of transportation, and labor necessary to complete the following Work:

BIG CREEK LAKE DAM TOE BERM

PROJECT NO.: 175578363

in full and complete accordance with the shown, noted, described, and reasonably intended requirements of the Plans, Specifications and all other Contract Documents to the full and entire satisfaction of the Board of Water and Sewer Commissioners of the City of Mobile, Alabama with a definite understanding that no money will be allowed for extra work except as set forth in the attached General Conditions and other Contract Documents for the lump sum or unit prices listed opposite each item.

It is agreed that the description under each item, being briefly stated, implies, although it does not mention, all incidentals and that the prices stated are intended to cover all such work, materials and incidentals as constitute Bidder's obligations as described in the Specifications and any details not specifically mentioned, but evidently included in the Contract shall be compensated for the item in which it most logically is included.

The quantities for bid items listed on the Proposal sheet are estimated quantities only for the purpose of comparing bids. Any differences between these estimated quantities and actual quantities required for this Contract shall not be taken as a basis for claims by the Contractor for extra compensation. Compensation will be based on the lump sum or unit prices and actual construction quantities.

The Bidder further proposes and agrees hereby to commence the Work with an adequate force, plant, and equipment at the time stated in the notice to the Contractor from the Engineers to proceed, and fully complete performance within 245 consecutive calendar days from and after the date stated in said notice.

The undersigned further agrees that, in case of failure on his part to execute the said Contract and the bond within 10 consecutive calendar days after written notice being given of the award of the Contract, the check or bid bond in the amount of 5 percent of this bid accompanying this bid, and the monies payable thereon, shall be paid into the funds of the Board of Water and Sewer Commissioners of the City of Mobile, Alabama as liquidated damages for such failure; otherwise the check or bid bond accompanying this Proposal shall be returned to the undersigned:

Attached hereto is a certified check on the _____
_____ Bank of _____
or a Bid Bond for the sum of _____
_____ Dollars (\$_____)

made payable to the Board of Water and Sewer Commissioners of the City of Mobile, Alabama.

By _____
(Legal Signature)

(Printed Name and Title)

Witness: _____
(Legal Signature)

Witness: _____
(Legal Signature)

ADDRESS:

CONTRACTOR'S LICENSE NO:

BIDDER acknowledges receipt of the following ADDENDA:

PROPOSED SUBCONTRACTING PLAN

SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses may be awarded subcontracts for the following portions of the Work in the event that the Bidder is awarded the Contract (use additional sheets, if required):

Mechanical

Name

Street City

Instrumentation and Control (Shall be Agent and/or representative of the computer system supplier, requires total system responsibility for control devices and system)

Name

Street City

Electrical

Name

Street City

Others

Name

Street City

Name

Street City

Name

Street City

SUBCONTRACTING PLAN

In order for your proposal to be considered, you, as Bidder, must complete all blanks in this Subcontracting Plan and sign with a handwritten signature where indicated below.

Failure to fill in the blanks on this Subcontracting Plan and/or to include a handwritten signature will be cause for rejection of your bid.

It is MAWSS's goal that in all contracts, contractors shall make a demonstrated good faith effort to award 15% of the contract amount to certified Disadvantaged Business Entities [DBE's] / Diverse Suppliers as subcontractors and/or suppliers performing commercially useful functions which are consistent with contract requirements.

Copies of MAWSS DBE Policy 16-01 [for public works projects], DBE/Supplier Diversity Policy 17-01 [for contracts for other goods and services], MAWSS's list of certified Disadvantaged Business Enterprises [DBE's] / Diverse Suppliers, and lists of organizations that have information on DBE's / Diverse Suppliers are available from MAWSS's Supplier Diversity Office (251- 694-3194) or from the MAWSS website, www.mawss.com.

PLEASE STATE WHAT PERCENTAGE OF THE WORK FOR THIS CONTRACT YOU PLAN TO AWARD TO DBE/DIVERSE SUPPLIER SUBCONTRACTORS AND/OR VENDORS:	(Total %) _____
ESTIMATED TOTAL DOLLAR AMOUNT TO BE AWARDED TO DBE/DIVERSE SUPPLIER:	(Total \$) _____
AMOUNT BID FOR THIS CONTRACT:	(Total \$) _____

If the above percentage is zero or is less than 15%, be sure to include your Affidavit of Contractor's Good Faith Efforts to Meet Subcontractor / Vendor Diversity Goals and all supporting documentation in your bid package.

Please list below all subcontractors and suppliers which you plan to use for this contract. Also indicate which of these are DBE's / Diverse Supplier by writing "yes" or "no" where indicated. Also list for each the percentage of the total contract amount to be performed by each and the certification group the DBE / Diverse Supplier is certified with. Attach additional sheets if needed. [If you are not using any subcontractors or vendors, you will need to write "zero" below and sign the form.]

SUBCONTRACTOR/ VENDOR NAME	DBE / Diverse Supplier? Yes or No SRMSDC, BCIA)	% OF CONTRACT AMT.	CERTIFICATION GROUP (MAWSS, ALDOT, ADECA,
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

CAUTION: ACCURATELY COMPLETE ALL PARTS OF THIS FORM AND SIGN BELOW:

WE WILL EXERCISE GOOD FAITH TO COMPLY WITH THIS PLAN AND MAWSS'S DBE REQUIREMENTS.

BIDDER

By: _____

Failure to affix a handwritten signature at the end of the following notification may be cause for rejection of bid.

SSO AND UNPERMITTED DISCHARGE PREVENTION NOTIFICATION:

Sanitary Sewer Overflows (SSOs) and unpermitted discharges of wastewater to the environment are a violation of Federal and State laws, as well as a breach of this Contract. The Contractor and associated subcontractors, vendors, and other entities and persons chosen to complete this Work shall not, through act or omission, discharge untreated wastewater to the environment or cause wastewater to back up into a building. The Contractor hereby agrees to indemnify the Owner if the Owner is assessed penalties or fines, receives regulatory actions, or has claims, actions, or suits filed against it by any person or entity as a result of SSOs or unpermitted discharges caused by act or omission of the Contractor and/or any entity or person performing Work in the Contractor's behalf under this Contract. The Contractor shall reimburse the Owner for all damages, losses, penalties, fines, judgments, interest, costs, and expenses of every nature incurred by the Owner, including but not limited to reasonable attorney's fees, arising from or associated with each SSO or unpermitted discharge. In addition, the Contractor shall pay the following penalties to the Owner for SSOs and unpermitted discharges caused by the Contractor or any entity or person performing Work in the Contractor's behalf, regardless of whether such SSOs or discharges reach waters of the State.

<u>Estimated Volume Spilled</u>	<u>Penalty Amount</u>
0 to 10,000 gallons	\$1,000
10,001 to 25,000 gallons	\$2,000
25,001 to 50,000 gallons	\$2,500
50,001 to 150,000 gallons	\$3,000
More than 150,000 gallons	\$6,000

I, having authority to execute this document, have reviewed the above Notification, therein.

Contractor Name

Street

City

Signature



Board of Water and Sewer Commissioners
Policy No.: UBE/DBE 16-01
Approved: December 5, 2016

DISADVANTAGED BUSINESS ENTERPRISE POLICY FOR PUBLIC WORKS ACT CONTRACTS

PURPOSE:

The purpose of this policy is to increase meaningful participation of Disadvantaged Business Enterprises in MAWSS contracts which are subject to the bidding requirements of the Public Works Act, to establish MAWSS's goals for DBE participation, and to set forth requirements for the MAWSS DBE Program.

SCOPE:

This policy will apply to all MAWSS publicly bid contracts for public works and the consultants who manage these contracts. If a contract is to be paid all or in part with non-MAWSS funds, and a funding entity has DBE program requirements that exceed or are more stringent than those of this Policy, then the additional DBE policy provisions of the funding entity or entities will also apply as contract requirements. Contracts for public works which do not meet the dollar threshold for public advertisement for bids will be subject to MAWSS's DBE Policy for Contracts for Goods, Services, and Small Public Works Projects.

In the event that MAWSS must enter into a contract for a public works project on an emergency basis, MAWSS will still seek competitive bids for the work and will declare the nature of the emergency in writing, in accordance with the Public Works Act. MAWSS reserves the right to waive or modify the requirements of this policy if the emergency is adversely affecting or presents an immediate threat to public health, safety, or the environment.

DEFINITIONS:

Contractor - An individual or business entity seeking to contract with MAWSS for a public works project and which will function in the role of general contractor for the project.

DBE - Disadvantaged Business Enterprise - A for profit small business concern for which socially and economically disadvantaged individuals own at least a 51 % interest and also control management and daily business operations, certified as such on one or more of the lists of DBE's referenced in this Policy.

MAWSS - Mobile Area Water and Sewer System.

Public Works Project - This will be as defined in §39-2-1, Code of Alabama, (1975), as amended.

Subcontractor - For purposes of this Policy, a subcontractor means an individual or business entity which subcontracts with the general contractor to perform work or services for a public works project.

Supplier - For purposes of this Policy, an individual or business entity who enters into a contract with a general contractor to provide materials, equipment, or other products or items for a project.

Supplies - For purposes of this Policy, this term may include materials, equipment, supplies, or other products or items for a project.

POLICY:

It is MAWSS policy that Disadvantaged Business Enterprises (DBE's) be given ample and fair opportunities to do business with MAWSS, either directly or indirectly, by ensuring that contractors who enter into publicly bid public works contracts with MAWSS make earnest and diligent efforts to include DBE's as subcontractors and suppliers. Contractors who wish to bid on a MAWSS public works project shall take all necessary and reasonable steps in accordance with this Policy to ensure that DBE's have the maximum allowable opportunity to compete for subcontracts and supplier contracts for the project.

This Policy shall be race and gender-neutral. Contractors shall not discriminate in awarding subcontracts and supplier contracts on the basis of race, color, national origin, ethnicity, or sex, during the bid process as well as during performance of a MAWSS public works contract.

It is MAWSS's goal that in contracts for public works, contractors shall make a demonstrated good faith effort to award fifteen percent (15%) of the contract amount to certified Disadvantaged Business Enterprises as subcontractors and/or suppliers performing commercially useful functions which are consistent with contract requirements. This percentage shall be considered a target which is subject to modifications and may be waived or adjusted by MAWSS if the contractor, after demonstrating a good faith effort, is unable to comply with the 15% goal. However, the requirement that a contractor demonstrate a good faith effort shall not be considered an informality subject to waiver, except in cases of emergency as noted above.

IMPLEMENTATION - THE MAWSS DBE PROGRAM:

A. Lists of Certified DBE's:

All contractors submitting bids for MAWSS public works contracts are required to utilize MAWSS's most recent list of certified DBE's in their efforts to meet their good faith DBE requirements. Bidders may also use the other lists specified below. If a bidder plans to use a DBE from one of the other lists, the bidder must notify MAWSS's DBE Office so that the DBE's certification can be verified.

MAWSS's list of certified DBE's includes a description of the areas for which each DBE can provide services or supplies. **Contractors are required to use DBE's only in the areas for which the DBE's are certified.**

DBE subcontractors and suppliers may be selected from the following lists:

- MAWSS List of Certified Disadvantaged Business Enterprises - www.mawss.com
- Alabama Department of Transportation Certified List - www.dot.state.al.us
- SRMSDC Certified List [Southern Region Minority Supplier Development Council] www.srmsdc.org
- ADECA Certified List [Alabama Department of Economic and Community Affairs] www.adeca.alabama.gov
- BCIA Certified List [Birmingham Construction Industry Authority] www.bcial.org

A contractor may also contact MAWSS's DBE Office if the contractor knows of a DBE who would like to be added to the MAWSS certified list in order to qualify as a subcontractor or a supplier. The MAWSS DBE Office will work with the contractor and the DBE to determine if the DBE meets certification requirements.

The current listings of DBE's certified by MAWSS are available on MAWSS's website: www.mawss.com or by contacting MAWSS's DBE Office at (251) 694-3194.

B. DBE Requirements:

Contractors who wish to enter into a public works contract with MAWSS must make good faith efforts to comply with MAWSS's goals for DBE participation by learning about, contacting, and negotiating with potential DBE's who are able and available to provide work or supplies for the project.

In addition to obtaining lists of certified DBE's, Contractors will contact organizations which provide assistance to DBE's and obtain contact information for DBE's available to provide services and materials. A list of such organizations is available from the MAWSS DBE Office.

Contractors will then contact certified DBE's to obtain prices and other information necessary for the contractor to evaluate the possibility of participation by DBE's.

Contractors bidding on MAWSS public works projects must list all DBE subcontractors and suppliers on the **Subcontracting Plan form** submitted in the bid package and sign the form. When preparing a bid, the bidding contractor must obtain firm prices from all DBE's. The bid package must include correspondence from each DBE subcontractor/supplier on the DBE's letterhead in which the DBE confirms negotiated terms for the subcontract or supply contract, including compensation and a brief description of the scope of work or the items to be supplied.

If a contractor bidding for a MAWSS contract is unable to meet the 15% goal for DBE participation for the project, the contractor must note this on the Subcontracting Plan form, state what percentage of the goal was achieved, if any, and sign the form. The contractor must also submit an **Affidavit of Contractor's Good Faith Efforts to Meet DBE Goals** with the bid package setting forth the reasons the goal could not be achieved for this project. The Affidavit must include names, addresses, and contact information for each DBE contacted, a description of information provided to each, and a statement regarding each as to why an agreement for a subcontract or supply contract was not reached. The Affidavit must include description of the good faith efforts made to obtain DBE participation, referencing the factors listed below. Documentation supporting the statements in the Affidavit must be attached thereto.

C. Demonstrating good faith efforts to meet MAWSS's DBE goals for a public works contract:

When bids are received for a public works contract, MAWSS's DBE Office will review the submittals relative to DBE Program requirements. **To determine if a bidder has demonstrated a good faith effort to reach**

MAWSS's DBE participation goal, the MAWSS DBE Office will review and consider bidder's submitted documentation as to the following factors:

- Did the bidder obtain the MAWSS List of Certified DBE entities? What other lists of certified DBE's did the bidder use, if any?
- Did the bidder use the services of available community organizations, small and/or disadvantaged business groups, local, state, and federal small or disadvantaged business assistance offices, and other organizations which provide assistance in recruitment and placement of DBE's, to obtain information and contact information for DBE's who might be able to perform work or furnish supplies for the project?
- Did the bidder attend pre-bid meetings scheduled by MAWSS to which DBE's were also invited, to inform DBE's of opportunities to provide services or supplies for the project?
- Did the bidder advertise in general circulation media and trade association publications concerning DBE opportunities for the project and give potential subcontractors and suppliers reasonable time to respond and negotiate?
- Did the bidder provide written notice to a reasonable number of DBE firms and allow them sufficient time to respond and negotiate?
- Was the information provided by the bidder to potential DBE subcontractors and suppliers adequate to apprise them of the plans, specifications, and requirements for the project?
- If the bidder received initial solicitations from interested DBE's, did the bidder follow up by contacting the DBE's again to determine if the DBE's were interested in subcontracting or furnishing supplies for the project?
- What efforts did the bidder make to determine whether the project specifications, drawings, and other documents presented opportunities for participation by DBE's? Did the bidder select certain portions of the work as suitable for performance by DBE subcontractors, or break down the work into smaller parts in order to allow participation by DBE's?
- For any DBE determined by the bidder to be unqualified or unable to participate, did the bidder offer a reasonable justification for the bidder's decision not to utilize that DBE?
- If the bidder contacted the MAWSS DBE Office requesting that potential subcontractors or suppliers be considered for addition to the MAWSS certification list, this should also be documented and will be considered by MAWSS.

The foregoing list is not exclusive. Other efforts to comply may be documented by a bidder for consideration by MAWSS.

Bidders are expected to submit complete information in compliance with the DBE Program at the time of bidding. However, bidders will be allowed to submit additional or clarifying documentation upon request of the MAWSS's DBE Office.

Contractors are hereby notified that bids which do not comply with MAWSS's DBE Policy and Program requirements may be rejected as non-responsive.

D. Continuing compliance with the MAWSS DBE Program during performance of contract:

MAWSS's DBE Office will monitor continuing compliance with the DBE Program requirements as contracts are performed.

If a subcontract or supply contract with a DBE is terminated prior to its termination date, the contractor must notify MAWSS's DBE Office. This notification must include the reasons for the early termination as well as a description of efforts made by the contractor to engage another certified DBE as a replacement subcontractor or supplier.

The contractor must file a written report with MAWSS's DBE Office once a month documenting the contractor's continuing compliance with the DBE Program. This report will list all DBE subcontractors and suppliers currently performing work or providing supplies for the project.

Information and data requested by the DBE Office regarding compliance with the DBE Program must be promptly provided by the contractor. Contractors shall make available to MAWSS's DBE Office all records pertaining to use of DBE subcontractors and suppliers.

MAWSS reserves the right to make site visits to project locations to confirm compliance with DBE Program requirements.

A contractor's failure to comply with this policy and MAWSS's DBE program requirements during performance of a contract may be considered a breach of the contract and may result in its termination.

By entering into a contract with MAWSS, a contractor acknowledges and agrees that failure to comply with MAWSS's DBE Program requirements relative to that contract shall be grounds for its termination by MAWSS.

Failure by a contractor performing a public works project for MAWSS to comply with the DBE Program requirements may result in that contractor being determined "not a responsible bidder" in bids for future MAWSS contracts.

Contractors must maintain for three (3) years such records as are necessary to determine compliance with MAWSS's DBE policy.

E. MAWSS tracking of DBE Program Achievements:

MAWSS's DBE Coordinator will report to the MAWSS Board semi-annually, in January and in July of each year, on DBE utilization and on other efforts by MAWSS's DBE Office to enhance DBE participation in MAWSS's public works contracts.

MAWSS may also contract for Disparity Studies as determined by the Board, to provide further information to enhance MAWSS's DBE Program.

Change of Sub-Contractor Form

In accordance with MAWSS DBE 16-01

JOB NAME _____ Location _____

Name of General Contractor _____

Name of Original Sub-Contractor _____

Name of New Sub-Contractor _____

Reason for Change _____

This instrument is for the purpose of advising all persons involved of a change being made on the contract and job-site.

General Contractor

DBE Office

Asst. Director

**BIG CREEK LAKE DAM TOE BERM
CONTRACT NO. 175578363
Proposal Sheet**

BASE BID ITEMS

Item No.	Item Description	Unit	Unit Price	Quantity	Total Amount
BI001	Mobilization and Demobilization	LS	--	1	
BI002	General Conditions	LS	--	1	
BI003	Erosion Control	Total	--	--	
	Silt Fence	LF			
	Straw bales	LF			
	Turbidity Curtains 10ft depth x 80ft length	EA			
	Construction Entrance Aggregate	CY			
	Construction Entrance Geotextile	SY			
BI004	BI004 - Site Clearing and Demolition	Total	--	--	
	Topsail stripping/stockpile	CY			
	Clearing and Grubbing wooded area	AC			
	Excavate access road	CY			
	Excavate existing terracotta piping	CY			
BI005	Earthwork	Total	--	--	
	Borrow Sand	CY			
	No. 89 aggregate	CY			
	No. 4 aggregate	CY			
	Gabion Stone	CY			
	Crusher Run	CY			
BI006	Subsurface and Surface Drainage Improvements	Total	--	--	
	Nyloplast Drain Basin (8" HDPE)	EA			
	Precast Concrete Headwall (8" HDPE) Terac. Drains	EA			
	Precast Concrete Headwall (12" HDPE)	EA			
	Precast Concrete Headwall (24" HDPE)	EA			
	CPP (8") Corrugated Plastic Pipe	LF			
	HDPE pipe (8") ADS N-12	LF			
	HDPE pipe (6") ADS N-12	LF			
	HDPE pipe (12") ADS N-12	LF			
	HDPE pipe (24") ADS N-12	LF			
	CMP (28") Corrugated Metal Pipe	LF			
BI007	Flume Box Relocation and Concrete Pad Construction	Total	--	--	
	Concrete	CY			
BI008	Site/Surface Restoration	Total	--	--	
	Topsoil	CY			
BI009	Downstream Ditches	Total	--	--	
	Downstream Ditch No. 1		--	--	
	Excavate Ditch and Transport Excavated Materials	CY			
	Borrow Sand	CY			
	No. 89 aggregate	CY			
	No. 4 aggregate	CY			
	Gabion Stone	CY			
	Downstream Ditch No. 2		--	--	
	Excavate Ditch and Transport Excavated Materials	CY			
	Borrow Sand	CY			
	No. 89 aggregate	CY			
	No. 4 aggregate	CY			
	Gabion Stone	CY			
BI010	Construction Contingency	LS	\$355,500	1	\$355,500

TOTAL BASE BID AMOUNT \$ _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____

(Name of
Bidder)

_____, as Principal,
(Address)

and _____

(Name of
Surety)

of _____, as Surety,
(Address)

jointly and severally, hereby bind us, our heirs, executors, administrators, successors, and assigns to the **Board of Water and Sewer Commissioners of the City of Mobile, Alabama**, as the Owner, in the **PENAL SUM of at least five percent (5%) of the amount of the bid amount, but in no event more than ten thousand dollars (\$10,000.00).**

THE CONDITION OF THIS OBLIGATION is that the Principal has submitted to the Owner the attached bid, which is incorporated herein by reference, for the Project identified as:

Big Creek Lake Dam Toe Berm _____ Project No. 175578363

NOW, THEREFORE, if, within the terms of the Bid Documents, the Owner accepts the Principal's bid and the Principal thereafter either:

- (a) executes and delivers a Construction Contract with the required Contract and Labor and Material Bonds (each in the form contained in the Bid Documents and properly completed in accordance with the bid) and delivers evidence of insurance as prescribed in the Bid Documents, or
- (b) fails to execute and deliver such Construction Contract with such Bonds and evidence of insurance, but pays the Owner the difference, not to exceed the Penal Sum of this Bond, between the amount of the Principal's Bid and the larger amount for which the Owner may award a Construction Contract for the same Work to another bidder,

then, this obligation shall be null and void, otherwise it shall remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligation of the Surety under this Bond shall not in any manner be impaired or affected by any extension of the time within which the Owner may accept the Principal's bid, and the Surety does hereby waive notice of any such extension.

SIGNED AND SEALED this _____ day of _____, _____.

ATTEST:

ATTEST:

PRINCIPAL:

By _____

Name and Title

SURETY:

By _____

Name and Title

CONTRACT

THIS CONTRACT is made and entered into the _____ day of 20____, by
and between _____,
(Contractor)

hereinafter "Contractor," and the Board of Water and Sewer Commissioners of the City of Mobile, Alabama, hereinafter "Owner."

WITNESSETH:

The Contractor, for the consideration hereinafter fully set out hereby agrees with the Owner, as follows:

1. The Contractor shall furnish all materials and perform all Work as set forth in the following Contract Documents: Invitation for Bids, and any Addenda thereto; Proposal and all Documents submitted therewith; Standard Specifications of the Board of Water and Sewer Commissioners of the City of Mobile, Alabama; any Specifications of the Owner provide with the Invitation for Bids which are specific to this Contract; General Conditions; Special Provisions; Detailed Specifications; this Contract form; Bonds; Drawings and Addenda; all of which are attached hereto and made a part of the parties' Contract, as if fully set forth herein:

PROJECT NO. _____

2. The Contractor shall commence performance of this Contract on a date to be specified in a written order of the Owner, and shall fully complete all Work hereunder within 245 consecutive calendar days from and after said date. "Work" shall include all construction, delivery of materials and items, and other obligations of the Contractor under this Contract.
3. The Owner hereby agrees to pay to the Contractor for the faithful performance of the Contract, subject to additions and deductions as provided in the Specifications or Proposal, in lawful money of the United States as follows:

Approximately _____ Dollars (\$ _____),
in accordance with lump sum and unit prices set forth in the Proposal.

4. The Owner shall make monthly partial payments to the Contractor on the basis of a duly certified and approved estimate of Work performed during the preceding calendar month by the Contractor. The Owner may retain five percent (5%) of the amount of such estimate until fifty percent (50%) of the Work has been completed. The Owner may hold this retainage until all Work has been performed strictly in accordance with this Contract and until all Work has been accepted by the Owner, and all obligations of the Contractor under this Contract have been satisfied.
5. Upon submission by the Contractor of evidence satisfactory to the Owner that all payrolls, material bills, and other costs incurred by the Contractor in connection with the performance of this Contract have been paid in full, and upon satisfaction by the Contractor of all other obligations under this Contract, final payment on account of this Contract shall be made within thirty days (30) after the completion by the Contractor of all Work covered by this Contract and the acceptance thereof by the Owner.
6. The parties hereto acknowledge and agree that time is of the essence for performance of this Contract. The parties agree that in the event the Work is not completed within the time herein specified, the Owner may retain from the compensation otherwise to be paid to the Contractor the sum of \$1,000 per day for each day thereafter, Sundays and holidays included, that the Work remains uncompleted. The parties agree that this dollar amount represents their agreed upon stipulation as to the damages which the Owner will have sustained per day due to the failure of the Contractor to complete the Work within the time stipulated, and that this amount is not a penalty.
7. Sanitary Sewer Overflows (SSOs) and unpermitted discharges of wastewater to the environment are a violation of Federal and State laws, as well as a breach of this Contract. The Contractor and associated subcontractors, vendors, and other entities and persons chosen to complete this Work shall not, through act or omission, discharge untreated wastewater to the environment or cause wastewater to back up into a building. The Contractor hereby agrees to indemnify the Owner if the Owner is assessed penalties or fines, receives regulatory actions, or has actions, suits, or claims filed against it by any person or entity as a result of SSOs or unpermitted discharges caused by act or omission of the Contractor and/or any entity or person performing work in the Contractor's behalf under this Contract. The Contractor shall reimburse the Owner for all damages, losses, penalties, fines, judgments, interest, costs, and expenses of every nature incurred by the Owner, including but not limited to reasonable attorney's fees, arising from or associated with each SSO or unpermitted discharge. In addition, the Contractor shall pay the penalties identified in the Contract Documents to the Owner for SSOs and unpermitted discharges caused by the Contractor and/or any entity or person performing Work in the Contractor's behalf, regardless of whether such SSOs or discharges reach waters of the State.

8. The parties hereto further agree hereto that if at any time after the execution of this Contract and the Contract Bond hereto attached for its faithful performance, the Owner shall deem the surety or sureties upon such bond to be unsatisfactory, or if, for any reason, such bond ceases to be adequate to cover the performance of the Work, the Contractor shall at its expense, within five (5) days after the receipt of notice from the Owner to do so, furnish an additional bond or bonds in such form and amount and with such surety or sureties as shall be satisfactory to the Owner. In such event, no further payment to the Contractor shall be due under this Contract until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the Owner.

IN WITNESS WHEREOF the representatives of the parties hereto have executed this Contract by signing below, with full authority as the act of each party, to be effective as of the day and date first above written in two (2) counterparts, each of which shall, without proof or accounting for the other counterpart, be deemed an original Contract.

**BOARD OF WATER AND SEWER
COMMISSIONERS OF THE CITY OF
MOBILE, ALABAMA**

ATTEST

By _____
(Legal Signature)

(Printed Name and Title)

By _____
(Legal Signature)

(Printed Name and Title)

CONTRACTOR: _____

By _____
(Legal Signature)

(Printed Name and Title)

(Legal Signature)

By _____
(Printed Name and Title)

(SEAL)

NOTARY ACKNOWLEDGEMENTS

STATE OF _____
COUNTY OF _____

Before me, the undersigned Notary Public in and for the above County and State, personally appeared _____, whose name as _____ for the above Owner is signed above, and who, after being by me first duly sworn, acknowledged before me that he/she signs this Contract with full authority as the act of the Owner.

Given under my hand and seal this ___ day of _____, 20___.

[Print Name]: _____

My Commission expires: _____

STATE OF _____
COUNTY OF _____

Before me, the undersigned Notary Public in and for the above County and State, personally appeared _____, whose name as _____ for the above Contractor is signed above, and who, after being by me first duly sworn, acknowledged before me that he/she signs this Contract with full authority as the act of the Contractor.

Given under my hand and seal this ___ day of _____, 20___.

[Print Name]: _____

My Commission expires: _____

CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS that we _____

(hereinafter the
"Principal")

and _____

(hereinafter the "Surety")

are held and firmly bound unto the Board of Water and Sewer Commissioners of the City of Mobile, Alabama (hereinafter the "Board") in the penal sum of _____

_____ Dollars (\$_____)

for the faithful performance of a certain written Contract dated the ___ day of _____, 20_____, entered into between the Principal and the Board, for the following construction project or other work (hereinafter the "Contract"):

PROJECT NO. _____

a copy of which said Contract is incorporated herein by reference and made a part hereof as if fully set out.

NOW THEREFORE, this Bond and all obligations hereof shall remain in full force and effect until all covenants, terms, and conditions of the Contract for the work referenced above have been fully performed. The conditions of this Bond and its obligations are further described as follows:

The Principal shall faithfully perform all terms and conditions of the Contract and shall fully pay all obligations incurred in connection therewith. The Principal shall honor all obligations of every nature relative to the Contract.

The Principal shall save the Board harmless from any and all liability of every nature, kind, and character which may be incurred in connection with the performance or fulfillment of the Contract and from any and all other such liability resulting from negligence or otherwise on the part of the Principal and/or any entity performing work or providing materials on the Principal's behalf for the Contract. The Principal shall further save the Board harmless from all costs and damages which may be suffered by reason of the failure to fully and completely perform said Contract. The Principal shall fully reimburse and repay the Board for all expenditures of every kind and description which may be incurred by the Board in making good any and every default which may exist on the part of the Principal in connection with the performance of said Contract. The Principal shall pay all lawful claims of persons, firms, partnerships, corporations, and other entities for all labor performed and material furnished in connection with the performance of the Contract. Failure to pay any such claims of persons, firms, partnerships, or corporations shall give them a direct right of action against the Principal and Surety under this obligation.

Any alterations or additions which may be made under the Contract or in the Work to be done under it, or the giving by the Board of any extensions of time for the performance of the Contract, or any other forbearance on the part of either the Board or the Principal shall not, in any way, release the Principal and Surety, or either of them, their heirs, executors, administrators, successors, or assigns for their liability hereunder, notice to the Surety of any such alteration, extension, or forbearance being expressly waived.

All obligations of this Bond shall remain in full force and effect until the performance of all covenants, terms, and conditions herein stipulated, and after such performance in full, it shall become null and void.

IN TESTIMONY WHEREOF witness the hands and seal of the parties hereto on this ____ day of _____, 20__.

Executed in two (2) counterparts.

By _____
(Principal)

Witness: _____
(Legal Signature)

(Printed Name and Title)

By _____
(Surety)

Witness: _____
(Legal Signature)

(Printed Name and Title)

By _____
(Resident Agent)

(Printed Name and Title)

LABOR AND MATERIAL BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____, as Principal, and _____, as Surety, are held and firmly bound unto the Board of Water and Sewer Commissioners of the city of Mobile, Alabama, hereafter called the "Obligee", in the penal sum of _____ Dollars (\$_____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has entered into a certain Contract with said Obligee, dated _____, 20__, (hereinafter called the "Contract") for the construction of:

PROJECT NO. _____

which Contract and the Specifications for said Work shall be deemed a part hereof as fully as if set out herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal and all subcontractors to whom any portion of work provided for in said Contract is sublet and all assignees of said Principal and of such subcontractors, shall promptly make payments to all persons supplying him or them with labor, materials, feed-stuffs or supplies for or in the prosecution of the Work provided for in such Contract, or in any amendment or extension of or additions to said Contract, and for the payment of reasonable attorney's fees, incurred by the claimant or claimants in suits on each bond, then the above obligations shall be void; otherwise to remain in full force and effect. PROVIDED, however that this bond is subject to the following conditions and limitations.

- (a) Any person, firm or corporation that has furnished labor, materials, feed-stuffs, or supplies for or in the prosecution of the Work provided for in said Contract shall have a direct right of action against the Principal and Surety on this bond, which right of action shall be asserted in a proceeding instituted in the County in which the Work provided for in said Contract.

LABOR AND MATERIAL BOND

PAGE 3

is to be performed or in any county in which said Principal and Surety does business. Such right of action shall be asserted in a proceeding instituted in the name of the claimant or claimants for his or their use and benefit against said Principal and Surety or either of them (but not later than one year after the final settlement, including warranties, of said Contract) in which action such claim or claims shall be adjudicated and judgment rendered thereon.

(b) The Principal and Surety hereby designate and appoint

(Chief Executive Officer of Surety Company)

as the agent of each of them to receive and accept service of process or other pleading issued or filed in any proceeding instituted on this bond and hereby consent that such service shall be the same as personal service on the Principal and/or Surety.

- (c) The Surety shall not be liable hereunder for damage or compensation recoverable under any Workmen's Compensation or Employer's Liability Statute.
- (d) In no event shall the Surety be liable for a greater sum than the obligation of this bond, or subject to any suit, action or proceeding thereon that is instituted later than one year after the final settlement, including warranties, of said Contract.
- (e) This bond is given pursuant to the terms of Act No. 39, General Laws of Alabama, approved February 8, 1935, entitled "An Act to Further Provide for Bonds of Contractors on State and Other Public Works and Suits Thereon."

**LABOR AND MATERIAL BOND
PAGE 4**

Executed in two (2) counterparts.

SIGNED, SEALED AND DELIVERED THIS _____ day of _____, 20_____.

By _____
(Principal) (Seal)

Witness: _____
(Legal Signature) (Printed Name and Title)

By _____
(Surety)

Witness: _____
(Legal Signature) (Printed Name and Title)

By _____
(Resident Agent)

(Printed Name and Title)

State of Alabama
Alabama Department of Environmental Management
State Revolving Fund (SRF) Loan Program



SRF Section
Permits and Services Division
Alabama Department of Environmental Management
Post Office Box 301463
Montgomery, Alabama 36130-1463

(334) 271-7793
(334) 271-7950 FAX

Supplemental General Conditions
for BIL Assisted

Public Drinking Water and Wastewater
Facilities Construction Contracts



SRF Project Number: _____

Table of Contents:

I	ADEM Special Conditions.....	SGC-3
II	Bonds and Insurance.....	SGC-3
III	Utilization of Disadvantaged Business Enterprises (DBEs)	SGC-3
IV	Six Affirmative Steps for Good Faith DBE Solicitation	SGC-4
V	Documentation Required from Loan Recipient and Contractor	SGC-5
VI	Resources for Identifying DBE Contractors/Subcontractors.....	SGC-7
VII	DBE Compliance Form.....	SGC-8
VIII	EPA Form 6100-2 DBE Subcontractor Participation Form.....	SGC-10
IX	EPA Form 6100-3 DBE Subcontractor Performance Form.....	SGC-12
X	EPA Form 6100-4 DBE Subcontractor Utilization Form.....	SGC-14
XI	EPA Form 5700-52 A MBE/WBE Utilization Reports.....	SGC-16
XII	Changes to Approved DBE Compliance Form.....	SGC-23
XIII	Certification Regarding Equal Employment Opportunity.....	SGC-24
XIV	Debarred Firms Certification.....	SGC-25
XV	Davis-Bacon and Related Acts.....	SGC-26
XVI	American Iron and Steel.....	SGC-35
XVII	Build America Buy America(BABA) Requirement.....	SGC-36
XVIII	Project Sign Detail - CWSRF.....	SGC-37
XIX	Project Sign Detail - DWSRF.....	SGC-38
XX	Construction Contract Requirements.....	SGC-39
XXI	Project Review and Cost Summary.....	SGC-40

I – ADEM Special Conditions

1. Construction within State rights-of-way shall be in accordance with the Alabama Department of Transportation policies and procedures.
2. Construction is to be carried out in compliance with applicable NPDES permits and in a manner that prevents bypassing of raw wastewater flows during construction. If bypassing is anticipated, the ADEM NPDES Enforcement Branch (334-271-7975) shall be advised in advance and the contractor shall take all necessary steps to minimize the impacts of bypassing.
3. Siltation and soil erosion shall be minimized during construction. The contractor shall obtain an NPDES storm water permit for construction if required.
4. The owner shall provide and maintain competent and adequate supervision and inspection.
5. ADEM and EPA shall have access to the site and the project work at all times.
6. These Special Conditions shall supersede any conflicting provisions of this contract.
7. **A project sign is required.** See **Parts XVIII and XIX, pages SGC-37 – SGC-38**, for more information.

II – Bonds and Insurance

Bonding requirements shall comply with Alabama Act No. 97-225. Provisions of the Act are summarized below:

1. Bid Bond – Not less than 5% of either the owner’s estimated cost or of the proposed prime contractor’s bid up to a maximum of \$10,000. The bid guarantee shall consist of a cashier’s check drawn on an Alabama bank or a bid bond executed by a surety company duly authorized and qualified to make bonds in the State of Alabama.
2. Performance Bond – In an amount not less than 100% of the contract price.
3. Payment Bond – Payable to the awarding authority, shall be executed in an amount not less than 50% of the contract price.

In addition to the insurance requirements elsewhere in the specifications, the owner or the contractor, as appropriate, must acquire any flood insurance made available by the Federal Emergency Management Agency as required by 40 CFR 30.600 (b), if construction will take place in a flood hazard area identified by the Federal Emergency Management Agency.

III – Utilization of Disadvantaged Businesses Enterprises (DBEs)

It is the policy of the State Revolving Loan Fund (SRF) to promote a “fair share” of sub-agreement awards to **small, minority, and/or women-owned businesses** for equipment, supplies, construction, and services. Compliance with these contract provisions is required in order for project costs to be eligible for SRF funding. *The “fair share” objective is a goal, not a quota.* DBE (Disadvantaged Business Enterprise) is an all-inclusive business classification, which includes MBE (minority business enterprises and/or WBE (women business enterprises) and is used synonymously when these entities are referenced individually or collectively.

Failure on the part of the apparent successful bidder to submit required information to the Loan Recipient (Owner) may be considered (by the Loan Recipient (Owner)) in evaluating whether the bidder is responsive to the bid requirements. The project objectives for utilization of Minority Business Enterprises (MBEs) and Women's Business Enterprises (WBEs) are as follows:

Commodities (Supplies)	MBE 4%	WBE 11%
Contractual (Services)	MBE 8%	WBE 30%
Equipment	MBE 5%	WBE 20%
Construction	MBE 2.5%	WBE 3%

For purposes of clarification:

- This objective applies to any Federally assisted procurement agreement in excess of \$10,000.
- This objective necessitates three responsibilities; separate solicitations must be made of small and minority and women's business enterprises.
- A minority business is a business, at least 51 percent of which is owned and controlled by minority group members (Black; Hispanic; Asian American; American Indian; and, any other designations approved by the Office of Management and Budget).
- A women's business is a business, at least 51 percent of which is owned and controlled by one or more women.
- The control determination will revolve around the minority or woman owner's involvement in the day-to-day management of the business enterprise.
- Solicitation should allow adequate time for price analysis. ADEM recommends that contact be made no later than 15 days before bid opening.
- Efforts taken to comply with this objective must be documented in detail; maintain records of firms contacted, including any negotiation efforts to reach competitive price levels, and awards to the designated firms.
- ADEM recommends that the Loan Recipient (Owner) or proposed Prime Contractor utilizes the services of the Minority Business Development Service Centers. These Centers are funded by the U.S. Department of Commerce to provide technical, financial and contracting assistance to minority and women's business enterprises. These Centers are located in a number of Regional cities.
- Use of the services provided by these Centers does not absolve the Loan Recipient (Owner) or proposed Prime Contractor from pursuing additional efforts to meet this objective.

IV – Six Affirmative Steps for Good Faith DBE (MBE-WBE) Solicitation

The Loan Recipient (Owner) shall follow the six affirmative steps found in the SRF application when using loan funds to procure sources of supplies, construction and services.

If the successful bidder plans to subcontract a portion of the project, the bidder must submit to the owner within 10 days after bid opening, evidence of the affirmative steps taken to utilize small, minority and women's businesses. These six affirmative steps or 'good faith efforts' are required methods to ensure that DBEs have the opportunity to compete for procurements funded by EPA financial assistance dollars. Such affirmative steps are described as follows:

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. This will include placing DBEs on solicitation lists and soliciting them whenever there are potential sources.

2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitation for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. This will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the resources, services, and assistance of the AL Department of Transportation (ALDOT), Small Business Administration (SBA), and the Minority Business Development Agency of the Department of Commerce (MBDA).
6. If the Contractor awards subcontracts, it must take the steps described in items (1) through (5) listed above.

V – Documentation Required from Loan Recipient (Owner) and Contractor

The low, responsive, responsible bidder must forward the following items, in duplicate, to the loan recipient (owner) no later than 10 days after bid opening. The Loan Recipient (Owner) shall transmit one (1) copy of its DBE documentation of the prime contractor solicitation and one (1) copy of the prime contractor's/bidder's DBE documentation of all subcontractor solicitation to the SRF Section within 14 days after bid opening.

1. SRF project number and project name/loan name*. (*not contract name)
2. List of **all** subcontractors (**DBE and non-DBE**) with name, address, telephone number, estimated contract dollar amount and duration. If there are to be no subcontractors, please indicate such in a letter on company letterhead.
3. List of any subcontract work yet to be committed with estimate of dollar amount and duration of contract.
4. MBE-WBE (DBE) Documents - See **Part V, page SGC-6**.
5. Debarred Firms Certification – See **Part XIV, page SGC-25**.
6. Certification Regarding Equal Employment Opportunity – See **Part XIII, page SGC-24**.

The Loan Recipient (Owner) shall submit annual MBE/WBE Utilization Reports (EPA Form 5700-52A, **pages SGC-16 - SGC-17**) within 30 days of the end of the annual reporting period (**October 30th, i.e. by November 30th**). Submit reports directly to:

Diane Lockwood, DBE Coordinator
 Administrative Section
 Fiscal Branch
 Alabama Department of Environmental Management
 Post Office Box 301463
 Montgomery, Alabama 36130-1463

The proposed Prime Contractor must submit the following items to the Loan Recipient (Owner):

1) DBE Compliance Form. The Loan Recipient (Owner) must submit this information to the SRF Section to demonstrate compliance with the DBE requirements. ADEM's approval is required prior to award of the construction contract and commencement of any SRF-funded construction. **(Page SGC-8)**

2) Certification Regarding Equal Employment Opportunity. This form is required of the proposed prime contractor (re: all subcontracts executed) and should be submitted with the prime proposed contractor's MBE-WBE solicitation submittal to the Loan Recipient (Owner). **(Page SGC-24)**

3) Debarred Firms Certification. This form is required of the proposed prime contractor (re: all subcontracts executed) and should be submitted with the prime proposed contractor's MBE-WBE solicitation submittal to the Loan Recipient (Owner). **(Page SGC-25)**

4) EPA Form 6100-2 DBE Subcontractor Participation Form. This form gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from the proposed prime contractor, how much the DBE subcontractor was paid, and any other concerns the DBE subcontractor might have. The proposed prime contractor must provide this form to each DBE subcontractor for the DBE subcontractor's submittal to the SRF Section's MBE-WBE Compliance Staff (to be forwarded to EPA's DBE Coordinator). **(Page SGC-10)**

5) EPA Form 6100-3 DBE Subcontractor Performance Form. This form captures an intended DBE subcontractor's description of work to be performed for the proposed prime contractor and the price of the work. The proposed prime contractor must provide this form to each DBE subcontractor for the DBE subcontractor's submittal to the SRF Section's MBE-WBE Compliance Staff (to be forwarded to EPA's DBE Coordinator). **(Page SGC-12)**

6) EPA Form 6100-4 DBE Subcontractor Utilization Form. This form captures the proposed prime contractor's intended use of all identified DBE subcontractors and the estimated dollar amount of the work. The proposed prime contractor must provide this form to each DBE subcontractor for the DBE subcontractor's submittal to the SRF Section's MBE-WBE Compliance Staff (to be forwarded to EPA's DBE Coordinator). **(Page SGC-14)**

7) EPA Form 5700-52 A MBE/WBE Utilization Reports (DBE Annual Report), if applicable. The Loan Recipient (Owner) must submit this information to the SRF Section within 30 days of the end of the annual reporting period (October 30th), i.e., **by November 30th**. **(Pages SGC-16 - SGC-17)**

8) Changes to Approved DBE Compliance Form, if applicable. If any changes, substitutions, or additions are proposed to the subcontractors included in previous Department approvals, the Owner must submit this information to the Department for prior approval in order for the affected subcontract work to be eligible for SRF funding. **(Page SGC-23)**

9) Certified Payrolls. These should be submitted to the Loan Recipient (Owner), at least, monthly for the prime contractor and all subcontractors. The Loan Recipient (Owner) must maintain payroll records and make these available for inspection

Please note that DBEs, MBEs, and WBEs must be certified in writing by EPA, SBA, or DOT (or by state, local, Tribal, or private entities whose certification criteria match EPA's). Depending upon the certifying agency, a DBE may be classified as a Disadvantaged Business Enterprise (DBE), a Minority Business Enterprise (MBE), or a Women's Business Enterprise (WBE). Written certification as a DBE (MBE or WBE) is required in order to be counted toward the Loan Recipient/Owner's MBE-WBE accomplishments.

The documentation of these good faith solicitation efforts must be detailed in order to allow for satisfactory review. Such documentation might include fax confirmation sheets, copies of solicitation letters/emails, printouts of the online solicitations, printouts of online search results, affidavits of publication in newspapers, etc. The proposed prime contractor is strongly encouraged to follow up each written, fax, or email solicitation with, at least, 1 logged phone call.

The proposed prime contractor must employ the six affirmative steps to subcontract with DBEs, even if the proposed prime contractor has achieved its fair share objectives.

The prime contractor must employ the six affirmative steps to subcontract with DBEs, even if the proposed prime contractor has achieved its fair share objectives. If a DBE subcontractor fails to complete work under the subcontract for any reason, the proposed prime contractor must notify the Loan Recipient (Owner) in writing prior to any termination and must employ the six 'good faith efforts' described above if using a replacement subcontractor. Any proposed changes from an approved DBE subcontractor must be reported to the Loan Recipient (Owner) and to the SRF Section on the Changes to Approved Subcontractors Form prior to initiation of the action. EPA Forms Nos. 6100-3 and 6100-4 must also be submitted to the SRF Section for new DBE subcontracts.

-

VI – Resources for Identifying MBE-WBE (DBE) Contractors/Subcontractors

The following organizations may provide assistance in soliciting DBE participation:

City of Birmingham
Office of Economic
Development
ATTN: **Monique Shorts**,
Economic Specialist
710 20th Street North
Birmingham, Alabama
35203
Ph: (205) 254-2799
Fax: (205) 254-7741
Monique.shorts@birminghamal.gov

U.S. Small Business
Administration
<http://www.pro-net.sba.gov>

National Association
of Minority
Contractors (NAMC)
<https://namcatlanta.org/>

Alabama Department
of Transportation
ATTN: **John Huffman**
1409 Coliseum Boulevard
Montgomery, Alabama
36130
Ph: (334) 244-6261
<http://www.dot.state.al.us>

U.S. Department of
Commerce
Minority Business
Development Agency
ATTN: **Donna Ennis**
75 5th Street NW,
Suite 300
Atlanta, Georgia 30308
Ph: (404) 894-2096
<http://www.mbd.gov/>

Governor's Office of
Minority and Women's
Business Enterprises
Hilda Lockhart,
STEP Project Director
401 Adams Avenue
Suite 360
Montgomery, Alabama
36130
Ph: (334) 242-2220

Birmingham Construction
Industrial Authority ATTN:
Ashley Orl or **Kimberly
Bivins**
601 37th Street South
Birmingham, Alabama
35222
Ph: (205) 324-6202
aorl@bcia1.org
kbaylorbivins@bcia1.org

NOTE:

- (1) The Loan Recipient (Owner) and the proposed Prime Contractor shall use the necessary resources to identify and directly solicit no less than three (3) certified DBE/MBE/WBE companies to bid in each expected contract/subcontract area. If a diligent and documented search of ALDOT, SBA, and MBDA directories does not identify three (3) potential certified DBE/MBE/WBE firms, then the proposed Prime Contractor shall post an advertisement in, at least, one (1) of the other online or print resources. Whenever possible, post solicitation for bids or proposals should be posted/advertised for a minimum of 30 calendar days before the bid or proposal closing date.**
- (2) Expenditures to a DBE that acts merely as a broker or passive conduit of funds, without performing, managing, or supervising the work of its subcontract in a manner consistent with normal business practices may not be counted.**
- (3) The proposed Prime Contractor should attempt to identify and first solicit DBEs in the geographic proximity of the project before soliciting those located farther away.**
- (4) In addition, our SRF DBE Compliance Staff is readily available for assistance, as follows: Diane Lockwood (DBE Coordinator) at (334) 271-7815 or dpl@adem.alabama.gov.**

VII – DBE Compliance Form

NOTE: FOR DBE COMPLIANCE, ONE (1) COPY OF THIS FORM (WITH ALL INFORMATION OUTLINED) IS REQUIRED (WITH THE LOAN RECIPIENT (OWNER)'S DBE SUBMITTAL) FOR EACH PR&CS REVIEW. THE LOAN RECIPIENT (OWNER) AND PROPOSED PRIME CONTRACTOR SHOULD ENSURE THAT THIS INFORMATION IS COMPLETE PRIOR TO THE PR&CS SUBMITTAL TO THE SRF SECTION.

Loan Recipient: _____ SRF Loan (Project) Number: _____

CERTIFICATIONS:

I certify that the information submitted on and with this form is true and accurate and that this company has met and will continue to meet the conditions of this construction contract regarding DBE solicitation and utilization. I further certify that criteria used in selecting subcontractors and suppliers were applied equally to all potential participants and that EPA Forms 6100-2 and 6100-3 were distributed to all DBE subcontractors.

(Proposed Prime Contractor Signature) Date _____

(Printed Name and Title)

I certify that I have reviewed the information submitted on and with this form and that it meets the requirements of the Loan Recipient's/Owner's State Revolving Fund loan contract.

(Only ONE (1) signature required below.)**

(Signature of Loan Recipient (Owner)) Date _____

OR**

(Loan Recipient's (Owner's) Representative's Signature, (P.E.)) Date _____

(Printed Name and Title)

GENERAL INFORMATION:

Loan Recipient (Owner) Contact: _____

Loan Recipient (Owner) Phone Number/Email: _____

Consulting Engineer Contact: _____

Consulting Engineer Phone Number/Email: _____

Proposed Prime Contractor: _____

Proposed Prime Contractor Contact: _____

Proposed Prime Contractor Phone Number/Email: _____

Proposed Prime Contract Amount: \$ _____

Proposed Total DBE/MBE Participation: \$ _____ Percentage: _____ % Goal: 2.5%

Proposed Total WBE Participation: \$ _____ Percentage: _____ % Goal: 3.0%

Please ensure the following is submitted in the full DBE submittal (with the DBE COMPLIANCE FORM (page SGC-8)):

- (1) **List of all committed and uncommitted subcontractors** by trade, including company name, address, telephone number, contact person, dollar amount of subcontract, and DBE/MBE/WBE status. Indicate in writing if no solicitations were made because the contractor intends to use only its own forces to accomplish the work.
- (2) **Proof of certification (certificate or letter)** by EPA, SBA, DOT (or by state, local, Tribal, or private entities whose certification criteria match EPA's) for each subcontractor listed as a DBE, MBE, or WBE.
- (3) **Documentation of solicitation effort for prospective DBE firms**, such as fax confirmation sheets, copies of solicitation letters/emails, printout of the online solicitations, printouts of online search results, affidavits of publication in newspapers, etc. The prime contractor is strongly encouraged to follow up each written, fax, or email solicitation with at least 1 logged phone call. Whenever possible, post solicitation for bids or proposals should be for a minimum of 30 calendar days before the bid or proposal closing date.
- (4) **Justification for not selecting a certified DBE subcontractor** that submitted a low bid for any subcontract area.
- (5) **Certification By Proposed Prime Contractor or Subcontractor Regarding Equal Opportunity Employment. (Page SGC-24)**
- (6) **Debarred Firms Certification. (Page SGC-25)**
- (7) **EPA Form 6100-2 DBE Subcontractor Participation Form** for **each** proposed **certified** DBE subcontractor.* **(Page SGC-10)** (*This form is completed by the proposed prime contractor. It is signed by **each** proposed subcontractor **only**.)
- (8) **EPA Form 6100-3 DBE Subcontractor Performance Form** for each DBE subcontractor.** **(Page SGC-12)** (**This form is completed by the proposed prime contractor and signed by each proposed certified subcontractor and the proposed prime contractor per subcontract.)
- (9) **EPA Form 6100-4 DBE Subcontractor Utilization Form** to summarize all DBE subcontracts/subcontractors.*** **(Page SGC-14)** (***)This form is completed and signed by the proposed prime contractor **only**.)

NOTE:

ALL DBE contractors selected must have a current DBE certificate or letter of certification by an approved certifying agency.

Loan Recipient (Owner) DBE Submittal

At minimum, the Loan Recipient (Owner)'s DBE submittal should **always** consist of **a cover letter (preferred, but optional) and a VII - DBE Compliance Form (page SGC-8) and DBE solicitation documentation** (i.e., DBE solicitation list(s) with source(s) of list(s) clearly identified, contractor contact information and results/outcomes of each solicitation (or of the overall solicitation effort, if all results/outcomes were the same), documentation of solicitation method (i.e., copies of emails, phone logs, faxes, etc.).

Prime Contractor DBE Submittal

At minimum, the Prime Contractor's DBE submittal should **always** consist of **a cover letter (preferred, but optional) and DBE solicitation documentation** (i.e., DBE solicitation list(s) with source(s) of list(s) clearly identified, subcontractor contact information and results/outcomes of each solicitation (or of the overall solicitation effort, if all results/outcomes were the same), documentation of solicitation method (i.e., copies of emails, phone logs, faxes, etc.) **OR** a "No Subcontractors" Letter (*if none will be utilized*) **and** a List of **ALL (DBE/non-DBE) subcontractors contracted/yet to be contracted and ALL EPA 6100 Forms described above (DBE subcontractors selected or not) and** Certification Regarding Equal Employment Opportunity **and** Debarred Firms Certification.

VIII - EPA Form 6100-2 DBE Subcontractor Participation Form



OMB Control No: 2090-0030

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Participation Form

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE¹ subcontractor² the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Amount Received by Prime Contractor

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

EPA FORM 6100-2 (DBE Subcontractor Participation Form)

IX - EPA Form 6100-3 DBE Subcontractor Performance Form



OMB Control No: 2090-0030

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Performance Form

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: <input type="radio"/> DOT <input type="radio"/> SBA <input type="radio"/> Other: _____		Meets/ exceeds EPA certification standards? <input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

IX - EPA Form 6100-3 DBE Subcontractor Performance Form



OMB Control No: 2090-0030

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

X - EPA Form 6100-4 DBE Subcontractor Utilization Form



OMB Control No: 2090-0030

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Issuing/Funding Entity:			

I have identified potential DBE certified subcontractors	<input type="radio"/> YES	<input checked="" type="radio"/> NO	
If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?

Continue on back if needed

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

EPA FORM 6100-4 (DBE Subcontractor Utilization Form)

X - EPA Form 6100-4 DBE Subcontractor Utilization Form



OMB Control No: 2090-0030

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Utilization Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Instructions:

A. General Instructions:

MBE/WBE utilization is based on 40 CFR Part 33. The reporting requirement reflects the class deviation issued on November 8, 2013, clarified on January 9, 2014 and modified on December 2, 2014. EPA Form 5700-52A must be completed annually by recipients of financial assistance agreements where the combined total of funds budgeted for procuring supplies, equipment, construction or services exceeds \$150,000. This reporting requirement applies to all new and existing awards and voids all previous reporting requirements.

In determining whether the \$150,000 threshold is exceeded for a particular assistance agreement, the analysis must focus on funds budgeted for procurement under the supplies, equipment, construction, services or "other" categories, and include funds budgeted for procurement under sub-awards or loans

Reporting will also be required in cases where the details of the budgets of sub-awards/loans are not clear at the time of the grant awards and the combined total of the procurement and sub-awards and/or loans exceeds the \$150,000 threshold.

When reporting is required, all procurement actions are reportable, not just the portion which exceeds \$150,000.

If at the time of award the budgeted funds exceed \$150,000 but actual expenditures fall below, a report is still required.

If at the time of award, the combined total of funds budgeted for procurements in any category is less than or equal to \$150,000 and is maintained below the threshold, no DBE report is required to be submitted.

Recipients are required to report 30 days after the end of each federal year, per the terms and conditions of the financial assistance agreement.

Last reports are due October 30th or 90 days after the end of the project period, whichever comes first.

MBE/WBE program requirements, including reporting, are material terms and conditions of the financial assistance agreement.

B. Definitions:

Procurement is the acquisition through contract, order, purchase, lease or barter of supplies, equipment, construction or services needed to accomplish Federal assistance programs.

A **contract** is a written agreement between an EPA recipient and another party (also considered "prime contracts") and any lower tier agreement (also considered "subcontracts") for equipment, services, supplies, or construction necessary to complete the project. This definition excludes written agreements with another public agency. This definition includes personal and professional services, agreements with consultants, and purchase orders.

A **minority business enterprise (MBE)** is a business concern that is (1) at least 51 percent owned by one or more minority individuals, or, in the case of a publicly owned business, at least 51 percent of the stock is owned by one or more minority

individuals; and (2) whose daily business operations are managed and directed by one or more of the minority owners. In order to qualify and participate as an MBE prime or subcontractor for EPA recipients under EPA's DBE Program, an entity must be properly certified as required by 40 CFR Part 33, Subpart B.

U.S. citizenship is required. Recipients shall presume that minority individuals include Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, or other groups whose members are found to be disadvantaged by the Small Business Act or by the Secretary of Commerce under section 5 of Executive order 11625. The reporting contact at EPA can provide additional information.

A **woman business enterprise (WBE)** is a business concern that is, (1) at least 51 percent owned by one or more women, or, in the case of a publicly owned business, at least 51 percent of the stock is owned by one or more women and (2) whose daily business operations are managed and directed by one or more of the women owners. In order to qualify and participate as a WBE prime or subcontractor for EPA recipients under EPA's DBE Program, an entity must be properly certified as required by 40 CFR Part 33, Subpart B.

Business firms which are 51 percent owned by minorities or women, but are in fact not managed and operated by minorities or females do not qualify for meeting MBE/WBE procurement goals. U.S. Citizenship is required.

Good Faith Efforts

A recipient is required to make the following good faith efforts whenever procuring construction, equipment, services, and supplies under an EPA financial assistance agreement. These good faith

efforts for utilizing MBEs and WBEs must be documented. Such documentation is subject to EPA review upon request:

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.
6. If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

C. Instructions for Part I:

1A. Specify Federal fiscal year this report covers. The Federal fiscal year runs from October 1st through September 30th (**e.g. November 29, 2014 falls within Federal fiscal year 2015**)

1B. Specify report type. Check the annual reporting box. Also indicate if the project is completed.

1C. Indicate if this is a revision to a previous year and provide a brief description of the revision you are making.

2A-B. Please refer to your financial assistance agreement for the mailing address of the EPA financial assistance office for your agreement.

The "EPA DBE Reporting Contact" is the DBE Coordinator for the EPA Region from which your financial assistance agreement was originated. For a list of DBE Coordinators please refer to the EPA OSBP website at http://epa.gov/osbp/dbe_cord.

3A-B. Identify the agency, state authority, university or other organization which is the recipient of the Federal financial assistance and the person to contact concerning this report.

4A. Provide the Assistance Agreement number assigned by EPA. A separate report must be submitted for each Assistance Agreement.

***For SRF recipients:** In box 4a list numbers for ALL OPEN Assistance Agreements being reported on this form.

4B. Refer back to Assistance Agreement document for this information.

5A. Provide the total amount of the Assistance Agreement which includes Federal funds plus recipient matching funds and funds from other sources.

***For SRF recipients only:** SRF recipients will not enter an amount in 5a. SRF recipients should check the "N/A" box.

5B. Self-explanatory.

5C. Provide the total dollar amount of **ALL** procurements awarded this reporting period by the recipient, sub-recipients, and SRF loan recipients, **including** MBE/WBE expenditures, not just the portion which exceeds \$150,000. For example: Actual dollars for procurement from the procuring office; actual contracts let from the contracts office; actual goods, services, supplies, etc., from other sources including the central purchasing/ procurement centers).

***NOTE:** To prevent double counting on line 5C, if any amount on 5E is for a subcontract and the prime contract has already been included on Line 5C in a prior reporting period, then report the amount going to MBE or WBE subcontractor on line 5E, but exclude the amount from Line 5C. To include the amount on 5C again would result in double counting because the prime contract, which includes the subcontract, would have already been reported.

***For SRF recipients only:** In 5c please enter the total annual procurement amount under all of your SRF Assistance Agreements. The figure reported in this section is **not** directly tied to an individual Assistance Agreement identification number. (**SRF state recipients report state procurements in this section**)

5D. State whether or not sub-awards and/or subcontracts have been issued under the financial assistance agreements by indicating “yes” or “no”.

5E. Where requested, also provide the total dollar amount of all MBE/WBE procurement awarded during this reporting period by the recipient, sub-recipients, SRF loan recipients, and prime contractors in the categories of construction, equipment, services and supplies. These amounts include Federal funds plus recipient matching funds and funds from other sources.

6. If there were no MBE/WBE accomplishments this reporting period, please briefly how certified MBEs/WBEs were notified of the opportunities to compete for the procurement dollars entered in Block 5C and why certified MBEs /WBEs were not awarded any procurements during this reporting period.

7. Name and title of official administrator or designated reporting official.

8. Signature, month, day, and year report submitted.

D. Instructions for Part II:

For each MBE/WBE procurement made under this financial assistance agreements during the reporting period, provide the following information:

1. Check whether this procurement was made by the recipient, sub-recipient/SRF loan recipient, or the prime contractor.

2. Check either the MBE or WBE column. If a firm is both an MBE and WBE, the recipient may choose to count the entire procurement towards EITHER its MBE or WBE accomplishments. The recipient may also divide the total amount of the procurement (using any ratio it so chooses) and count those divided amounts toward its MBE and WBE accomplishments. If the recipient chooses to divide the procurement amount and count portions toward its MBE and WBE accomplishments, please state the appropriate amounts under the MBE and WBE columns on the form. **The combined MBE and WBE amounts for that MBE/WBE contractor must not exceed the “Value of the Procurement” reported in column #3**

3. Dollar value of procurement.

4. Date of procurement, shown as month, day, year. Date of procurement is defined as the date the contract or procurement was awarded, **not** the date the contractor received payment under the awarded contract or procurement, unless payment occurred on the date of award. **(Where direct purchasing is the procurement method, the date of procurement is the date the purchase was made)**

5. Using codes at the bottom of the form, identify type of product or service acquired through this procurement (e.g., enter 1 if construction, 2 if supplies, etc.).

6. Name, address, and telephone number of MBE/WBE firm.

**This data is requested to comply with provisions mandated by: statute or regulations (40 CFR Parts 30, 31, and 33 and/or 2 CFR Parts 200 and 1500); OMB Circulars; or added by EPA to ensure sound and effective assistance management. Accurate, complete data are required to obtain funding, while no pledge of confidentiality is provided.

The public reporting and recording burden for this collection of information is estimated to average 1 hour per response annually. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclosure or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPE Regulatory Information Division, U.S. Environmental Protection Agency (2136), 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Include the OMB Control number in any correspondence. Do not send the completed form to this address.

XII – Changes to Approved DBE Compliance Form

NOTE: THIS FORM IS REQUIRED OF THE LOAN RECIPIENT (OWNER) (WITH THE PRIME CONTRACTOR'S INPUT) FOR DBE COMPLIANCE ONLY IF A SUBCONTRACTOR/SUPPLIER/VENDOR IS SOUGHT AND/OR PROCURED AFTER THE CONTRACT ATA (APPROVAL-TO-AWARD) HAS BEEN ISSUED. IT IS SIMILAR TO THE DBE COMPLIANCE FORM (PAGE SGC-8) IN THAT IT IS THE COVER/SUMMARY FORM USED TO DOCUMENT THE ADDITIONAL DBE SOLICITATION AND/OR REVISE THE ORIGINAL DBE APPROVAL STATUS.

Loan Recipient: _____ Loan (Project) Number: _____

CERTIFICATIONS:

I certify that the information submitted on and with this form is true and accurate and that this company has met and will continue to meet the conditions of this construction contract regarding DBE solicitation and utilization. I further certify that criteria used in selecting subcontractors and suppliers were applied equally to all potential participants and that EPA Forms 6100-2 and 6100-3 were distributed to all DBE subcontractors.

(Prime Contractor Signature) Date _____

(Printed Name and Title)

*I certify that I have reviewed the information submitted on and with this form and that it meets the requirements of the Loan Recipient's/Owner's State Revolving Fund loan contract. (*Only ONE (1) signature required below.)*

(Signature of Loan Recipient (Owner)) Date _____

OR*

(Loan Recipient's (Owner's) Representative's Signature, (P.E.)) Date _____

(Printed Name and Title)

GENERAL INFORMATION: (Please attach additional pages to address 1 through 5, as needed.)

- (1) If an approved subcontractor is terminated or replaced, please identify this company and briefly state the reason.
- (2) For new or additional subcontractors, list name, trade, address, telephone number, contact person, dollar amount of subcontract and DBE status.
- (3) Attach proof of certification by EPA, SBA, DOT (or by state, local, Tribal or private entities whose certification criteria match EPA's) for each subcontractor listed as a DBE, MBE or WBE.
- (4) Attach documentation of solicitation effort for prospective DBE firms, such as fax confirmation sheets, copies of solicitation letters/emails, printouts of the online solicitations, printouts of online search results, affidavits of publication in newspapers, etc. The prime contractor is strongly encouraged to follow up each solicitation with, at least, one (1) logged phone call. Whenever possible, post solicitation for bids or proposals should be for a minimum of 30 calendar days before the bid or proposal closing date.
- (5) Provide justification for not selecting a certified DBE subcontractor that submitted a low bid for any subcontract area.

XIII – Certification Regarding Equal Employment Opportunity

The prime contractor is required to comply with Executive Order 112-46 of September 24, 1965 entitled "Equal Employment Opportunity" as amended by Executive Order 11375 of October 13, 1967.

The contract for the work under this proposal will obligate the prime contractor and its subcontractors not to discriminate in employment practices.

The prime contractor shall not maintain or provide for his/her employees the facilities, which are segregated on a basis of race, creed, color or national origin, whether such facilities are segregated by directive or on a de facto basis.

The prime contractor must, if requested, submit a compliance report concerning their employment practices and policies in order to maintain his/her eligibility to receive the award of the contract.

The prime contractor must be prepared to comply in all respects with any contract provisions regarding non-discrimination stipulated in conjunction with labor standards.

PRIME CONTRACTOR'S CERTIFICATION:

Prime Contractor's Name: _____

Address: _____

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause. Yes ___ No ___
2. Compliance Reports were required to be filed in connection with such contract or subcontract. Yes ___ No ___
3. Bidder has filed all compliance reports due under applicable contract requirements. Yes ___ No ___

If answer to item 3 is "No", please explain in detail on reverse side of this certification.

Certification - The information above is true and complete to the best of my knowledge and belief.

Signature of Prime Contractor: _____

Title: _____

Date: _____

XIV – Debarred Firms Certification

All prime construction contractors shall certify that Subcontracts have not and will not be awarded to any firm that is currently on the General Service Administration's Master List of Debarred, Suspended and Voluntarily Excluded Persons, in accordance with the provisions of ADEM Administrative Code 335-6-14-.35. Debarment action is taken against a firm for noncompliance with Federal Law.

All bidders shall complete this certification in duplicate and submit both copies to the Loan Recipient (Owner) with the bid proposal. The Loan Recipient (Owner) shall transmit one copy to the SRF Section within 14 days after the bid opening.

Project Name/Loan Name*:

(*not **Contract** Name)

SRF Project No.:

The undersigned hereby certifies that the firm of _____
_____ has not and will not award a subcontract, in connection with any contract awarded to it as the result of this bid, to any firm that is currently on the General Service Administration's Master List of Debarred, Suspended, and Voluntarily Excluded Persons.

Signature of Prime Contractor:

Title:

Date:

XV – Davis-Bacon and Related Acts

Labor Standards Provisions for Federally Assisted Contracts

Wage Rate Requirements Under FY 2013 Continuing Appropriation

I. Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6) For Subrecipients That Are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Continuing Resolution with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. If a State recipient needs guidance, the recipient may contact Cynthia Y. Edwards at Edwards.Cynthiay@epa.gov or at 404-562-9340 of EPA, Region 4 Grants and SRF Management Section, for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/whd/>

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract Subcontract Provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2010 appropriation , the following clauses:

(1) Minimum wages.

(i) 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 regulations issued 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 equivalents 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 such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) 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 § 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 paragraph (a)(1)(ii) 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 be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, 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 State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, 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.

(iii) 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.

(iv) 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.

(2) Withholding.

The subrecipient(s), shall upon written request of the EPA Award Official or 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 Davis-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 the work, all or part of the wages required by the contract, the (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 until such violations have ceased.

(3) Payrolls and basic records.

(i) 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 correct 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 section 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 is financially responsible, and 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 cost 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.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <https://www.dol.gov/agencies/whd/forms/wh347> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) 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:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or 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;

(3) 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.

(C) 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 (a)(3)(ii)(B) of this section.

(D) 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.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA 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 or State 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.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed 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, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, 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 Office of Apprenticeship Training, Employer and Labor Services 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 at 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 Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, 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.

(ii) 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 and Training Administration. The ratio of trainees 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. Trainees 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 trainee 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. 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.

(iii) 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.

(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.

(6) Subcontracts.

The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, 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 5.5.

(7) Contract termination: debarment.

A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) 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.

(9) 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 Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) 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).

(ii) 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).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(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 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 laborer 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.

(2) Violation; liability for unpaid wages; liquidated damages.

In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and 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 (a)(1) of this section, 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 (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages.

The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys 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 (b)(2) of this section.

(4) Subcontracts.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors 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 (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information

indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract . Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <https://www.dol.gov/agencies/whd/contact/local-offices>.

(Insert applicable wage rate determination here.)

Wage Rates are county specific for *Heavy Construction* and can be found at:
<https://sam.gov/content/wage-determinations>

XVI – American Iron and Steel Requirement

Section 4.13 Compliance with 2014 Appropriations Act. (a) The Loan Recipient agrees to comply with all federal requirements applicable to the Authority Loan (including those imposed by P.L. 113-76, Consolidated Appropriations Act (the "2014 Appropriations Act") and related SRF Policy Guidelines) which the Loan Recipient understands includes, among other things, requirements that all of the iron and steel products used in the Project are to be produced in the United States ("American Iron and Steel") unless (i) the Loan Recipient has requested and obtained a waiver from the U.S. Environmental Protection Agency pertaining to the Project or (ii) the Authority has otherwise advised the Loan Recipient in writing that the Buy American Requirement is not applicable to the Project. .

(b) The Loan Recipient also agrees to comply with all recordkeeping and reporting requirements under the Clean Water Act (codified generally under 33 U.S.C. §1251 et seq.) (the "Clean Water Act"), including any reports required by a federal agency or the Authority such as performance indicators of program deliverables, information on costs and Project progress. The Loan Recipient understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities, and (ii) failure to comply with the Clean Water Act and this Agreement may be an Event of Default hereunder that results in a repayment of the Authority Loan in advance of the maturity of the Evidence of Indebtedness and/or other remedial actions.

The Loan Recipient agrees to cause all contractors and subcontractors to comply with (through the inclusion of appropriate terms and conditions in all contracts, subcontracts and lower tiered transactions, such terms and conditions to be in substantially the form set forth in connection with the development and construction of the project

The Contractor acknowledges to and for the benefit of the _____, Alabama ("Purchaser"), and the Alabama Water Pollution Control Authority or the Drinking Water Finance Authority (the "State Authority") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel") including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State Authority that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State Authority or any damages owed to the State Authority by the Purchaser). While the Contractor has no direct contractual privity with the State Authority, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State Authority.

XVII – Build America, Buy America (BABA) Requirement




Comply with all federal requirements applicable to the assistance received (including those imposed by the Infrastructure Investment and Jobs Act (“IIJA”), Public Law No. 117-58) which the Participant understands includes, but is not limited to, the following requirements: that all of the iron and steel, manufactured products, and construction materials used in the Project are to be produced in the United States (“Build America, Buy America Requirements”) unless (i) the Participant has requested and obtained a waiver from the cognizant Agency[1] pertaining to the Project or the Project is otherwise covered by a general applicability waiver; or (ii) all of the contributing Agencies have otherwise advised the Participant in writing that the Build America, Buy America Requirements are not applicable to the Project. Comply with all record keeping and reporting requirements under all applicable legal authorities, including any reports required by the funding authority (such as EPA and/or a state), such as performance indicators of program deliverables, information on costs and project progress. The Participant understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities and (ii) failure to comply with the applicable legal requirements and this Agreement may result in a default hereunder that results in a repayment of the assistance agreement in advance of the maturity of the Bonds, termination and/or repayment of grants, cooperative agreements, direct assistance or other types of financial assistance, and/or other remedial actions.

ALL CONSTRUCTION CONTRACTS MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE BABA REQUIREMENTS. The loan recipient agrees to cause all contractors and subcontractors to comply with (through the inclusion of appropriate terms and conditions in all contracts, subcontracts, and lower tiered transactions) such terms and conditions to be in substantially the form set forth in connection with the development and construction of the project.

The Contractor acknowledges to and for the benefit of the _____ (“Owner”) and the _____ (the “Funding Authority”) that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as “Build America, Buy America;” that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States (“Build America, Buy America Requirements”) including iron and steel, manufactured products, and construction materials provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part,

from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.




XVIII – Project Sign Detail - CWSRF

 <p>ADEM Alabama Department of Environmental Management</p>	<p>STATE OF ALABAMA Honorable (name), Governor</p>	
<p>ALABAMA WATER POLLUTION CONTROL AUTHORITY POLLUTION CONTROL PROJECT</p>		
<p>(NAME OF OWNER) (NAME OF PROJECT)</p>		
<p>\$(Project/Contract Amount) STATE REVOLVING FUND LOAN</p>		
<p>(NAME OF CONTRACTOR) • CONTRACTOR (NAME OF ENGINEER) • CONSULTING ENGINEER</p>		
<p>ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT U.S. ENVIRONMENTAL PROTECTION AGENCY</p>		
		

Two vertical rectangular posts are shown below the sign area, one on the left and one on the right, representing the support structure for the sign.

1. Sign is to be constructed of ½” MDO plywood, 4’ x 8’. Alternate materials may be used if approved by ADEM prior to use.
2. Paint with two (2) coats oil-base enamel before lettering.
3. Background color white; lettering black.
4. Lettering may be painted or vinyl. All lettering sizes to be proportionate to sign layout.
5. Sign shall be attached to 4” x 4” x 8’ treated posts. Alternatives may be used if approved by ADEM prior to use.
6. Sign shall be placed in prominent location, easily readable from existing street or roadway.
7. Sign shall be maintained in good condition until completion of project.

XIX – Project Sign Detail - DWSRF

 ADEM Alabama Department of Environmental Management	STATE OF ALABAMA Honorable (Name), Governor	
ALABAMA DRINKING WATER FINANCE AUTHORITY INFRASTRUCTURE PROJECT		
(NAME OF OWNER) (PROJECT OR CONTRACT NAME)		
\$(Project/Contract Amount) STATE REVOLVING FUND LOAN		
(NAME OF CONTRACTOR) • CONTRACTOR (NAME OF ENGINEER) • CONSULTING ENGINEER		
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT U.S. ENVIRONMENTAL PROTECTION AGENCY		

| |

1. Sign is to be constructed of ½” MDO plywood, 4’ x 8’. Alternate materials may be used if approved by ADEM prior to use.
2. Paint with two (2) coats oil-base enamel before lettering.
3. Background color white; lettering black.
4. Lettering may be painted or vinyl. All lettering sizes to be proportionate to sign layout.
5. Sign shall be attached to 4” x 4” x 8’ treated posts. Alternatives may be used if approved by ADEM prior to use.
6. Sign shall be placed in prominent location, easily readable from existing street or roadway.
7. Sign shall be maintained in good condition until completion of project.

XX – Construction Contract Requirements

This checklist is to be completed by the Loan Recipient (Owner)/Engineer when submitting plans and specifications to the SRF Section for review. It affirms to the SRF reviewer that the Loan Recipient (Owner)/Engineer has addressed these items (in boilerplate form) within the specifications manual.

Contract Page No.	Satisfied Yes/No	
_____	_____	Bid Advertisement (including date, time, and location of bid opening).
_____	_____	Bid Bond.
_____	_____	Performance Bond (100%).
_____	_____	Payment Bond (Not less than 50%).
_____	_____	Contract Length.
_____	_____	Liquidated Damages.
_____	_____	Liability Insurance (including workman's comp, public liability, and builder's risk, if applicable).
_____	_____	Method of Award (i.e. lowest, responsive, responsible bidder).
_____	_____	Air testing of gravity sewers (if applicable).

Within 14 days after the bid opening, the Loan Recipient (Owner)/Engineer is to prepare the Project Review and Cost Summary (per the **PR&CS Checklist, page SGC-39**) and submit it to the SRF Section of ADEM. Upon completion of review, a written ATA (Approval-to-Award) will be issued.

NOTE:

The Loan Recipient (Owner) assumes all financial risk, if the construction contract is awarded prior to the issuance of an ATA letter by the SRF Section.

XXI – Project Review and Cost Summary

<h2 style="margin: 0;">ADEM</h2> <p style="font-size: small; margin: 0;">Alabama Department of Environmental Management</p>	<h2 style="margin: 0;">SRF Project Review and Cost Summary</h2>	Form Revised 07-2021
<p>This form is to be completed and submitted (with supporting documentation) to the SRF Section <u>within 14 days after bid opening</u>. Following satisfactory review, an ATA (Approval-to-Award) letter will be issued. After the ATA is issued/award of the contract, a pre-construction conference should be scheduled (with the SRF Project Manager in attendance). <u>A complete, bound set of the executed contract documents manual should be forwarded to the SRF Section for review and written approval following the pre-construction conference.</u></p>		
Loan Recipient: _____ Project Number: _____ Project Name: _____ Contract Number: _____ Contract Name: _____		
1. Date of plans and specifications concurrence letter from ADEM-SRF Section: _____ Date of construction permit issuance from ADEM-DW Branch: _____		
2. Attach copies of the following documents:		
___ a. Bid advertisement with certification by publisher and date(s) of publication.		
___ b. Certified bid tabulation.		
___ c. Proposal of the selected bidder.		
___ d. Bid bond.		
___ e. Engineer’s letter to the loan recipient recommending award of the contract. If the award is made to other than the low bidder, provide justification.		
___ f. Site certificates for the project, if not previously submitted with the SRF loan application.		
___ g. <u>DBE Documentation from the loan recipient (owner) and the prime contractor.</u> Utilization, solicitation and documentation requirements (with a list of required documents) are discussed in detail in Parts III - V (pages SGC-3 - SGC-23) of the ADEM <i>SRF Supplemental General Conditions</i> for SRF Assisted Public Drinking Water and Wastewater Facilities Construction Contracts.		
___ h. Copy of the wage determination used in bidding.		
___ i. Any addenda that have been issued after ADEM review of the plans and specifications.		
Comments: _____ _____		

Infrastructure Investment and Jobs Act (IIJA) “BIL” Signage Required Term and Condition

This Term & Condition applies to construction projects funded in whole or in part by the Infrastructure Investment and Jobs Act (IIJA) for the following programs: Clean Water State Revolving Fund (CWSRF), Drinking Water State Revolving Fund (DWSRF).

The recipient shall comply with the requirements for signage as outlined below and in the Infrastructure Investment and Jobs Act (IIJA) guidance. The IIJA sign should be constructed in addition to the State Revolving Fund sign outlined in the Supplemental General Conditions.

1. Signage Requirements

- a. Building A Better America Emblem: The recipient will ensure that a sign is placed at construction sites supported under this award displaying the official Building A Better America emblem and must identify the project as a “project funded by President Biden’s Bipartisan Infrastructure Law.” Construction is defined at 40 CFR 33.103 as “erection, alteration, or repair (including dredging, excavating, and painting) of buildings, structures, or other improvements to real property, and activities in response to a release or a threat of a release of a hazardous substance into the environment, or activities to prevent the introduction of a hazardous substance into a water supply.” The sign must be placed at construction sites in an easily visible location that can be directly linked to the work taking place and must be maintained in good condition throughout the construction period.

The recipient will ensure compliance with the guidelines and design specifications for using the official Building A Better America emblem and corresponding logomark available at: <https://www.whitehouse.gov/wp-content/uploads/2022/08/Building-A-Better-America-Brand-Guide.pdf>

- b. EPA Logo: The recipient will ensure that signage displays the EPA logo along with the official Building A Better America emblem. The EPA logo must not be displayed in a manner that implies that EPA itself is conducting the project. Instead, the EPA logo must be accompanied with a statement indicating that the recipient received financial assistance from EPA for the project.

The recipient will ensure compliance with the sign specifications provided by the EPA Office of Public Affairs (OPA) available at: <https://www.epa.gov/grants/epa-logo-seal-specifications-signage-produced-epa-assistance-agreement-recipients>. As provided in the sign specifications from OPA, the EPA logo is the preferred identifier for assistance agreement projects and use of the EPA seal requires prior approval from the EPA. To obtain the appropriate EPA logo or seal graphic file, the recipient should send a request directly to OPA and include the EPA Project Officer in the communication. Instructions for contacting OPA is available on the [Using the EPA Seal and Logo page](#).

- c. Procuring Signs: Consistent with section 6002 of RCRA, 42 U.S.C. 6962, and 2 CFR 200.323, recipients are encouraged to use recycled or recovered materials when procuring signs. Signage costs are considered an allowable cost under this assistance agreement provided that the costs associated with signage are reasonable. Additionally, to increase public awareness of projects serving communities where English is not the predominant language, recipients are encouraged to translate the language on signs (excluding the official Building A Better America emblem or EPA logo or seal) into the appropriate non-English language(s). The costs of such translation are allowable, provided the costs are reasonable.

2. Public or Media Events

EPA encourages the recipient to notify the EPA Project Officer listed in this award document of public or media events publicizing the accomplishment of significant events related to construction projects as a result of this agreement and provide the opportunity for attendance and participation by federal representatives with at least ten (10) working days' notice.

Appendix A: Guidance Documentation

===== PRESIDENT JOE BIDEN =====

BUILDING A BETTER AMERICA

===== BUILD.GOV =====

THE BIPARTISAN INFRASTRUCTURE LAW

Project Funding Source Sign Assembly

BUILDING A BETTER AMERICA SIGNAGE GUIDELINES

Guidelines for Logo Applications

The purpose of this document is to provide general guidelines for signs displayed at project sites for projects funded under the Bipartisan Infrastructure Law, also known as the Infrastructure Investment and Jobs Act.

The first part of this document pertains to signs for projects funded under the Bipartisan Infrastructure Law that are not installed in the highway right-of-way. For highway signage guidance that is MUTCD compliant please see pages 10 and 11.

For all other signs please start here.

This document provides information about the Building A Better American logo mark as well as how logos, marks and seals of state, cities and counties can be incorporated into signage. Logos of contractors are not permitted on the signage. When logos are included in signage, the placement should conform to the brand guideline.




Variations and Usage

There is one approved mark associated with the Building A Better America logo. To preserve the integrity of the Building A Better America logo mark, make sure to apply them correctly. Altering, distorting, or recreating the 'marks' in any way weakens the power of the image and what it represents.

Layout and design of signs and communication materials will vary, so care must be taken when applying the logo mark.



The colors, graphics and fonts used should conform to graphic standards.

COLOR	CMYK	RGB	HEX P	MS
 Blue	83,48,0,48	22 / 68 / 132	#164484	PMS7687C
 Red	0,100,81,0	255/0/49	#FF0031	PMS185C
 White	2,2,0, 3	242 /244/248	#F2F4F8	Bright White

Logos

PROJECT FUNDED BY

The Bipartisan Infrastructure Law

PROJECT FUNDED BY

The Bipartisan Infrastructure Law



**U.S. Department
of Transportation**

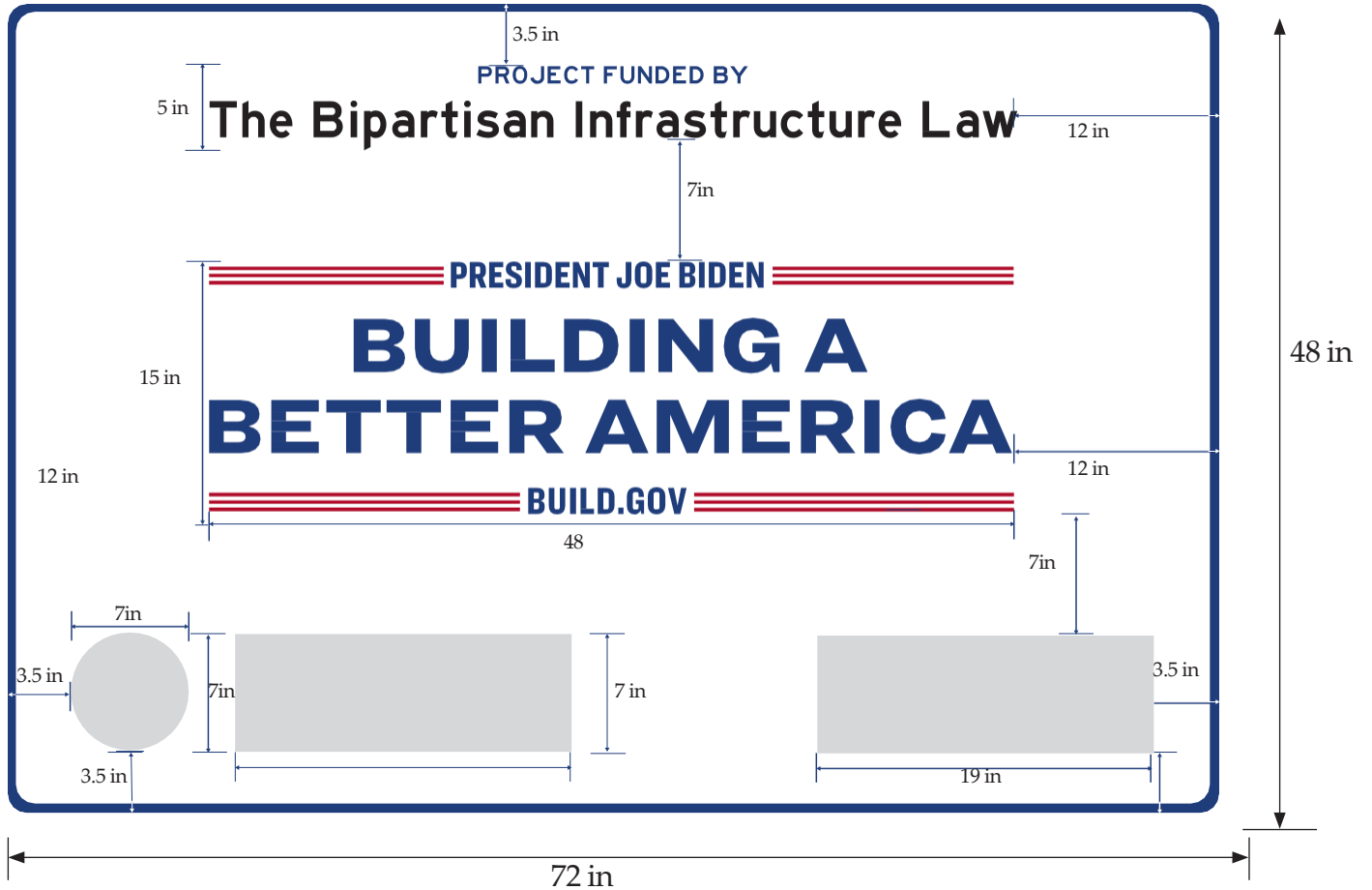
FTA



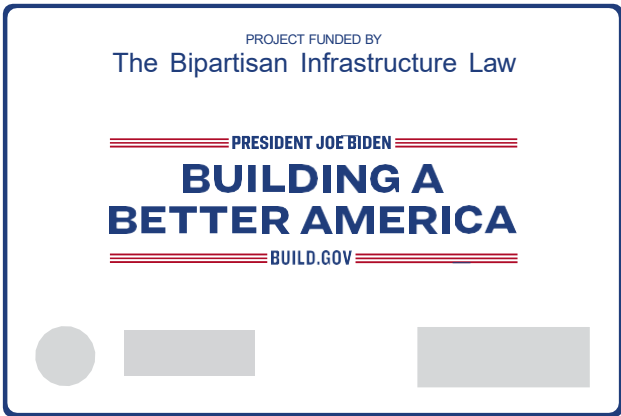
**U.S. Department
of Transportation**

FTA

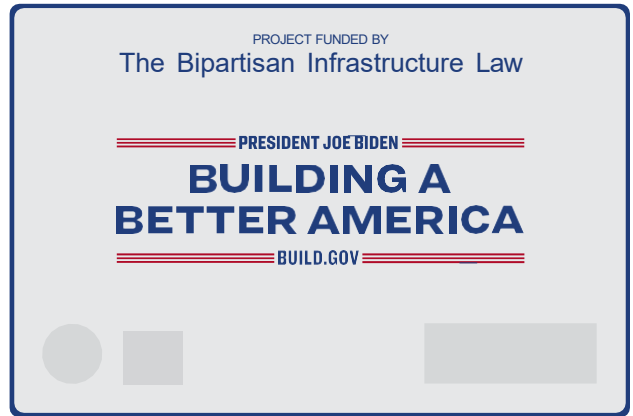
Building A Better America General Guidelines for Logo Applications



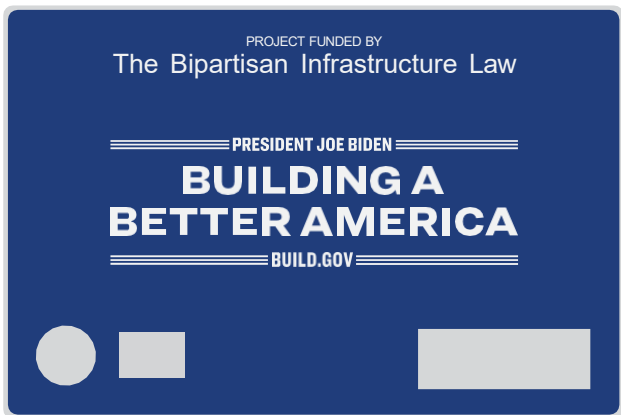
Sign Colors *



White *



Gray

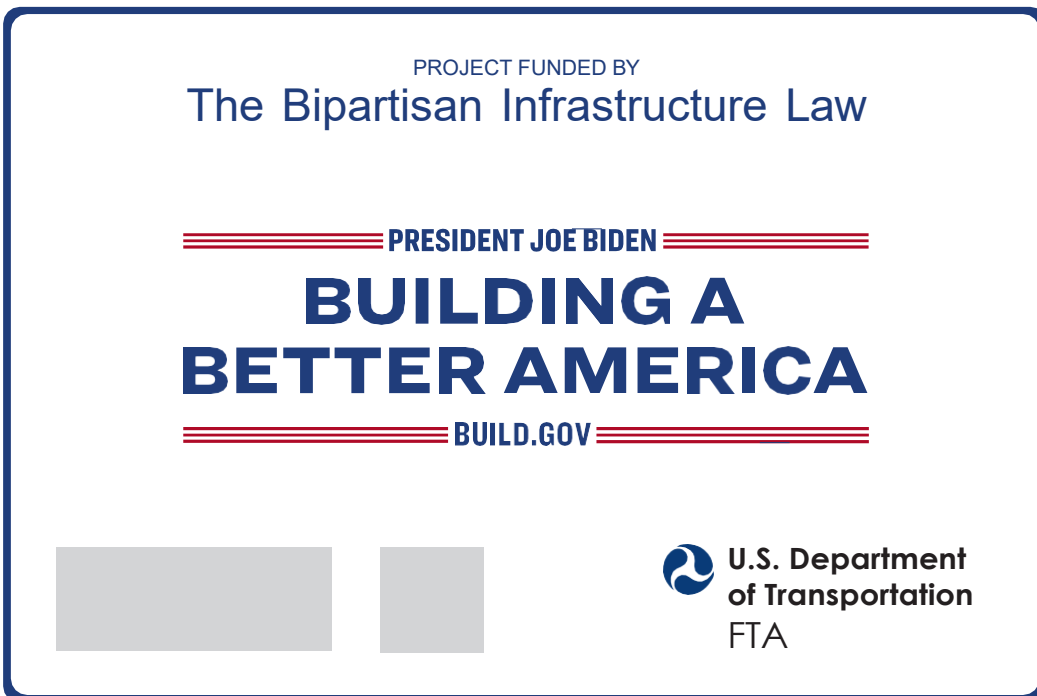


Blue

State, City and County Logo Variations



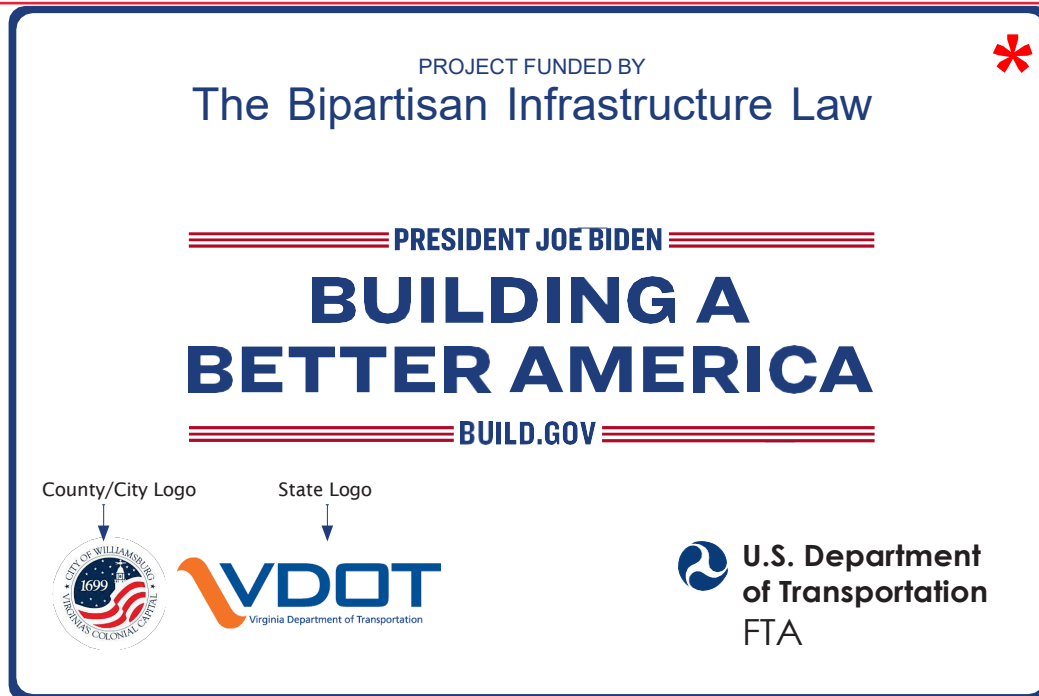
Square State Logo: 7X7 inches



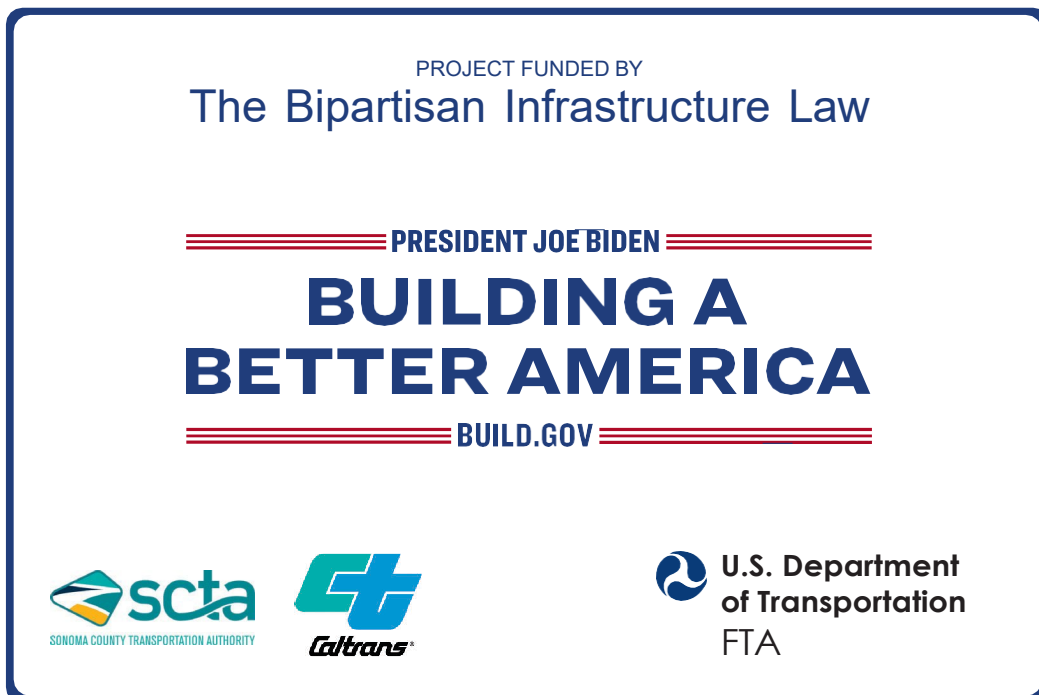
Rectangle State Logo: not to exceed 19 x 7 inches

3 Logos Samples *

* The 3-logo arrangement sign below is a general reference for all Alabama CWSRF and DWSRF (BIL Funded) Loan Projects. (Please see page 57 (last page) for an illustration of the selected Alabama BIL sign.)

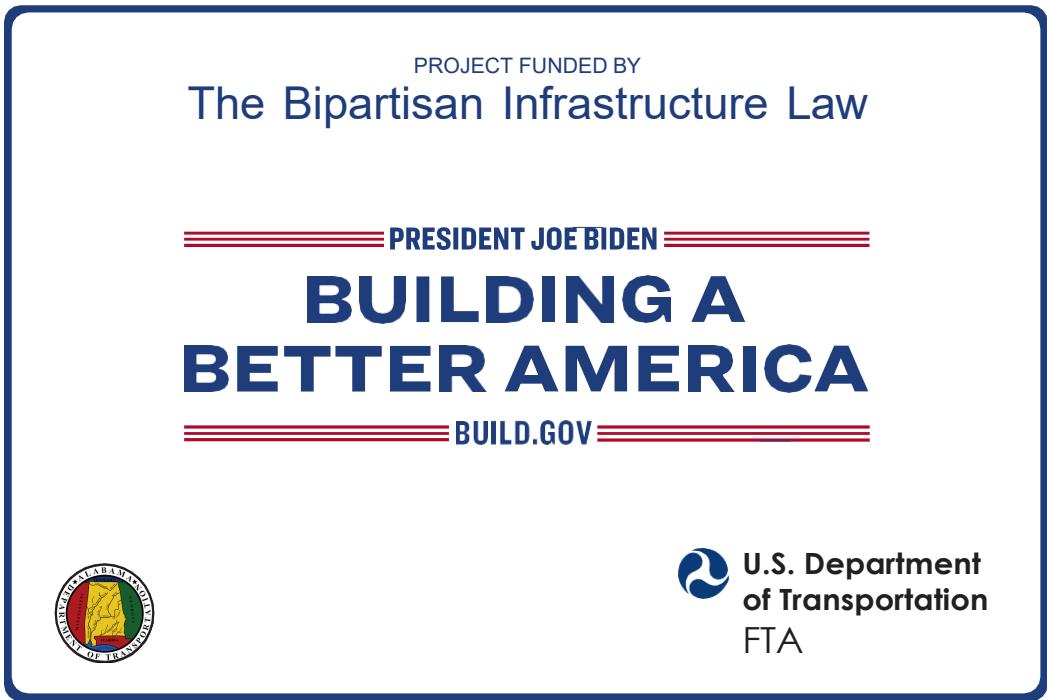


City Circle Logo 7 X 7 Inches. State Rectangle Logo should not exceed 19x7 inches

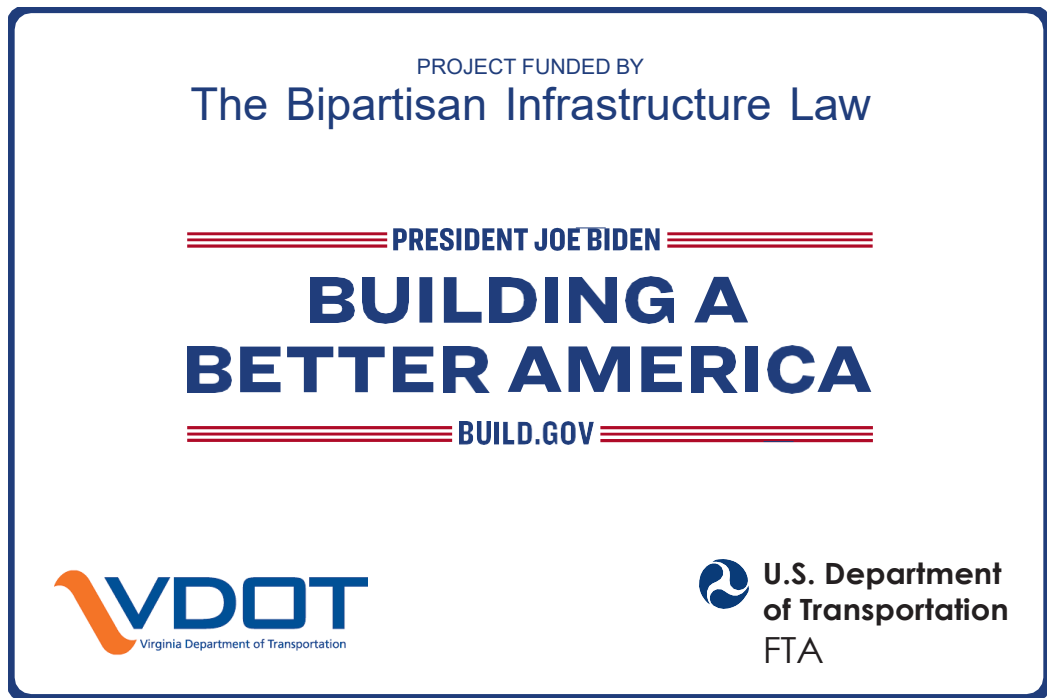


Rectangle State Logo: not to exceed 19 x 7 inches

2 Logos Samples



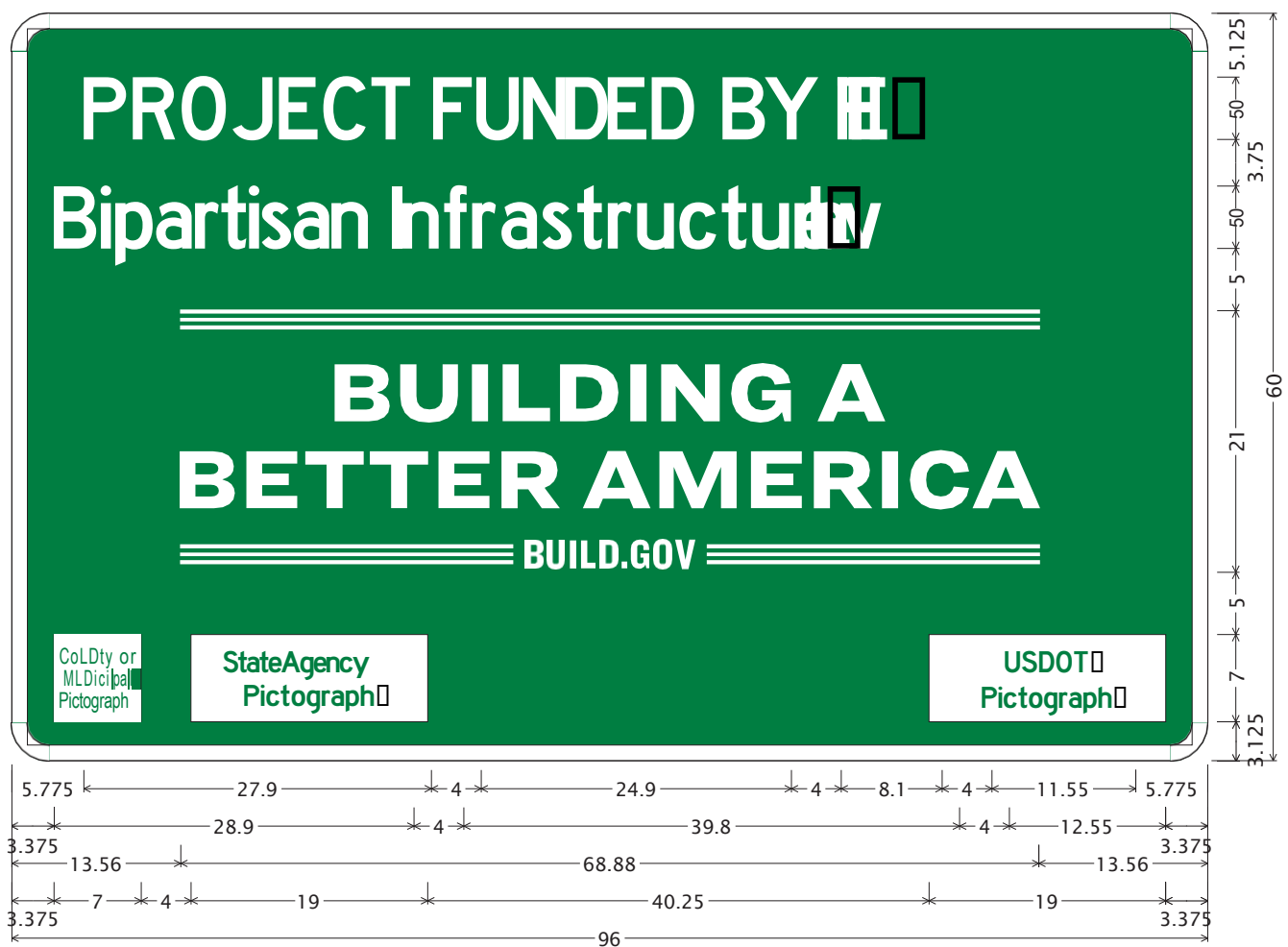
Circle State Logo: 7 x 7 inches



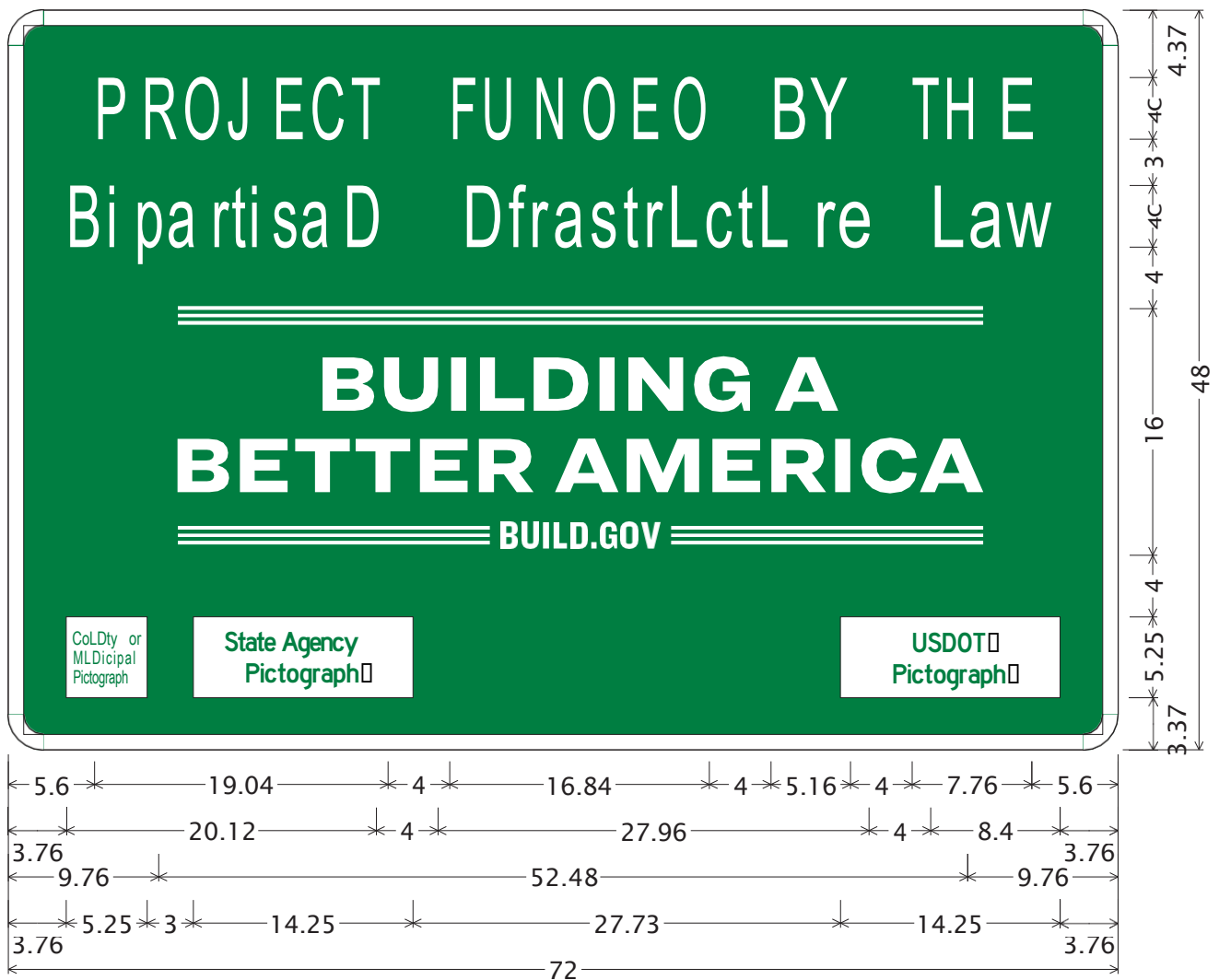
Circle State Logo: 7 x 7 inches

RULES FOR HIGHWAY RIGHT OF WAY SIGNAGE

Highway Right of Way Signage 8 Feet



Highway Right of Way Signage 6 Feet



EPA LOGO & SEAL SPECIFICATIONS FOR SIGNAGE PRODUCED BY EPA ASSISTANCE AGREEMENT RECIPIENTS

EPA's logo is a two-leaved flower, without stem, accompanied by the Agency's initials to the right. The EPA logo is the primary identifier for use on construction grant signage. Assistance agreement recipients are not required to receive EPA approval to use the EPA logo when used in accordance with the terms and conditions of their assistance agreement award.

The official seal of EPA is circular and is comprised of the two-leaved flower, with stem, encircled by the title UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. The EPA seal may be used only when official comparable seals are used and the recipient has received prior written EPA approval.

It is important that the EPA logo and seal always be reproduced with consistent high quality. The seal and logo must remain intact and unchanged (for example, don't use the flower from the seal by itself). The logo and seal may only be displayed using either the standard color scheme or a single color that complements the background where it appears.

COLOR AND SPACING

- The entire logo and seal must appear in black, gray, or any uniform color or knock out white on a dark background. The flower and text may not be different colors. The flower itself may not contain more than one color. The seal can be monotone or full color, based on the rest of the seals that it's placed with.
- The relationship between the flower portion of the logo and Helvetica type should never be shifted or adjusted.



PMS 362



PMS 660



Process Black at 70%



Process Black 100%



Knock out on a dark color

PREFERRED USE

Use the preferred presentation of the logo on products that do not have enough space for the full logo with text. It may also be used in the presence of other logos.



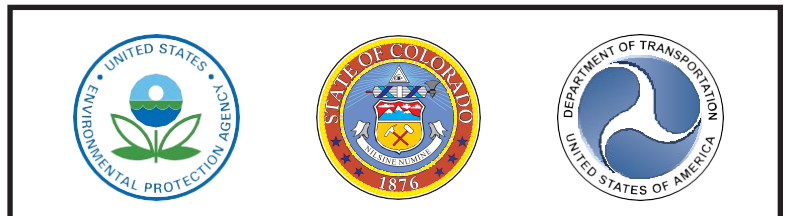
SIZE AND LOGO WITH OTHER LOGOS

It's important that all parts of the EPA logo be readable. The EPA logo should not be reproduced at sizes any smaller than 1.0" height on a sign. There are no maximum size restrictions as long as the clear space requirements are met. The logo should be made the same relative size as the other logos on the signage.



SIZE AND SEAL WITH OTHER SEALS

When there are multiple state or Federal seals/circular logos, the use of the EPA seal is appropriate with prior written EPA approval. The EPA seal should be the same size as the seals that accompany it and should be a minimum of 3 inches in height.



IMPROPER LOGO USAGE



AL BIL Sign Detail *

* This red, white and blue, 3-logo BIL sign (utilizing these required State of Alabama and Federal logos (as arranged and shown below)) should be erected on the project sites of all Alabama Clean Water and Drinking Water BIL Funded Projects alongside the SRF Project Sign.

PROJECT FUNDED BY
The Bipartisan Infrastructure Law

==== PRESIDENT JOE BIDEN ====

**BUILDING A
BETTER AMERICA**

==== BUILD.GOV ====



"General Decision Number: AL20240110 06/28/2024

Superseded General Decision Number: AL20230110

State: Alabama

Construction Type: Heavy

County: Mobile County in Alabama.

HEAVY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	06/28/2024

* ENGI0653-013 06/03/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR (PIPELINE)		
Backhoe, Excavator, Trackhoe.....	\$ 48.89	18.00
Bulldozer.....	\$ 48.89	18.00

* SUAL2015-038 08/02/2017

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 19.05	7.86
CEMENT MASON/CONCRETE FINISHER, Includes Water Sewer Lines.....		
	\$ 13.78 **	0.00
ELECTRICIAN.....	\$ 19.56	0.00
LABORER: Common or General, Includes Water Sewer Lines.....		
	\$ 15.21 **	6.16
LABORER: Pipelayer, Includes Water Sewer Lines.....		
	\$ 11.95 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe, Includes Water Sewer Lines (Excludes, PIPELINE).....		
	\$ 13.56 **	0.00
OPERATOR: Loader, Includes Water Sewer Lines.....		
	\$ 17.64	2.14
TRUCK DRIVER: Dump Truck, Includes Water Sewer Lines.....		
	\$ 12.56 **	2.12

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====
** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

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 <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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.

State Adopted Rate Identifiers

Classifications listed under the "SA" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R. 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

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 National Office because National Office has 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 2
GENERAL CONDITIONS

SECTION 1 DEFINITION OF TERMS

1.01 DEFINITIONS:

Whenever in these Specifications, or in any documents or instruments in construction operations where these Specifications govern, the following terms, or pronouns in the place of them, are used, the intent and meaning shall be interpreted as follows:

1.02 AASHTO:

The American Association of State Highway and Transportation Officials. Any reference to AASHTO standards shall be taken to mean the most recently published revision unless otherwise specified.

1.03 ANSI:

The American National Standards Institute. Any reference to ANSI standards shall be taken to mean the most recently published revision unless otherwise specified.

1.04 ADDENDUM:

An Addendum is a document which is added to the original Contract Documents during the bidding period to clarify, revise, add to, or delete from the original Contract Documents or previous Addenda.

1.05 ADEM:

The Alabama Department of Environmental Management.

1.06 ADVERTISEMENT FOR BIDS:

A document which briefly describes to prospective Bidders the title and location of Project, location of bid opening, brief description of nature and scope of Project, identities of Owner and Engineer, how to obtain Bid Documents, deposit requirements, statement of bid security, and method of submitting bids.

1.07 AGREEMENT:

The written agreement between Owner and Contractor covering the Work to be performed; other Contract Documents are attached to the Agreement.

1.08 ASTM:

The American Society for Testing Materials. Any reference to ASTM standards shall be taken to mean the most recently published revision unless otherwise specified.

1.09 AWWA:

The American Water Works Association. Any reference to AWWA standards shall be taken to mean the most recently published revision unless otherwise specified.

1.10 BID:

The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.11 BIDDER:

Any individual, firm or corporation submitting a Proposal for the Work contemplated, acting directly or through a duly authorized representative.

1.12 BOARD:

The Board of Water and Sewer Commissioners of the City of Mobile, Alabama.

1.13 CONTRACT:

The written agreement between the Owner and the Contractor, covering the performance of the Work and the furnishing of the labor and materials in the construction thereof. The Contract shall include, but shall not be limited to the "Invitation for Bids", "Proposals", "Plans", "General Conditions",

"Standard Specifications", "Supplemental Specifications", "Special Provisions (if any)", "Contract Agreement" and "Contract Bonds", together with all the "Supplemental Agreements", "Addenda", and "Extra Work Orders" that are required to complete the Work in a substantial and acceptable manner.

1.14 CONTRACT BID PRICE:

The sum of the products of the quantities of the items of the Work listed in the Proposal, and the respective lump sum or unit prices bid in the Proposal.

1.15 CONTRACT BONDS:

The approved bonds furnished by the Contractor and his surety to guarantee completion of the Contract in accordance with its terms and prompt payment to all persons supplying him or them with labor, materials, or supplies.

1.16 CONTRACTOR:

The individual, firm, or corporation that has entered into a Contract awarded him by the Owner for any work covered by these Specifications, acting directly or through his agents or employees.

1.17 CONTRACTOR:

The county in which the Project is being constructed.

1.18 DEVELOPER:

The person, firm or corporation engaged in developing or improving real estate for use or occupancy.

1.19 DEVELOPER'S ENGINEER:

An Engineer registered with the Alabama State Board of Registration for Professional Engineers, retained by the developer to provide professional engineering services for a project.

1.20 DIPRA:

The Ductile Iron Pipe Research Association.

1.21 ENGINEER:

An Engineer registered with Alabama State Board of Registration for Professional Engineers or his authorized representative, acting as the Owner's agent within the scope of the authority and/or the particular duties entrusted to it.

1.22 EQUIPMENT:

All machinery and equipment, 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.

1.23 EXTRA WORK:

Performance or furnishing of work or materials which is found necessary for proper completion of the improvement and which in principle is an obligation of the Contractor, but which is not covered by any item in the bid schedule in the Proposal and for which no means of payment, direct or indirect, has been provided in the Contract, and which is an obligation for which special remuneration, by an "Extra" price or by other consideration, in any case to be duly negotiated, or by "Force Account," shall be paid to the Contractor.

1.24 EXTRA WORK ORDERS:

Written orders approved by the Owner to the Contractor concerning the performance of work or furnishing of materials involving Extra Work as defined in these Specifications.

1.25 LABORATORY:

Any laboratory authorized by the Owner to test materials and work involved in the Contract.

1.26 MATERIAL:

Any substance proposed to be used in connection with the construction of any part of the Work and its appurtenances.

1.27 NEMA:

The National Electrical Manufacturers Association. Any reference to NEMA standards shall be taken to mean the most recently published revision unless otherwise specified.

1.28 NOTICE TO PROCEED:

Written notice from the Engineer or the equivalent thereto giving the Contractor notice of the date on which he is to begin the prosecution of the Work for which he has contracted.

1.29 OSHA:

The Federal Occupational Safety and Health Administration.

1.30 OWNER:

The Board of Water and Sewer Commissioners of the City of Mobile, Alabama.

1.31 PLANS (DRAWINGS):

All official, approved Plans (Drawings), which are on file with the Owner, or exact reproductions thereof, showing details of the Work covered by the Contract.

1.32 PRODUCT:

The term "product" as used in these Contract Documents includes materials, systems and equipment.

1.33 PROJECT:

The entire Work to be performed pursuant to the Contract Documents.

1.34 PROPOSAL:

The written offer for the Work contemplated, when submitted by the Bidder in the required manner on the prescribed Proposal Form, properly signed and guaranteed.

1.35 PROPOSAL FORM:

The approved prepared form on which the Owner requires the formal bids to be submitted for the Work contemplated.

1.36 PROPOSAL GUARANTY:

The certified check or bid bond designated in the Invitation for Bids, or in the Proposal Form, to be furnished by the Bidder to insure execution of the Contract and furnishing of the bonds for the Work contemplated, if it be awarded to him.

1.37 RECORD DRAWINGS:

Drawings which show details of the Work as on the Plans but which revise the Plans to include any modifications or deviations which have been approved by the Board or the Engineer and incorporated into the Work.

1.38 RESIDENT PROJECT REPRESENTATIVE:

The authorized representative of the Engineer who is assigned to the Project site or any part thereof.

1.39 SAHD:

The State of Alabama Highway Department.

1.40 SHOP DRAWINGS:

All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by Contractor, a subcontractor, manufacturer, supplier, distributor or other person on behalf of the Contractor, and which illustrate the equipment, material or some portion of the Work.

1.41 SPECIFICATIONS:

The general term comprising all the directions, provisions and requirements contained herein, together with such as may be added or adopted as General Conditions, Supplemental General Conditions, Supplemental Specifications or Special Provisions.

1.42 STATE:

The state in which the Project is being constructed.

1.43 SUBCONTRACTOR:

Any properly qualified individual, firm, or corporation undertaking the performance of any part of the Work under the terms of the Contract by virtue of an agreement between himself and the Contractor previously approved by the Owner.

1.44 SUPERINTENDENT:

The representative for the Contractor present on the Work at all times during progress, authorized to receive and fulfill instructions from the Engineer or Owner.

1.45 SUPPLEMENTAL AGREEMENT:

A written agreement executed by the Owner and the Contractor with the consent of the Surety covering major changes and/or revised or new prices and items and supplementing the original Contract.

1.46 SURETY:

The corporate body, licensed under the laws of the state, bound with and for the Contractor for the acceptable performance of the Contract and also for the payment of claims recoverable under the Contract Bonds.

1.47 WORK:

The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

END OF SECTION

SECTION 2 PROPOSAL REQUIREMENTS AND CONDITIONS

2.01 GENERAL QUALIFICATIONS OF BIDDERS:

All bidders acknowledge that a bidder's financial stability, its ability to furnish the necessary equipment and materials throughout the project, and the knowledge, training, and experience of its employees are important to prevent interruption of service and inconvenience to Owner, to protect the environment and public health, and to ensure completion of a quality product in the allotted time.

Bidders shall be licensed as Contractors when required by law, and shall have appropriate specialty designation(s) if required for the project.

Each bidder must be able to submit proof that bidder as an entity[whether the bidder is a person, corporation, partnership, firm, company, or other entity] as well as bidder's supervisory employees [including project superintendent, project manager, and forepersons] have had a minimum of two (2) years' experience immediately preceding the submission of the bid, performing work of a similar scope and complexity. Bidder must be able to present proof that Bidder and its supervisory employees completed this similar work in a satisfactory and safe manner.

Each bidder acknowledges that failure to present proof that Bidder as an entity and Bidder's supervisory employees have satisfactorily performed similar work for at least two (2) years immediately preceding the submission of this bid shall result in rejection of bid.

Each bidder must be able to furnish proof that it owns, or has in its possession and control, appropriate and sufficient equipment to properly and efficiently perform all work required under this contract.

2.02 GENERAL QUALIFICATIONS OF BIDDERS:

The Owner will furnish to Bidders, Specifications containing a blank Proposal Form showing description of the Work contemplated, the approximate estimate of the various quantities of the pay items of the Work to be performed and materials to be furnished, the amount of the Proposal Guaranty, and the date, time, and place of opening of Proposals, and the time in which the Work must be completed. All papers bound with or attached to the Proposal Form are a necessary part thereof and must not be detached or altered.

Failure to submit a subcontracting plan will result in your bid being considered non-responsive.

All bidders shall submit a plan for the use of small and small disadvantaged businesses as subcontractors. The form provided with the Proposal shall be used for this purpose.

2.03 INTERPRETATION OF APPROXIMATE ESTIMATES:

Although the estimate of quantities of work listed in the Proposal Form are the results of calculations made from field surveys or other available information, they are to be considered as only approximate estimates of the quantities of the different pay items and are to be used only as a basis for comparing bids for awarding the Contract.

Such quantities, including the classification thereof, may or may not be representative of the actual conditions encountered during construction and the Owner does not guarantee that the approximate quantities given will hold strictly in the construction of the Work.

Final payment to the Contractor will be made for only the actual quantities of the respective pay items of the Work performed, at the Contract unit prices bid in the Proposal, in accordance with the Plans and Specifications, as finally determined from actual measurements made during the progress or after completion of the Work, and if, upon completion of the Work, the actual quantities of the respective pay items performed shall be more or less than the quantities estimated in the Proposal, the Contract unit prices bid in the Proposal will still prevail, except as otherwise hereinafter provided.

2.04 EXAMINATION OF PLANS AND SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK:

All Bidders are required to examine carefully the site of the proposed Work, the Proposal Form, Plans, General Conditions, Standard Specifications, Supplemental Specifications, Special Provisions, and the Contract and Bond Forms, and it is mutually agreed that the submission of a Proposal shall be prima-facie evidence that the Bidder has made such examination and has judged for and satisfied himself as to the conditions to be encountered as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of Plans, General Conditions, Standard Specifications, Supplemental Specifications, Special Provisions, Contract and Bonds, and as to the contingencies. Bidders shall satisfy themselves that the Work can be completed within the time set forth in the Contract. Bidders shall also familiarize themselves with and shall comply with the requirements of all federal, state, and local laws and ordinances which may directly or indirectly affect the Work or its prosecution, persons engaged in or employed on the Work, and the materials or equipment used in the Work. No adjustments or compensations will be allowed for losses caused by failure to comply with the above requirements.

2.05 PREPARATION OF PROPOSAL:

The Bidder's Proposal must be submitted on the Proposal Form furnished him by the Owner.

The Bidder must specify, with figures, a unit price for each of the separate items for which a quantity is given in the Proposal Form (except when alternate bids are called for on items) and shall show the products of the respective unit prices and the estimated quantities in the columns provided for that purpose, as well as the gross sum for which he will perform all of the estimated work required by these Standard Specifications, Supplemental Specifications, Special Provisions, and the Plans. The Engineer will check the gross sum given in the Proposal, and in case of error or discrepancy, the gross sum obtained by adding the products of the unit prices and the various estimated quantities listed in the Proposal shall prevail and this shall be the Contract Bid Price. The Proposal shall be properly signed by the Bidder.

2.06 IRREGULAR PROPOSALS:

Proposals may be rejected if they contain any omissions, alterations of form, additions not called for, conditional bids, alternate bids unless called for, incomplete bids, erasures or irregularities of any kind. Proposals in which the unit or lump sum prices bid are obviously unbalanced may be rejected.

No alteration of the terms and conditions of the sealed bid which are written upon or appended to the outside of the bid will be accepted or considered.

2.07 PROPOSAL GUARANTY

No Proposal will be considered unless accompanied by a properly certified check or bid bond made payable to the Owner in the amount indicated in the Invitation for Bids. Cashier's checks will not be accepted in lieu thereof. The full amount of the Proposal Guaranty of a Bidder whose Proposal is accepted shall be forfeited to the Owner, in liquidation of damages, in the event of failure of the Bidder to execute Contract and Contract Bonds as stipulated herein.

2.08 DELIVERY OF PROPOSALS:

Each Proposal shall be placed, together with the Proposal Guaranty, in a sealed envelope, on the outside of which is written in large letters "Proposal for (Name of Project)" and so marked as to indicate the Project and the name of the Bidder, and the Bidder General Contractor's license number (where applicable). Proposals may be delivered in person or by mail. When sent by mail, preferably registered, the sealed Proposal, marked as indicated above, shall be enclosed in another envelope for mailing. Proposals will be received by the Owner until the hour of the date set in the Invitation for Bids for the opening thereof. No Proposal will be accepted or considered which has not been received prior to the hour of the opening date.

2.09 WITHDRAWAL OR REVISION OF PROPOSAL:

A Proposal may be withdrawn at any time prior to the hour fixed in the Invitation for Bids for opening of Proposals, provided a request in writing executed by the Bidder or his duly authorized representative is filed with the Owner prior to that time. When such Proposal is reached, it will be returned to the Bidder unopened. No Proposal can be withdrawn, modified or corrected after the hour set for opening such Proposals. Proposals received after the hour set for opening will be returned unopened.

2.10 OPENING OF PROPOSALS:

Proposals will be opened and read publicly, except when directed otherwise by the Owner, at the time and place indicated in the Invitation for Bids. Bidders or their authorized representative are invited to be present at public opening of bids.

2.11 DISQUALIFICATION OF BIDDERS:

If there is reason to believe that collusion exists among the Bidders, any or all Proposals may be rejected, and participants in such collusion may not be considered in future Proposals for the same work.

2.12 LIQUIDATED DAMAGES:

Time is an essential element in the Contract. As the prosecution of the Work will inconvenience the public, obstruct traffic, and interfere with business, it is important that the Work be pressed vigorously to completion. Also, the cost to the Owner for the administration of the Contract, observation, and engineering for the Work under construction will be increased if the time occupied in the Work is lengthened.

Therefore, for each day that the Work remains uncompleted after the time specified in the Contract, or additional time that may be allowed by the Owner for the completion of the Work when extra or additional work is ordered by the Owner, the amount specified in the Contract shall be paid by the Contractor to the Owner as liquidated damages for the loss sustained by the Owner because of failure of the Contractor to complete the Work within the specified time. Liquidated damages will be deducted from partial payments otherwise due the Contractor. The amount of liquidated damages shall be the amount set forth in the Contract.

END OF SECTION

SECTION 3 AWARD AND EXECUTION OF CONTRACT

3.01 CONSIDERATION OF BIDS:

After the Proposals are opened and read, the approximate estimated quantity of each item multiplied by the unit price bid for that item, the products calculated, and the gross sums bid obtained in each of the acceptable Proposals, the Contract Bid Prices will be compared and the results of such comparison will be made available to each Bidder on request. Until the final award of the Contract, however, the Owner reserves the right to reject any and all Proposals, and to waive all technicalities.

3.02 AWARD OF CONTRACT:

The award of the Contract, if it is to be awarded, will be by the Owner to the lowest responsible Bidder whose Proposal shall comply with all the requirements necessary to render it formal. The successful Bidder will be notified by letter, mailed to the address shown on his Proposal, that his bid has been accepted and that he has been awarded the Contract. Award will be made within 60 days after bids are received unless otherwise stated in the Special Provisions. This period may be extended if mutually agreeable to Owner and Contractor.

The Owner, before awarding the Contract, may require a reviewed financial statement. If, in the opinion of the Owner, this statement does not justify the award, the Owner reserves the right to reject the low bid. The reviewed financial statement shall contain, as a minimum, a review of financial statements including performing inquiry and analytical procedures that provide the Owner with a reasonable basis for expressing limited assurance that there are not material modifications that should be made to the statements in order for them to be in conformity with generally accepted accounting principles or, if applicable, with any other comprehensive basis of accounting. The financial statement shall be submitted within 10 days of the Owner's request.

Should it be necessary to eliminate part of the Work in order to award the Contract within the funds available for construction, the Owner reserves the right to designate the portion of the Work to be omitted. The amount of deduction will be determined by multiplying the quantity of items omitted by the unit price or lump sum bid for such items, or by negotiation.

3.03 RETURN OF PROPOSAL GUARANTEE:

All Proposal Guarantees will be returned, if requested, within 30 days following the opening of Proposals; except those of the three lowest Bidders, which will be returned, if requested, after satisfactory bonds have been furnished and the Contract has been executed. The Owner reserves the right to return all Proposal Guarantees by mail and its responsibility shall end upon the mailing thereof.

3.04 EXECUTION OF CONTRACT:

The Contract shall be signed by the successful Bidder and returned to the Engineer with satisfactory Contract Bonds within 10 days after the date of Notice of Award.

3.05 FAILURE TO EXECUTE CONTRACT:

Failure to execute a Contract and file acceptable Contract Bonds within 10 days after the date of Notice of Award shall be just cause for the annulment of the award and the forfeiture of the Proposal Guaranty as liquidation of damages sustained. Award may then be made to the next lowest responsible Bidder or the Work may be readvertised or constructed by day labor, or otherwise contracted as the Owner may decide.

3.06 REQUIREMENTS OF CONTRACT BONDS:

Prior to award of the Contract, the Contractor shall submit to the Owner the name and address of the bonding company for the approval of the Owner.

A Contract Bond, and a Labor and Material Payment Bond, in the forms which are included in the Contract Documents, and each in the sum as herein specified, to be duly executed at the proper time sequence by the successful Bidder as Principal and by a surety company licensed to do business under the laws of the State in which the Work is located, and satisfactory to the Owner, will be required for the faithful performance of the Contract, and the payment for labor and materials. Sureties to be acceptable must be named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. In addition, the surety company must have a rating of A- or better, as rated by A. M. Best Company.

To insure the faithful performance of each and every condition, stipulation, and requirement of the Contract, and to indemnify and save harmless the Owner from any and all damages, either directly or indirectly, arising out of any failure to perform the same, the successful Bidder, to whom the Contract is awarded shall, within 10 days from the date of the award, furnish and file with the Owner an acceptable Contract Bond in the amount equal to 100 percent of the Contract Bid Price of the Contract awarded. In case of default on the part of the Contractor, all expenses incident to ascertaining and collecting losses suffered by the Owner under the bond, including both engineering and legal services, shall lie against the Contract Bond for performance of the Work.

In addition thereto, the successful Bidder to whom the Contract is awarded shall, within 10 days, furnish and file with the Owner an acceptable surety bond for payment of labor, materials, feed-stuffs or supplies payable to the Owner in an amount not less than 100 percent of the Contract Price, with the obligation that the Contractor shall promptly make payment to all persons furnishing him or them with labor, materials, feed-stuffs, or supplies for or in the prosecution of the Work, and for the payment of reasonable attorney's fees incurred by successful claimants or plaintiffs in suits on said Bond.

If at any time, the Owner, for justifiable cause, shall be or become dissatisfied with any surety or sureties upon the Performance or Payment Bonds, the Contractor shall, within 5 days after notice from the Owner, substitute an acceptable bond (or bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The premiums on such bond shall be paid by the Contractor. No further payments to the Contractor shall be deemed due nor shall be made until the new surety or sureties shall have furnished acceptable bond to the Owner.

In lieu of a Contract Bond and a Labor and Material Bond, the Contractor may submit an irrevocable letter of Credit (Appendix K). The letter must be completed and certified by a lending institution satisfactory to the Board. The letter shall be in the amount of 100% of the Contract amount.

3.07 INSURANCE:

- A. General:** The Contractor shall provide insurance in accordance with the required specifications.
- B. Contractor Coverage:** The Contractor shall not commence work under this Contract until he has obtained all insurance required under the following paragraphs and until such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been obtained and approved. If the subcontractor does not take out insurance in his own name, the principal contractor shall provide such insurance protection for the subcontractor and such subcontractor's employees.
- C. Casualty Insurance:** The following insurance coverages (with limits not less than specified herein) shall be maintained by the Contractor for the duration of the Contract, affording coverage for any claim arising out of Contractor's operations herein, whether by the Contractor or by any subcontractor or by any Employee or Agent of either:

1. Claims of employees under Worker's Compensation and other similar employee benefit acts, including claims because of bodily injury, occupational sickness or disease, or death.
2. Claims arising out of bodily injury, sickness, disease, or death of any person other than employee.
3. Claims for damages arising out of libel, slander, false arrest, detention or imprisonment, malicious prosecution, defamation or violation of right of privacy, wrongful entry or eviction or other right of private occupancy, including claims as a result of an offense related to the employment of a claimant by Contractor (so-called "Personal Injury").
4. Claims arising out of damage to or destruction of tangible property, including loss of use.
5. The Contractor shall furnish certification of insurance and policies verifying that the above coverages are in effect before commencing any work, that each policy is endorsed to give the Owner 30 days notice in writing in the event of cancellation or material change therein.

Policies of Insurance shall state that the Owner and the Owner's employees be named as additional insureds on the Contractor's Automobile Liability and Commercial General Liability policies.

In respect to Worker's Compensation, a Waiver of Subrogation shall be issued in favor of the Owner. Where applicable, the U.S. Longshore and Harborworkers Compensation Act Endorsement shall be attached to the policy. Where applicable, the Maritime Coverage Endorsement (to include coverage under Jones Act) shall be attached to the policy. Both the U. S. Longshore and Harborworkers and the Maritime Coverage shall have limits equal to or greater than the employer's liability coverage.

1. Rated by AM Best – A- or better. For nonadmitted companies, a rating of A or better by AM Best.
 - a. At the discretion of the Board, worker's compensation insurance may be placed through a qualified worker's compensation self-insurance fund.

b. Limits of Liability:

<u>Type of Insurance</u>	<u>Bodily Injury</u>
Worker's Compensation	Statutory
Employers' Liability	\$500,000 Each Accident;
Disease,	\$500,000 By Policy Lmt
	\$500,000 Disease, Each Employee
Commercial Automobile	\$1,000,000 Each Accident.
	Bodily Injury and Property Damage Combined
	Business auto includes all owned, leased, hired and non-owned automobiles.

Commercial General Liability:

\$1,000,000 per Occurrence
\$1,000,000 Personal &
Advertising Injury
\$2,000,000 General
Aggregate per project
\$2,000,000 Products &
Completed Operations
Aggregate
\$100,000 fire damage liability

Umbrella Liability:

In addition to the basic limits previously set out for Commercial General Liability, Products and Completed Operations, Automobile Liability and Worker's Compensation and Employer's Liability, Contractors shall provide Umbrella Liability limits of \$5,000,000 per occurrence and aggregate.

Coverage shall be issued with a "pay on behalf of" wording, including Personal Injury and other extensions, and provide coverage at least as broad as that afforded by the primary insurance policies.

Extensions:

Blanket Contractual Liability
Personal Injury
Blanket Collapse and Underground
Coverage
Broad Form Property (including Completed
Operations)
Employees as Additional Insureds
Host Liquor Liability
Non-owned Watercraft Liability
Worldwide Products
Fire Legal Liability
Incidental Medical Malpractice
Extended Bodily Injury (Assault and Battery)
Newly Acquired Organizations

When and if the use of explosives for blasting purposes appears necessary or desirable, such methods shall not be undertaken without written authorization of the Owner, and then only provided that acceptable extensions of liability coverage have been obtained specifically to include the explosion ("X") hazard and the collapse ("C") hazard.

B. Owner's Protective Liability: The Contractor shall furnish from a carrier acceptable to the Owner, a policy of liability insurance, commonly called "Owner's Protective Liability" in the name of the Board of Water and Sewer Commissioners of the City of Mobile, d/b/a MAWSS, providing "Independent Contractor's Coverage" for the operations embraced by this Contract with limits of \$1,000,000 bodily injury and \$1,000,000 property damage. Policy shall be endorsed that the premium is to be paid by the named Contractor

C. Property Insurance Contractor

1. The Contractor shall assume complete responsibility for safe-guarding all portions of the Work in progress, whether completed or not, until such work has been accepted by the Owner, and shall maintain such insurance to protect himself against perils which may cause such property to be damaged or destroyed. This coverage shall be similar to the former All Risks of Physical Loss Form, including, if available, Collapse. Title to such work in progress, whether completed or not, shall remain vested in the Contractor until finally accepted by the Owner.
2. Coverage Form. Coverage shall be provided on an actual completed value Builder's Risk Form or, if more appropriate, an installation floater in the joint name of the Contractor and Owner for the duration of the Contract.
3. The Owner has the option of providing Builder's Risk coverage for any projects undertaken by a Contractor. If the Owner exercises this option, the Contract Proposal will appropriately indicate this and provide for separately showing the cost of the Builder's Risk coverage in the Bid.

3.08 INDEMNITY PROVISIONS:

The Contractor shall indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses, demands, payments, suits, actions, recoveries and judgments of every nature and description and expenses including attorney's fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense: (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom; and (2) is caused in whole or in part by a 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.

The Contractor shall assume all risk and bear any loss or injury to property or persons occasioned by neglect or accident during the progress of Work until the same shall have been completed and accepted. He shall also assume all blame or loss by reason of neglect or violation of any state or federal law or municipal rule, regulation or order. The Contractor shall give to the proper authorities all required notices relating to the Work, obtain all official permits and licenses and pay all proper fees. He shall make good any injury that may have occurred to any adjoining building, structure or utility in consequence of the Work.

In any and all claims against the Owner or the Engineer or any of their agents or employees by any 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 the "INDEMNITY PROVISIONS" shall not be limited in any way by any limitation on the amount or types of damages, compensation or benefits payable by or for the Contractor or any subcontractor under workmen's compensation acts, disability benefit acts or other employee benefit acts.

The obligations of the Contractor under Paragraph 3.08 shall not extend to the liability of the Engineer's negligent acts, errors or omissions, or those of this employees or agents.

END OF SECTION

SECTION 4 SCOPE OF WORK

4.01 INTENT OF PLANS AND SPECIFICATIONS:

The true intent of the Plans, Specifications, and Special Provisions is to prescribe a complete Work or improvement which the Contractor undertakes to do, complete in every detail, in full compliance with the Plans, General Conditions, these Specifications, the Supplemental Specifications, the Special Provisions, Proposal, Contract and Invitation for Bids, together with all authorized alterations, Supplemental Agreements and Extra Work Orders. The Contractor shall perform all items of the Work covered and stipulated in the Contract, Specifications, and Plans, shall remove all obstructions from the right of way, and shall do such special, additional, extra, and incidental work as may be considered necessary to complete the Work and its appurtenances, or structures, to the finished lines, grades, cross sections and dimensions shown on the Plans or as modified by written orders of the Engineer, in a satisfactory and acceptable manner. The Contractor shall furnish, unless definitely and expressly provided to the contrary in the Proposal, Special Provisions or Plans, all material, implements, machinery, equipment, tools, supplies, transportation and labor necessary to the prosecution and completion of the Work.

4.02 UNDERGROUND AND EXISTING UTILITIES:

The Plans show structures, certain features of the topography, and certain underground utilities, but they do not purport to show all features, lines, or obstructions. Such topography and notes in the Plans were inserted from records available and are for the Contractor's convenience only. The Contractor shall verify the existence and location of surface topography, underground structures, and utilities to assure conflicts will be avoided in the construction of this Work. The Contractor shall conduct prudent underground explorations in advance of his work in order to make adjustments to the Work if necessary.

The Contractor shall protect, maintain and keep in service all exiting utilities and service connections during construction operations. Any existing utility lines cut or damaged shall be repaired immediately and the service restored at the Contractor's expense.

4.03 ALTERATION OF PLANS OR CHARACTER OF WORK:

The Owner or his authorized representative may without notice to the Surety make, without change in the unit prices, alterations in the Plans or in the nature of the Work which they may consider necessary or desirable during the progress of the Work to complete fully and acceptably the proposed construction, provided that such alterations do not materially change the general features of the original Plans and Specifications. Material changes shall be understood to mean those changes in the original Plans and Specifications made necessary by the exigencies of the Work resulting in the alteration of cost to the Contractor by an amount which could not have been foreseen at the time of his bidding upon the Work. The Owner reserves the right for the Engineer to revise any part of the alignment, grades, structures, width, and other dimension on the Work, if the Engineer deems it advisable and such changes shall not be considered material changes. The Owner also reserves the right for the Engineer to increase or decrease the quantity of any or all of the items listed in the estimate of approximate quantities in the Proposal Form and such increase or decrease shall not be considered as a waiver of any of the conditions of the Contract or Contract Bonds.

4.04 EXTRA WORK:

In connection with the Work covered by the Contract, the Owner or his authorized representative may at any time during its progress order other work or materials incidental thereto. If any such work and material is not listed as a pay item with a Contract Unit Bid Price or if compensation therefor is not included in the Contract unit prices bid for other pay items under the terms of the Contract, it will be designated as Extra

Work, and shall be performed by the Contractor as directed, provided, however, that before any Extra Work is started the Engineer shall furnish the Contractor a Proposal Form, stating the location, kind and estimated quantity of Extra Work to be done. The Contractor shall indicate on this Proposal Form the compensation (unit price, or lump sum) for which he will perform the Extra Work and this Proposal shall be submitted to the Owner for approval. The Owner may approve the Proposal, in which case it shall be an authorization for doing the Work and shall become a part of the Contract, but if the Owner considers the price submitted for any item of the Extra Work excessive and a satisfactory adjustment price cannot be reached for such item, it shall be optional with the Owner to terminate the Contract insofar as it applies to such item or Extra Work in question and perform such Extra Work by other agents or other means or to direct that the Contractor performs the Work on a "Force Account" basis. Claims for payment for Extra Work not so authorized may be rejected by the Owner.

4.05 CONSTRUCTION AND MAINTENANCE OF DETOURS:

No road or section of road shall be closed to traffic except with the written permission of the Engineer and the governing authority, and no construction operations that will in any way inconvenience the traveling public shall be started until adequate provisions have been made to detour or bypass traffic in safety and comfort. All detours shall be approved by the Highway Department, City Engineer or the official having jurisdiction over the roads or streets.

The Contractor shall maintain all detours for traffic over the Work. Unless otherwise provided in the Special Provisions, the road, while undergoing improvement, shall be kept continuously open to public traffic and in passable and safe condition. allowed for losses caused by failure to comply with the above requirements.

When the Contractor hauls materials over any detour or public road, he shall so regulate his loads that the capacity of the road and its structures is not exceeded and he shall be responsible for any specific damage that may result to the road or its structures from failure to observe regulations governing traffic thereon.

4.06 REMOVAL AND DISPOSAL OF STRUCTURES AND OBSTRUCTIONS

Unless otherwise provided, the Contractor shall remove at his expense any existing above or below-ground structure or part of structure, fence, building, or other encumbrance or obstruction upon or within the limits of the Work, which interferes in any way with the new construction. Compensation for the removal of any structure not listed as a pay item in the Proposal with a Contract Bid Price shall be included in the Contract unit prices bid for the pay items of the Work.

4.07 FINAL CLEAN-UP:

Upon completion and before Work will be finally accepted and final payment made, the Contractor shall clean and remove from the Work and adjacent property, stream channels, sites of structures, and all areas occupied by him in connection with the Work, all weeds, shrubs, stumps, portions of trees, and all other forms of objectionable organic matter; all useless, surplus, excavated or discarded materials; and all loose rock, boulders, falsework, temporary structures, machinery and equipment. He shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the Work and shall leave the Work and sites of structures in a neat presentable condition throughout the Project. Depositing any material on abutting property with or without the consent of the property owner will not be considered a satisfactory method of disposal.

END OF SECTION

SECTION 5 CONTROL OF WORK

5.01 AUTHORITY OF THE ENGINEER

To prevent misunderstandings, disputes, and litigation, the Engineer shall decide any and all questions which arise concerning the quality and acceptability of materials furnished and work performed, the rate of progress of the Work, interpretation of the Plans and Specifications, and the acceptable fulfillment of the Contract on the part of the Contractor. The Engineer will determine the amount, quantity, classification, and quality of the several kinds of work performed and materials furnished which are to be paid for under the Contract and his decision and estimate shall be conclusive and binding on both parties thereto and such decision and estimate of the Engineer, in case any questions arise, shall be a condition precedent to the right of the Contractor to receive any money due him under the Contract. Explanations concerning the meaning of the Plans and Specifications and Contract, all directions necessary to complete or make definite the Plans, Special Provisions, Specifications or Contract and to give them due effect, will be given by the Engineer and his findings shall be final and binding on both parties hereto. The Engineer shall have authority to enforce and make effective decisions and orders as apply to conformance with the Contract. He shall decide disputes and mutual rights between Contractors.

Notwithstanding any general clauses, wording, paragraphs, or other references contained in the Plans, Specifications, General Conditions, or elsewhere in the Special Provisions, the Engineer and his Resident Project Representative are not charged with the responsibility of directing the actual procedures and detail methods of construction to be used by the Contractor in accomplishing the Work contained in the Contract between the Owner and the Contractor; nor is the Engineer responsible to act as superintendent, foreman, or safety engineer for the Contractor, nor for the safety of the Contractor's personnel.

5.02 PLANS AND SHOP DRAWINGS:

General drawings, showing such details as are necessary to give a comprehensive idea of the construction contemplated will be included in the approved Plans. The approved Plans will be supplemented by such working drawings as are necessary to adequately define the Work. It is mutually agreed that all authorized alterations affecting the requirements and information given on the approved Plans shall be in writing.

After checking and verifying all field measurements, Contractor shall submit to Engineer for review, five copies of all Shop Drawings, plus the number of copies Contractor wishes to have returned to him after Engineer's review, collated according to the organization of the accepted schedule of Shop Drawings, which will bear a stamp or specific written indication that Contractor has satisfied Contractor's responsibilities under the Contract with respect to Contractor's review of the submission. All submissions will be identified as "Shop Drawings" on the outermost enclosure and show Project name and Engineer's Project number. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, descriptive data, diagrams specified performance, design criteria, materials, and similar data to enable Engineer to review the information as required.

Contractor shall also submit to Engineer for review and approval, with such promptness as to cause no delay in Work, all samples required by the Contract. All samples will have been checked by and accompanied by a specific written indication that Contractor has satisfied Contractor's responsibilities under the Contract with respect to the review of the submission and will be identified clearly as to material, supplier, pertinent data such as catalog numbers, and the use for which intended.

Before submission of each Shop Drawing or sample, Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract.

At the time of each submission, Contractor shall give Engineer specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract, and, in addition, shall cause a specific notation to be made on each Shop Drawing submittal to Engineer for review and approval of each such variation. When the Contractor does call such deviation to the attention of the Engineer the Contractor shall state in his letter whether or not such deviations involve deductions or extra cost adjustments.

Engineer will review with reasonable promptness Shop Drawings and samples, but Engineer's review will be only for conformance with the design concept of the Project and for compliance with the methods, techniques, sequences, or procedures of construction (except where a specific means, method, technique, sequence, or procedure of construction is indicated in or required by the Contract Documents). The review of a separate item will not indicate approval of the assembly in which the item functions. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new samples for review. Contractor shall direct specific attention in writing to revisions other than the corrections called for by the Engineer on previous submittal.

Engineer's review of Shop Drawings or samples shall not relieve Contractor from responsibility for any variation from the requirements of the Contract unless Contractor has, in writing, called Engineer's attention to each such variation at the time of submission, and Engineer has given written approval of each such variation by a specific

Written notation thereof incorporated in or accompanying the Shop Drawings or sample; nor will any review by Engineer relieve Contractor from responsibility for errors or omissions in the Shop Drawings.

The Contractor shall furnish five complete sets of the corrected copies of Shop Drawings including parts list, operation and maintenance manuals, lubrication charts and descriptive literature for all equipment. No payment shall be made to the Contractor for any specialties or equipment unless Shop Drawings have been approved by the Engineer. Final payment under the Contract will not be made until all specified documents have been submitted for equipment.

Compensation for furnishing all Shop Drawings and samples shall be included in the Contract Unit Prices for the pay items of the Work and such Drawings and samples shall be furnished by the Contractor without additional compensation.

5.03 MANUFACTURER DRAWINGS:

The manufacturer's drawings of any special materials required for the job shall be submitted to the Engineer for review prior to installation.

5.04 CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS:

Finished work in all cases shall conform with lines, grades, sections, details and dimensions of the Work contemplated as shown on the approved Plans except as modified in writing by the Engineer. Any deviation from the approved Plans and working drawings that may be required by the exigencies of the construction, will be determined by the Engineer and authorized in writing.

In cases where minor deviations within the limits shown on the Plans or contained in the Specifications will be in the best interest of the Owner or present a more finished or aesthetic appearance, then the Contractor shall notify the Engineer or his representative before the Work progresses to a point where the change cannot be effected without incurring additional expense to the Owner.

5.05 COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS:

The Specifications, Supplemental Specifications, General Conditions, Plans, Special Provisions, and all supplementary documents are essential parts of the Contract, and 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, figured dimensions, unless obviously incorrect, shall govern over the scaled dimensions. Supplemental Specifications shall govern over the Standard Specifications. Plans shall govern over Specifications; Special Provisions shall govern over both Specifications, Supplemental Specifications and Plans.

The Contractor shall take no advantage of, and shall promptly notify the Engineer if he discovers, any error or omission of dimensions in the Plans, or of any discrepancy between the Plans and Specifications. The Engineer will make such corrections and supply such omitted dimensions as may be necessary and his interpretation shall be final.

When supplementary specifications such as Federal, ASTM, ANSI, AASHTO, AWWA, etc., are referenced in these Specifications, such references shall be the latest edition of such supplementary specifications.

5.06 COOPERATION OF THE CONTRACTOR:

The Contractor will be supplied with no more than four copies of the Plans, Specifications, Supplemental Specifications, and Special Provisions. If additional copies of documents are required, the Contractor shall reimburse the Engineer for the actual cost of reproduction of documents as requested.

The Contractor shall have available on the Work, at all times, one copy of each of said Plans, Specifications, Supplemental Specifications, and Special Provisions. He shall give the Work the constant attention necessary to facilitate the progress thereof and shall cooperate with the Engineer, Engineer's Resident Project Representative, and with other Contractors in every way possible.

The Contractor shall at all times have a competent Superintendent on the Work, capable of reading and thoroughly understanding the Plans and Specifications, as his agent on the Work, with full authority to execute the Work without delay and to supply promptly such materials, tools, plant equipment, and labor as may be required. Such Superintendent shall be furnished irrespective of the amount of work subcontracted and shall have authority over all subcontract work.

The Contractor shall schedule and conduct his work and dispose of his material so as to avoid causing unnecessary inconvenience and delay to other Contractors engaged on adjacent work and so as to join his work to that of other Contractors in a proper manner, and in accordance with the spirit of the Plans and Specifications, and so as to perform his work in the proper sequence in relation to that of other adjacent work. Each Contractor shall so conduct his operation and maintain the Work in such condition that adequate drainage shall be effected at all times.

It is mutually agreed that in case of a dispute arising between two or more Contractors engaged on the same work as to the respective rights of each under these Specifications, the Engineer shall determine the matters at issue and shall define the respective rights of the various interests involved in order to secure completion of all part of the Work in general harmony and with satisfactory results, and his decision shall be final and binding on all parties concerned and shall not in any way be cause for claims for extra compensation by any of the parties.

5.07 CONSTRUCTION SURVEYS:

The Engineer will establish bench marks and horizontal control points. From these points, Contractor shall lay out the Work by establishing all lines and grades at the site necessary to control the Work and shall be responsible for all measurements that may be required for the execution of the Work. Second order leveling shall be used by the Contractor in establishing elevations, and all levels shall be looped in or closed. All survey data shall be recorded in accordance with standard and approved methods. All field notes, sketches,

and computations made by the Contractor in establishing control points for his work shall be available to the Engineer at all times.

The Contractor shall furnish, at his expense, all stakes, pins, platforms, equipment and labor as may be required in laying out any part of the Work from the control points established by the Engineer. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other markers established by him until authorized to remove them. If any of the control points established by the Engineer are destroyed by or through negligence of the Contractor, they may be replaced by the Engineer, and the expense of replacement will be deducted from any amount due or which may become due the Contractor.

5.08 RESIDENT PROJECT REPRESENTATIVES:

The Engineer may appoint such Representatives as he desires, and they shall be granted full access to the Work and to mills and factories in which material is being prepared for use under the Contract. They shall have authority to request compliance with terms of the Contract, to approve or reject materials, to make measurements of quantities, to keep records of costs, and otherwise represent the Engineer. The Contractor may appeal from their decisions to the Engineer, pending settlement but no work shall be done in any manner contrary to the Contract on items affected by such appeal. If the Contractor refuses to comply with instruction of the Representative to fulfill the requirements of the Contract, the Representative shall, if possible, immediately notify his immediate superior and obtain instructions. Failing in this, if the Contractor refuses to suspend operations on verbal order, he shall issue a written order suspending the Work on items affected, giving in detail the reasons for suspension. Immediately after placing the order in the hands of the person in charge for the Contractor, he shall report to his immediate superior, or in his absence to the Engineer, for further instructions.

Representatives shall not be authorized to revoke, alter, enlarge, relax or release any requirements of the Special Provisions, Specifications, or Contract; to approve or accept any portion of the Work; nor to issue instruction contrary to the Plans and Specifications; nor shall they act as superintendent, foreman, or safety engineer for the Contractor nor for the safety of the Contractor's personnel; or interfere with the management of the Work. Any advice which they may give the Contractor shall not be construed as binding the Owner in any way, nor releasing the Contractor from fulfilling all the terms of the Contract.

5.09 INSPECTION:

All materials and workmanship shall be subject to inspection, examination, and test by the Representatives of the Owner, or the Engineer, at any and all times. The Owner, or the Engineer, shall have the right to reject defective materials and workmanship or require correction thereof. Rejected materials shall be promptly and satisfactorily replaced with proper materials and rejected workmanship shall be promptly and satisfactorily corrected. If the Contractor fails to proceed at once with the replacement of rejected materials or the correction of rejected workmanship, the Owner may, by contract or otherwise, replace such materials or correct such workmanship and charge the cost thereof to the Contractor. Failure of Representative to find defects or to request removals shall in no way relieve the Contractor of responsibility.

The Contractor shall furnish the Engineer with every reasonable facility for ascertaining whether or not the Work performed and materials used are in accordance with the requirements and intent of the Specifications and Contract. At any time before final acceptance of the Work, the Contractor shall, if the Engineer requests, remove and uncover such portions of the finished work as the Engineer may direct. After the examination, the Contractor shall restore said portions of the Work to the standard required by the Contract. If the work thus exposed or examined proves acceptable, the uncovering or removing and replacing of the covering or making good of the parts removed, shall be paid for as Extra Work, but, if the work so exposed or examined

proves unacceptable, no compensation will be allowed the Contractor for the uncovering or removing and the replacing of the covering or making good of the parts removed. No work shall be done nor material used without suitable inspection by the Engineer, or his representative.

Failure to find or reject any defective work or material shall not prevent later rejection when such defect be discovered or obligate the Owner to Final Acceptance

5.10 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK:

All work which has been rejected shall be remedied, or else removed and replaced in an acceptable manner by the Contractor at his own expense, and no compensation shall be allowed him for such removal or replacement. Any work done without the lines and grades shown on the Plans or as given, except as herein provided, or any Extra Work done without written authority will be considered as unauthorized and at the expense of the Contractor and will not be measured or paid for. Unauthorized work shall be removed and replaced at the Contractor's expense. Upon failure on the part of the Contractor to immediately comply with any order of the Engineer made under the provisions of this Section, the Owner shall have authority to cause defective work to be remedied, or removed and replaced, and unauthorized work to be removed and to deduct the cost from any monies due or to become due the Contractor. In case no such monies are available, the amount shall be charged against the Contractor's Surety.

5.11 DISPUTED CLAIMS:

In any case where the Contractor wishes to make claim to the Owner for extra compensation for work or materials he deems not clearly covered in the Contract or not ordered by the Engineer as Extra Work, the Contractor shall notify the Engineer or the Owner in writing, of his intention to make claim for such extra compensation, before he begins the work on which he bases his claim. If such notice is not given, or if the notice is given and the Engineer is not afforded proper facilities for keeping strict account of the actual cost to the Contractor, then the contractor hereby agrees to waive claim for

such extra compensation. Such notice by the Contractor, and the fact that the Engineer has kept account of the cost shall in no way be construed as establishing the validity of the claim. When the work has been completed, the Contractor shall immediately file his claim with the Engineer.

5.12 CONTRACTOR INITIATED CHANGES:

The Contractor and his subcontractor must submit in writing any requests for modifications to the Plans and Specifications. Shop Drawings that are submitted to the Engineer for his review do not constitute "in writing" unless it is brought to the attention of the Engineer that specific changes are being suggested.

5.13 PROJECT COMPLETION:

The Work shall be complete when all pay items and any Extra Work to be performed under this Contract is performed in its entirety and in accordance with contractual requirements.

5.14 FINAL CONSTRUCTION INSPECTION:

Whenever the Engineer considers the Work provided and contemplated by the Contract is nearing completion, or within 10 days after being notified by the Contractor that the Work is completed, the Engineer will inspect all the Work included in the Contract. If the Engineer finds that the Work has not been satisfactorily completed at the time of such inspection, he shall advise the Contractor in writing as to the Work to be done or the particular defects to be remedied. When these defects have been remedied and the Work has been satisfactorily completed the Engineer shall make the Final Inspection, and shall notify the Contractor in writing that the Final Inspection has been made and that time charges end on the day of Final Inspection. Maintenance Period shall start on the day after this Final Inspection.

5.15 FINAL ACCEPTANCE:

After the Final Inspection is made as outlined above, the Contractor shall maintain the Work for 30 days in the same manner as set forth under "Maintenance of the Work During Construction." The Work will be finally accepted at the end of the 30 day maintenance period provided all work has been satisfactorily maintained.

The Contractor, immediately after receiving the letter of Final Inspection, shall give notice of said completion of Work by an advertisement in some newspaper of general circulation published within the city or county wherein the Work has been done for a period of four successive weeks. Proof of publication of said notice shall be made by the Contractor to the Owner, by affidavit of the publisher and a printed copy of the notice published. If no newspaper is published in the county where the Work is done, the notice may be given by posting at the Court House for 30 days and proof of same shall be made by the probate judge or sheriff and the Contractor.

In no instance shall a final settlement be made upon the Contractor until the expiration of the Maintenance Period and until the Contract is completed and Project accepted by the Owner.

5.10 MAINTENANCE GUARANTEE AFTER ACCEPTANCE:

Neither the final certificate of payment nor any provisions in the Contract, nor partial or entire use or occupancy of the premises by the Owner shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the Work and pay for any damage to other work resulting therefrom which shall appear within a period of two years from the date of final acceptance of the Work unless specified otherwise by the Owner. The Owner will give notice of observed defects with reasonable promptness and the Contractor shall repair the defects immediately. The Contractor's Performance or Contract Bond shall remain in effect and cover this guarantee. After completion of the Project and prior to final acceptance, the Contractor shall provide a statement addressed to the Owner from his/her Surety acknowledging that the Contract Bonds will remain in effect during the two year warranty period or as otherwise required by the Owner. Final payment under the contract will not be made until this statement is received.

For projects involving the lining of sewer mains and laterals, a five year warranty shall be provided in lieu of a two year warranty. The requirements stated above for a two year warranty shall also hold true for the five year warranty.

5.17 CONTRACT CLOSEOUT DOCUMENTS:

The Contractor shall complete and submit to the Engineer the following contract closeout requirements:

- A. The Contractor's advertisement of Notice of Completion.
- B. The Contractor's Affidavit of Payment of Claims and Debts.
- C. The Contractor's Consent of Surety Company to Final Payment.
- D. The Contractor's letter acknowledging that acceptance of final payment constitutes a waiver of all claims, present or future, in connection with the referenced project.
- E. The Contractor's letter of guarantee that all defects in materials and workmanship for a period of two years, or as otherwise specified by the Owner, commencing on the date of final acceptance and acknowledgment that the Contractor's Material and Performance Bond shall remain in effect to cover this guarantee period.
- F. One set of Record Drawings and video, where required, neatly marked with all changes for quantity computation for all changes.

END OF SECTION

SECTION 6 CONTROL OF MATERIAL

6.01 SOURCE OF SUPPLY AND QUALITY OF MATERIALS:

All materials proposed to be used may be inspected or tested at any time during their preparation and use. Only materials conforming to the requirements of the Specifications shall be incorporated in the Work. Material which has become in any way unfit for use, shall not be used in the Work. Any material which has become mixed with or coated by dirt or other foreign substance shall not be used in the Work.

The source of supply of each of the materials shall be approved by the Owner's representative before the delivery is made to any section of the Work. When so indicated or directed, representative preliminary samples of character and quality shall be submitted for examination or test, and written approval of the quality of such samples must be received by the Contractor prior to obtaining materials from the respective sources of supply.

6.02 SAMPLES AND TESTS:

Inspection and tests will be conducted promptly but the Contractor shall notify the Owner's representative, in writing, immediately on the placing of orders for materials, giving the source and the dates when shipments are to be made. Materials to be tested will be sampled by the authorized representative, upon delivery, or at any time before use and acceptance or rejection will be based on the test of such samples.

In any event, material actually incorporated in the construction must meet the requirements of the Contract. The Contractor shall afford such facilities for collecting and forwarding samples; but shall not make use of nor incorporate in the Work any material represented by the samples until the tests have been made and the materials found acceptable in accordance with the requirements of the Contract. The Contractor in all cases shall furnish the required samples without charge.

When tests are made at the source of production, the producer shall furnish every reasonable facility for the performance of the tests and for the protection of testing equipment and supplies, and shall permit the Owner's representative to have free access to all parts of the plant to enable adequate inspection and selection of samples. Sources of supply of bituminous material shall have adequate testing facilities and satisfactory laboratory equipment, which equipment shall meet the requirements of the standard methods mentioned in the Specifications.

6.03 STORAGE OF MATERIALS:

Materials shall be stored so as to insure the preservation of their quality and fitness for the Work in a manner as recommended by the manufacturer and approved by the Engineer. Materials in storage shall be so arranged as to facilitate prompt inspection. Stored materials even though approved before storage may be inspected prior to their use in the Work and shall meet the requirements of the Specifications at the time they are incorporated in the Work.

Materials shall be stored only where specifically permitted. Stockpiling of construction materials shall be confined to such cleared areas as may be approved. Private property shall not be used without written permission of the property owner or lessee.

6.04 DEFECTIVE MATERIALS

All materials not conforming to the requirements of the Contract shall be considered as defective and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the site of the Work. Defective materials discovered in the process of the Work will be rejected. All defective material shall be replaced by the Contractor at his expense. No rejected materials, the defects of which have been subsequently corrected, shall be used until written approval has been given by the Owner's representative. Upon the failure of the Contractor to comply at once with any order under the provisions of this Section, the

Owner shall have authority to remove and replace defective material and to deduct cost of removal and replacement from any monies due or which may become due the Contractor or his Surety.

6.05 CONTRACTOR'S TITLE TO MATERIALS:

No materials or supplies for the Work shall be purchased by the Contractor or by any subcontractor subject to any chattel mortgage or order and conditional sale contract 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, free from all liens, claims, or encumbrances.

END OF SECTION

SECTION 7 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

7.01 LAWS TO BE OBSERVED:

The Contractor shall at all times observe and comply with all federal, state, and local laws, ordinances, orders, decrees, and regulations existing or enacted subsequently to the execution of the Contract which in any manner affect the prosecution of the Work. The Contractor and his Surety shall indemnify and save harmless the Owner and all their representatives, agents, and employees against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself, his employees, or his subcontractors.

7.02 PERMITS, TAXES, LICENSES, LAWS AND ORDINANCES:

The Contractor shall procure all permits, certificates, and licenses, pay all charges, royalties and fees, and give all notices necessary and incident to the due and lawful prosecution of the Work. The Contractor shall pay all applicable federal, state, and local sales, use or other category of tax that may be imposed. He shall comply with all federal, state and local laws, ordinances or rules and regulations relating to the performance of the Work.

A permit must be obtained from the MAWSS engineering department prior to any construction activity taking place within easements or rights-of-way which contain water and/or sanitary sewer mains. Application for the permit must be in the form specified. A detailed set of plans and specifications must be submitted with the application. Following a review of the plans, MAWSS will issue a permit for the construction activity. The permit may be issued subject to the modification of the plans to include provisions to safeguard the sanitary sewer system from damage during construction and to minimize the possibility of future maintenance activities.

7.03 PATENTED DEVICES, MATERIALS AND PROCESSES:

If the Contractor is required or desires to use any design, device, material, or process covered by letters, patents or copyrights, he shall arrange and provide for such use by suitable agreement with the patentee or owner, and a copy of the agreement shall be filed with the Owner. Whether or not such agreement is made or filed, the Contractor and the Surety shall indemnify and save harmless the Owner, the Engineer, and all their authorized representatives from any and all suits, costs, penalties, or claims for infringement by reason of the use of any such patented design, device, material, or process, or any trademark or copyright in connection with the Work agreed to be performed under the Contract, and shall indemnify the Owner, the Engineer and all their authorized representatives for any costs, expenses, and damages which he or they may be obligated to pay by reason of such infringement or alleged infringement at any time during the prosecution or after the completion of the Work..

7.04 SANITARY PROVISIONS:

The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his employees as may be necessary to comply with the rules and regulations of the State Board of Health or of other authorities having jurisdiction, and shall permit no public nuisance.

7.05 PUBLIC CONVENIENCE AND SAFETY

No road or street shall be closed by the Contractor to the public except by written permission of the authority having jurisdiction, and except while so closed, the Contractor shall maintain traffic over, through or around the Work included in this Contract, with the maximum practical convenience, for the full 24 hours of each day of the Contract, whether or not work has ceased temporarily. The Contractor shall notify the Engineer at the earliest possible date after the Contract has

been executed, and in any case before the starting of any construction that might in any way inconvenience or endanger traffic, so that the necessary arrangements may be determined.

The convenience of the general public and of residents along the road shall be provided for in a reasonably adequate and satisfactory manner. Where existing roads are not available for use as detours, unless otherwise provided in the Special Provisions, all traffic shall be permitted to pass through the Work. The Contractor shall provide and maintain at his own expense such temporary roads as may be necessary to provide convenient access to driveways, houses, buildings, or other property abutting the Work under construction, as well as temporary approaches to, and crossings of, intersecting roads.

The Contractor shall arrange his work so that no undue and prolonged blocking of business establishments will occur.

Whenever possible all materials unloaded on the job site will be placed in an area well away from the traveling public in order to avoid hazardous conditions.

In order that all unnecessary delay to the traveling public may be avoided, the Contractor shall provide and station competent flagmen whose sole duties shall consist of directing and controlling the movement of public traffic either through or around the Work.

Fire hydrants shall be accessible at all times to the Fire Department. No materials or other obstruction shall be placed closer to a fire hydrant than permitted by ordinances, rules or regulations, or within 5 feet of a fire hydrant, in the absence of such ordinances, rules, or regulations. In case of city or town work, the Contractor shall give the Chief of the Fire Department, City Engineer, and other appropriate local officials at least 24 hours notice in writing before it becomes necessary to obstruct a cross street.

No work of any character shall be commenced on the railroad right of way until the Railroad Company has been duly notified by the Contractor of the date he proposes to begin work and until an authorized representative of the Railroad Company is present, unless the Railroad Company waives such requirement.

7.07 INGRESS AND EGRESS:

businesses, public and private buildings, and other facilities, the Contractor shall plan his work to afford access to property abutting the Work at all times except when absolutely necessary, including providing immediate backfill of pipe, shells for temporary surfacing, and adequate signing and flagmen to control and direct traffic. The Contractor shall submit his method of operation for approval before starting work on the Project. There will be no direct payment for this Work, with payment included in the bid for other items of work in the Contract.

7.08 BARRICADES, DANGER, WARNING AND DETOUR SIGNS

The Contractor shall at his own expense, provide, erect, paint and maintain all necessary barricades of the material and design to meet the requirements of the State Highway Department, Public Works Department, City Engineering Department, or other officials having jurisdiction. Also, at his own expense, the Contractor shall provide suitable and sufficient red lights, torches, reflectors or other danger signals and signs, provide a sufficient number of watchmen and take all the necessary precautions for the protection of the Work and safety of the public. The Contractor shall erect warning signs beyond the limits of the Project as required, but at least 300 feet beyond each end of the Project and at least 300 feet in advance of any place on the Project where operations interfere with the use of the road by traffic. Barricades shall be kept well painted, and suitable warning signs shall be placed thereon. All barricades and obstructions shall be illuminated at night and all lights or devices for this purpose shall be kept burning from sunset to sunrise.

7.09 PRESERVATION AND RESTORATION OF PROPERTY, TREES, MONUMENTS, ETC:

The Contractor shall not enter upon private property for any purpose without first obtaining permission from the Owners and the lessees. The Contractor shall be responsible for the preservation of all public and private property, monuments, signs, telephone lines, roads, highways, streets, other utilities, etc., along and adjacent to the Project; shall use every precaution necessary to prevent damage to pipes, conduits and other underground structures; and shall protect carefully from disturbance or damage all land monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed. The Contractor must obtain all necessary information in regard to existing utilities and shall give notice in writing to the Owners or proper authorities in charge of streets, gas and water pipes, electric and other conduits, railways, poles and pole lines, manholes, catch basins, fixtures, appurtenances, and all other property that may be affected by the Contractor's operations at least 48 hours before his operations will affect such property. The Contractor shall not hinder or interfere with any person in the protection of such work, or with the operation of utilities at any time.

The Contractor shall not remove, injure, cut or destroy trees, shrubs, or plants that are to remain on the streets or those which are privately owned without proper authority.

When or where any direct or indirect damage or injury is done to public or private property by or as a result of any act, omission, neglect, or otherwise of the Contractor, he shall make good such damage or injury in an acceptable manner.

The Contractor shall examine all bridges and culverts, on or near the Work, over which he will move his materials, implements or equipment and shall take such precautions as are necessary to properly strengthen such structures to prevent damage before he uses them. The Contractor shall be responsible for any and all damages, caused by his operation to such bridges and culverts.

7.10 RESPONSIBILITY FOR DAMAGE CLAIMS, ETC:

The Contractor and Surety shall save harmless the Owner and all his representatives from all suits, actions, or claims of any character brought on account of any injuries or damages sustained by any person or property in consequence of performing any work in connection with this Project, or of any neglect in safeguarding the Work, or of any delay in completing the Work or of the use of any unacceptable or defective materials, or of any other act or omission either similar or dissimilar to the above enumerated acts, by said Contractor or his agent by which any person or property is injured through the fault of the said Contractor or his agents.

The Contractor shall report to the Owner all accidents occurring on the Work within 48 hours after their occurrence. The report shall contain complete information on the accident including names, addresses of persons involved and names and addresses of witnesses.

7.11 RIGHT-OF-WAY:

All right-of-way and easements for the Work will be provided without cost to the Contractor unless otherwise specified with ingress and egress at public roads and streets. If the Contractor desires other points of entry, he shall secure the written permission of the property owners and pay any cost relative thereto.

7.12 INTERFERENCE OF CONTRACTORS:

The right is reserved by the Owner to award any work not included in the Contract to another for performance during the progress of this Contract, or to perform such work with their own forces, and the Contractor for this Contract shall so cooperate and conduct his operation as to minimize the interference therewith. Where two or more Contractors are employed on related or adjacent work, each shall conduct his operations in such a manner as not to cause any unnecessary delay or hindrance to the other. Each Contractor shall be responsible to the other for any damage, injury, loss or expense which may be suffered on account of interference of operations, neglect or failure to finish the Work at the specified time, or for any other cause.

If, through acts of neglect on the part of the Contractor, any other Contractor, subcontractor or vendor shall suffer loss or damage or assert any claim in the Work, the Contractor agrees to settle with such other Contractor, subcontractor or vendor by agreement or arbitration if such other Contractor, subcontractor or vendor will so settle. If such other Contractor, subcontractor or vendor shall assert any claim against the Owner on account of any damage alleged to have been sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any such claim.

7.13 CONTRACTOR'S RESPONSIBILITY FOR WORK:

Until the final acceptance of the Work by the Owner as evidenced in writing, it shall be in the custody and under the charge and care of the Contractor and he shall take every necessary precaution against injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the Work. The Contractor shall rebuild, repair, restore and make good at his own expense all injuries or damages to any portion of the Work occasioned by any cause before its completion and acceptance and shall bear the expenses thereof.

7.14 CONTRACTOR'S RESPONSIBILITY FOR COMPLETION:

The Contractor shall accept ultimate responsibility for completion and final acceptance of the overall Project including work done by subcontractors and material and equipment provided by vendors and suppliers. The Contractor shall be responsible for coordination of Project execution in order to prevent duplication of work, omissions, and other intercontract conflicts. References to duties and responsibilities of subcontractors, vendors, suppliers, etc., within the Specifications are intended to be addressed through the general Contractor's overall responsibility.

7.15 PERSONAL LIABILITY OF PUBLIC OFFICIALS:

In carrying out any of the provisions of the Contract or in exercising any power or authority granted thereby, there shall be no liability upon the Engineer his representatives, either personally or as officials of the Owner, it being understood that in such matters they act as agents and representatives of the Owner.

7.16 NO WAIVER OF LEGAL RIGHTS:

The Owner or the Engineer shall not be precluded or stopped by any measurement, estimate or certificate made or given by either of them before or after the completion and acceptance of the Work and payment therefore, pursuant to any measurement, estimate or certificate, from showing the true and correct amount and character of the Work performed and materials furnished by the Contractor; or from showing at any time that any such measurement, estimate or certificate is untrue or incorrectly made in any particular; or from showing at any time that the Work or materials or any part thereof, do not conform in fact to the Contract. The Engineer shall have the right to reject the whole or any part of the aforesaid work or materials should the said measurements, estimate or payment be found, or be known, to be inconsistent with the terms of the Contract, or otherwise improperly given; and the Owner shall not be precluded from demanding and recovering from the Contractor and his Surety such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract. Neither the acceptance by the Engineer, or any representative, or employee; nor any certificate by the Engineer for payment of money; nor any payment for nor acceptance of the whole or any part of the work by the Owner, or Engineer; nor any extension of time; nor any possession taken by the Owner or its employees, shall operate as a waiver of any portion of the Contract or of any power herein reserved by the Owner or of any right to damages herein provided, nor such any breach of the Contract be held to be a waiver of any subsequent breach.

7.17 USE OF CHEMICALS:

All chemicals used during Project construction or furnished for Project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must be clearly identified and show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with manufacturer's instructions or government regulations as applicable..

7.18 DUST CONTROL:

The Contractor shall at all times provide for the control of dust within residential areas and such other areas where dust is a nuisance to the public by sprinkling with water or by other approved dust control measures. Water shall be provided by the Contractor. No direct compensation will be made for water or other dust control measures, payment for which shall be included in the price bid for other items of work except where a specific pay item is included in the Proposal.

7.19 SAFETY AND HEALTH REQUIREMENTS FOR CONSTRUCTION:

The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (P.L. 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (P.L. 91-54) and any amendments or additions thereto, where excavation and trenching are required the contractor shall comply with the requirements of OSHA Excavation and Trenching Safety Regulations (29 CFR Part 1926 - Excavation, Final Rule), and any amendments or additions thereto.

The Contractor shall be familiar and comply with the Board's Safety Rules Handbook in so far as it augments the specific regulation referred to in this Section.

The Contractor alone shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide necessary protection to prevent damage, injury or loss to:

- A. All employees on the Work and other persons and organizations who may be affected thereby.
- B. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
- C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal relocation or replacement in the course of construction.

The Contractor shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to above in Paragraphs 2 and 3 caused, directly or indirectly, in whole or in part, by Contractor any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor that the Work is acceptable.

The Contractor shall designate a responsible representative 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. The Contractor shall procure the referenced safety and health regulations, shall keep them on file at the job site, and shall require all supervisory personnel to become familiar with them.

7.20 BRACING:

In the event that the Contractor or his surety deems it necessary, desirable, or for other reasons to open sheet or close sheet the trenches, the sheeting shall be accomplished in such a manner that the pipe will be protected at all times. Such sheeting shall remain in place until the backfill is carried to a point at least 2 feet above the top of the pipe. The Contractor shall exercise every precaution in removing the sheeting in order to avoid damaging the pipe. Should there be evidence that the removal of sheeting would damage the pipe, the sheeting shall be left in place. The top of sheeting left in place shall be at least 12 inches below the finished ground. There will be no payment for this item.

7.21 WETLANDS:

The Contractor shall have a thorough knowledge of all wetland regulations and shall be able to determine if wetland areas are encountered during construction. If construction is determined to be in a wetland area or adjacent to a wetland area, the Contractor shall comply with all wetland regulations..

END OF SECTION

SECTION 8 PROSECUTION AND PROGRESS

8.01 SUBLETTING OR ASSIGNING OF CONTRACT; SUBCONTRACTORS:

a. Subletting or Assignment

The Contractor shall not sublet, assign, transfer, convey, sell or otherwise dispose of any portion of the Contract, his right, title, or interest thereon or his power to execute such Contract, to any person, firm, or corporation without written consent of the Owner, and such written consent shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the Contract. In case the Contractor assigns all or any part of any monies due or to become due under the Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to prior liens of all persons, firms, and corporations for services rendered or materials supplied for the performance or the Work called for in the Contract.

b. Subcontractors

The Contractor may utilize the service of Specialty Subcontractors on those parts of the work which, under normal contracting practices, are performed by the Specialty Subcontractors.

The Contractor shall not award any Work to any subcontractor without prior written approval of the Owner. As part of the submittals with the Contractor's bid for award of the Contract, the Contractor must include a Subcontracting Plan form with a brief description of the proposed award to each subcontractor, including such information as the Owner may require. Award of the Contract by the Board is acceptance of the submitted Subcontracting Plan unless Contractor is notified otherwise by the Board's authorized designated representative.:

The Owner reserves the right to decline to approve a subcontractor proposed on a bidder's Subcontracting Plan if the Owner, in its sole discretion, has concerns as to the quality of past work performed by the subcontractor on any job; the subcontractor's willingness or ability to adhere to ordinances, other laws, and/or court orders affecting the environment or other matters relative to the Work; or any other matter which may adversely affect the Owner's customers, the general public, or the Owner's systems, facilities, or property.

If the Owner, acting through its authorized designated representative, declines to approve a subcontractor proposed in a Subcontracting Plan submitted by an otherwise responsible and responsive bidder, the bidder will be given an opportunity as set forth herein to propose a different subcontractor or to withdraw the bid without penalty. The Owner's representative will provide the bidder with written notice [via e-mail, certified mail, or hand delivery] that the proposed subcontractor is not approved, and the bidder will then have five (5) business days from receipt of the notice in which to deliver to the Owner's representative an amended Subcontracting Plan proposing a different subcontractor. The contractor shall not change the amount of his bid when submitting a revised Subcontracting Plan. If the bidder delivers an amended Subcontracting Plan, the Owner's representative will have authority to accept the amended Subcontracting Plan and recommend award of the Contract, or to decline to accept the substitute subcontractor and recommend award to the next lowest responsible and responsive bidder. Or, the bidder may withdraw its bid without penalty prior to the end of this 5-day period. This opportunity to propose a new subcontractor within the 5-day period as set forth herein is ONLY for situations in which the Owner has rejected a proposed subcontractor for reasons stated in the preceding paragraph. In no other circumstances will a bidder be

Permitted to change a proposed Contractor after bid opening but before contract award. **This provision shall not be interpreted to allow a bidder to add a DBE subcontractor to its Subcontracting Plan after bids have been opened but before contract award.**

The Contractor acknowledges the Owner's responsibilities for providing water and sewer services to its customers, complying with environmental and other laws, and protecting its systems, facilities and properties. The Contractor will ensure that its contracts with all subcontractors incorporate by reference the Standard Specifications, General Conditions, and other Contract Documents of the contract between the Owner and the Contractor, including but not limited to this Section 8.01.

Nothing herein is intended to limit the responsibilities of the Contractor for directing the work and performance of its subcontractors or for the quality of work, compliance with laws and court decrees, safety, or any other responsibilities of the Contractor as reflected in the Contract and or as required by construction industry standards.

The Contractor shall be as fully responsible to the Owner for the acts and omissions of the subcontractors, and of personnel either directly or indirectly employed by them, as the Contractor is for the acts and omissions of persons directly employed by Contractor.

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 the General Conditions and other Contract Documents insofar as applicable to the Work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise of the Contractor under any provision of the Contract Documents.

Nothing contained in this Contract shall create any contractual relation between any subcontractor and the Owner, nor shall it create any obligation on the part of the Owner to pay or to see to the payment of any moneys due any subcontractor, except as may be otherwise required by law.

8.02 NOTICE TO PROCEED:

The Owner will, after executing the Contract, issue to the Contractor in writing or by wire a Notice to Proceed. The beginning of the time allotted for the Contract completion will be 10 days after the date of the Notice to Proceed, or the day on which Work is actually started, whichever occurs first.

8.03 NOTICE AND SERVICE THEROF:

Any notice to any Contractor from the Owner relative to any part of this Contract shall be in writing to the said Contractor at his last given address, or delivered in person to said Contractor or his authorized representative on the Work.

8.04 PROSECUTION OF WORK:

The Contractor shall begin the Work to be performed under the Contract within 10 days after issuance of the Notice to Proceed, and he shall give the Engineer definite notice of his intention to start work at least 72 hours in advance of beginning work. During the progress of the Work, the Contractor shall notify the Engineer at least 24 hours before he expects to be ready to undertake any particular features of the Work in order that proper inspection may be provided.

The Contractor must continuously and diligently prosecute the Work in such order and manner to complete the Work in the specified time. The Contractor shall employ an ample force of men and provide construction plant properly adapted to the Work and of sufficient capacity and efficiency to accomplish the Work in a safe and workmanlike manner at the rate of progress deemed necessary to insure its

Completion within the time set forth in the Contract. Each operation shall be begun as soon after the Contract is awarded as conditions will permit. Each class of work will be expected to progress from the date it is begun until completed. All plant and equipment shall be maintained in good working order and provision shall be made for immediate emergency repairs.

Should the Contractor fail to maintain a satisfactory rate of progress, the Owner will require that additional men and/or plant be placed on the Work, or a reorganization of plant layout be effected in order that the Work be brought up to the required progress schedule and maintained there. Should the Contractor fail to furnish suitable or sufficient tools, machinery, equipment or force for the proper prosecution of the Work, the Owner may withhold all estimates which may become due until their orders are complied with or the Contract may be annulled as hereinafter provided.

Should the prosecution of the Work be discontinued by the Contractor, with the consent of the Owner, the Contractor shall notify the Engineer in writing at least 24 hours before resuming operations.

8.05 CONSTRUCTION SCHEDULE AND PERIODIC ESTIMATES:

Immediately after execution and delivery of the Contract, and before the first partial payment is made, the Contractor shall deliver to the Owner an estimated construction progress schedule in the form satisfactory to the Owner, showing the proposed dates of commencement and completion of each of the various subdivisions of work required under the Contract Documents and the anticipated amount of each monthly payment that will become due the Contractor in accordance with the progress schedule. The Contractor shall also furnish the Owner: (a) a detailed estimate giving a complete breakdown of lump sum prices; (b) periodic itemized estimates of work done for the purpose of making partial payments thereon; and (c) a

Schedule of Shop Drawings submissions. The cost incurred in making up any of these schedules will be used only for determining the basis of partial payments and will not be considered as fixing a basis for additions to or deductions from the Contract Price.

8.06 LIMITATIONS OF OPERATIONS:

The Contractor shall at all times conduct the Work in such manner and in such sequence as will insure the least practicable interference with traffic. He shall not open up work to the prejudice of work already started. The Contractor shall furnish the section on which work is in progress before work is started on any additional section.

Whenever work being done by other Contractors is contiguous or related to the Work included in the Contract, the respective rights of the various interests involved shall be established by the Engineer in order to secure the completion of the various portions of the Work in general harmony.

8.07 CHARACTER OF WORKMEN AND EQUIPMENT:

All subcontractors, superintendents, foremen, and workmen employed by the Contractor shall be competent and reliable. All workmen must have sufficient skill and experience to properly perform the Work assigned them. All workmen engaged on special work or skilled work, or in any trade shall have had sufficient experience and ability in such work to properly and satisfactorily perform it and operate the equipment involved, and shall make due and proper effort to execute the Work in the manner prescribed in the Contract. The Owner may demand the dismissal of any person employed by the Contractor in, about, or upon the Work who misconducts himself or is incompetent or negligent in the due and proper performance of his duty, or who neglects or refuses to comply with the Contract; and such person shall not again be employed thereon without the written consent of the Owner. Should the Contractor continue to employ or re-employ any such person, the

Owner may withhold all estimates, which are or may become due or he may suspend the Work until the Contractor complies with such orders.

The methods and appliances used, the labor employed, and the machinery and equipment used shall be of sufficient size and in such mechanical condition as to meet the requirements and produce a satisfactory quality and quantity of work, shall be adequate to complete the Contract within the time specified in the Contract. No change in the machinery and equipment employed on the Work, which shall have the effect of decreasing its capacity, shall be made. The measure of the capacity of machinery and equipment shall be its actual performance on the Work.

In case the actual progress shall fall behind the estimated progress at any time, or should it become apparent that the Contractor will be unable to complete the Contract at the time and in the manner specified in the Contract, the Owner may require that additional equipment be placed on the Work.

Should the Contractor fail to furnish suitable or sufficient tools, machinery, equipment or force for the proper prosecution of the Work, the Owner may withhold all estimates which are or may become due until their orders are complied with or the Contract may be annulled as hereinafter provided.

Equipment used on any portion of the Work shall also be such that no injury to the roadway, adjacent property, utilities, structures or other highways will result from its use.

8.08 TEMPORARY SUSPENSION OF WORK:

The Owner shall have the authority to suspend the Work wholly or in part for such period as may be deemed necessary, due to unsuitable weather, or other essential conditions which are unfavorable for the suitable prosecution of the Work, or for failure on the part of the Contractor to carry out instructions, or to perform any provision of the Contract or on

account of any other conditions, which make it impracticable to secure satisfactory work. No additional compensation shall be paid the Contractor because of such suspension. The Contractor shall immediately respect the written order of the Owner or his authorized representative to suspend the Work, wholly or in part. Upon suspension, the Work shall be put in proper and satisfactory condition, carefully covered and properly protected. The Contractor shall not suspend the Work without such authority and the Work shall be resumed when conditions are favorable and methods are corrected when instructed in writing, and the Contractor shall notify the Engineer when he proposes to resume work, sufficiently in advance of such time, so as to afford the Engineer opportunity to re-establish field representation.

Should the progress of the Work be stopped by a temporary injunction, court or restraining order, process or judgment of any kind directed to either of the parties hereto, then such period of delay shall not be charged against the Contract Time nor shall the Owner be liable to the Contractor because of such delay or termination of Work.

If for any reason it should become necessary to stop work for an indefinite period, the Contractor shall store all materials in such a manner that they will not obstruct or impede the traveling public or become damaged in any way, and he shall provide suitable drainage and take every precaution to prevent damage to or deterioration of the Work performed.

8.09 DETERMINATION AND EXTENSION OF CONTRACT TIME FOR COMPLETION OF WORK:

A. When the time for completion of the Work in the contract is based upon working days, the number of working days will be specified in the Proposal Form.

A working day is defined as any day when in the opinion of the Engineer, soil and weather conditions are such as would permit effective work on any of the current major or controlling operations of Project with at least 80% of the

labor and equipment normally engaged on such major or controlling operations for at least 5 hours or more. If conditions are such as to stop work in less than this time, the day will not be counted as a working day. Sundays, national holidays, and holidays legal in the State shall be excluded from the count of working days. Contract working days shall start on the date stipulated in the Notice to Proceed and the Engineer shall be the sole judge of working days that elapse between the date stipulated in the Notice to Proceed and the actual commencing of operations by the Contractor. In computing the time required by the Contractor in the execution of the Work, allowance will be made for days not considered working days. However, no allowance shall be made for delays or suspension of the Work due to fault of the Contractor. Each week the Engineer shall give written notice to the Contractor, or to his representative in charge of the Work, of the number of working days the Engineer has determined there were in the weekly period covered by such notices. Any objection by the Contractor to such weekly decision shall be deemed waived, shall not thereafter be made the basis for any claim, unless the Contractor shall within 3 days of receipt of such notice file with the Engineer written protest setting forth his objections and specifying the reason therefore.

In case the final estimate exceeds the Contract Bid Price an extension in the work days will be granted the Contractor. This extension shall be in direct proportion to the amount of total overrun in dollars, that is, the percentage of overrun shall first be computed and the Working Days shall be increased by the same percentage.

B. When time set for completion of the Work is based upon calendar days, working days are not applicable and no extension of time beyond the calendar date will be made, except that where the final estimate exceeds the Contract Bid Price, and extension in

calendar days will be granted the Contractor. This extension shall be in direct proportion to amount of total overrun in dollars as above provided.

Time shall not be charged for maintenance after the Final Construction Inspection in case of either A or B.

8.10 FAILURE OR DELAY IN COMPLETING WORK ON TIME:

Time is an essential element in the Contract, as delay in the prosecution of the Work will inconvenience the public, obstruct traffic, and interfere with business. It is important that the Work be pressed vigorously to completion. Should the Contractor, or, in case of default, the Surety fail to complete the Work within the time stipulated in the Contract, or within such extra time as may be allowed as herein above provided, a deduction of the amount stipulated in the Contract for Liquidated Damages will be made for each and every calendar day that such Contract remains uncompleted after the calendar date specified for completion or after the expiration of the number of working days allowed for completion. The said amount stipulated in the Contract is hereby mutually agreed upon as liquidated damages.

Permitting the Contractor to continue and finish the Work or any part of it after the calendar date specified for completion or after the expiration of the number of Working Days allowed for completion, after any extension of time, shall not operate as a waiver on the part of the Owner of the rights of the Owner under this Contract.

In any suit for collection of, or involving the assessment of, liquidated damages, the reasonableness of the amount per day stipulated in the Contract shall be presumed. The liquidated damages referred to herein are intended to be and are cumulative, and shall be in addition to every other remedy now or hereafter enforceable at law, in equity, by statute, or under the Contract.

8.11 DEFAULT OF CONTRACT:

If the Contractor fails to begin the Work under Contract within the time specified, or fails to perform the Work with sufficient workmen, equipment, or materials, to insure its prompt completion, or performs the Work unsuitably, or neglects or refuses to remove materials or perform anew such work as shall be rejected as defective and unsuitable, or discontinues the prosecution of the Work, or from any other cause whatsoever does not carry the Work in an acceptable manner, or becomes insolvent or is adjudicated as bankrupt, or commits any act of bankruptcy or insolvency, or allows any final judgment to stand against him unsatisfied for a period of 10 days, the Owner or his representative may give notice in writing by registered mail to the Contractor and the Surety of such delay, neglect, or default. If within 10 days after such notice the Contractor does not proceed to remedy to the satisfaction of the Owner the fault specified in said notice, or the Surety does not proceed to take over the Work for completion, the Owner shall have full power and authority, without impairing the obligation of the Contract or the Contract Bonds, to take over the completion of the Work; to appropriate or use any or all material and equipment on the ground that may be suitable and acceptable; to enter into agreements with others for the completion of the Contract according to the terms and provisions thereof; or to use such other methods as in its opinion may be required for the completion of the Contract. The Contractor and his Surety shall be liable for all costs and expenses incurred by the Owner in completing the Work, and also for the liquidated damages in conformity with the terms of the Contract. In case the sum of such liquidated damages and the expense so incurred by the Owner is less than the sum which would have been payable under the Contract if it had been completed by the Contractor or his Surety, the Contractor or his Surety shall be entitled to receive the difference; and in case the sum of such expense and such liquidated damages exceeds the sum which would have been

payable under the Contract, the Contractor and his Surety shall be liable and shall pay to the Owner the amount of such excess. Notice to the Contractor shall be deemed to be served when delivered to the person in charge of any office used by the Contractor, his representative at or near the Work or by registered mail addressed to the Contractor at his last known place of business.

8.12 TERMINATION FOR FAILURE OF PERFORMANCE:

In the event of failure by the Contractor to perform any and all of the Contractor's obligations in a prompt and efficient manner satisfactory to the Owner, the Owner will have the right to summarily terminate this agreement, including all work covered hereby, by giving the Contractor written notice of such termination, after which the Owner may employ contracting services of his choice to complete the Work under this Contract and the Contractor and its Sureties will reimburse the Owner any additional costs which may result from such termination and employment of other contracting services. Failure by the Owner to exercise this right to so terminate this Contract for any such default by the Contractor shall not constitute a waiver by the Owner of its right to so terminate this Contract for any subsequent default.

8.13 PAYMENTS TO CONTRACTOR:

The Contractor shall submit a payment estimate on or before the 1st day of each calendar month for work performed the preceding calendar month. Within ten (10) days of receipt of the estimate, the Engineer will review, approve, and forward the estimate to the Owner, or return the estimate to the Contractor for needed corrections. Upon receipt of an estimate which has been reviewed and approved by the Engineer, the Board will consider the estimate at its next scheduled meeting, and within ten (10) calendar days after Board approval, will make

a partial payment to the Contractor on the basis of an approved and certified estimate. To ensure the proper performance of this Contract, the Owner will retain five (5%) percent of the amount of each estimate until fifty percent (50%) of the Contract amount is reached and no further retainage will be withheld (unless a different amount is stipulated in the Special Provisions) until final completion and acceptance of all Work covered by the Contract. All material and work covered by partial payments made shall thereupon become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Owner to require the fulfillment of all of the terms of the Contract.

The Contractor agrees that he will indemnify and save the Owner harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, materialmen, and furnishes of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this Contract. The Contractor shall furnish satisfactory evidence that all obligations of the nature herein above designated have been paid, discharged, or waived. If the Contractor fails so to do, then the Owner may, after having served written notice on the said Contractor, either pay unpaid bills of which the Owner has written notice, direct, or withhold 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 this Contract, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor or his Surety. In paying any unpaid bills of the Contractor, the

Owner shall be deemed the agent of the Contractor, and any payment so made by the Owner shall be considered as a payment made under the Contract by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any such payment made in good faith.

All material and work covered by partial payments made shall thereupon become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and Work upon which payments have been made or the restoration of any damaged Work, or as a waiver of the right of Owner to require the fulfillment of all the terms of the Contract.

8.14 PAYMENT FOR MATERIAL STORED:

Material delivered to the Project site, but not incorporated in the completed work will be paid for (less retainage) in the month following delivery when substantiated by invoices from the manufacturer. This includes materials delivered to storage prior to issuance of Notice to Proceed. Invoices for materials delivered during the month shall be included with the estimate on which the materials are shown. On monthly estimates subsequent to the first estimate submitted that includes invoices for stored materials for which payment to the Contractor has been made, there shall be a signed statement that the invoices have been paid by the Contractor. The statement shall read as follows:

“This is to certify that payment has been made for invoiced materials included in previous monthly estimates No. ____ through ____.

Signed _____“

In the event that such statement is not furnished or the manufacturer's or material suppliers notify the Owner in writing that they have not been paid for materials included on previous estimates, the Owner will make payment to the manufacturers or material suppliers in accordance with the provisions of these Specifications and the amount of such

payment for materials delivered to the Project then due the Contractor. It is the intent that are to be paid for as promptly as possible and that the Contractor is to make remittance for such materials to the manufacturers or materials suppliers promptly upon receipt of funds from the Owner. The Owner reserves the right to take such steps as deemed appropriate pursuant to the provisions of these Specifications to assure that materials are paid for promptly.

8.15 PAYMENT BY CONTRACTOR:

The Contractor shall pay: (a) for all transportation and utility services not later than the 20th day of the calendar month following that in which services are rendered; (b) for all materials, tools, and other expendable equipment to the extent of 90 percent of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools, and equipment are delivered at the site of the Project; (c) for major items of equipment to be installed in the Work, not later than the 5th day following each payment to the Contractor, the respective amounts allowed the Contractor on account of the equipment furnished; and (d) to each of his subcontractors, not later than the 5th day following each payment to the Contractor, the respective amounts allowed the Contractor on account of the work performed by his subcontractors to the extent of each subcontractor's interest therein.

8.16 FURNISHING OF UTILITIES:

The Contractor, at his own expense, shall provide water, sewer, gas, electricity and telephone lines for construction. The Contractor shall provide all necessary temporary piping and wiring as required to perform his work. After completion of the permanent utility connections, the Contractor shall be required as part of this Work to secure all utility services from the respective utility companies and shall pay all monthly bills until final acceptance. The Contractor shall then have respective utility companies transfer their

billings to the Owner's name. If the Owner obtains beneficial use prior to final acceptance, the billing may be transferred at that time. Utility services required for testing of equipment or other use of the Contractor will be paid for by the Contractor regardless of whether equipment has been placed in service. Unless specified elsewhere within these Specifications and/or noted on the Plans, costs associated with the providing of permanent utilities including water and electricity requiring work beyond the point of connection of the utility company will be considered outside the scope of work defined for this Contract. Costs, charges, fees, etc., assessed by utility companies for work or services beyond the point of connection shall not be the responsibility of the Contractor unless specifically included by other portions of these Specifications and Plans. Utility services required for testing of equipment will be paid for by the Contractor regardless of whether equipment has been placed in service.

8.17 MONTHLY ESTIMATES:

For the purpose of making partial monthly estimates only work that has been completed will be measured for payment. On each monthly estimate, the Contractor shall place the following certification:

"I hereby certify that the Work covered by this estimate was performed in accordance with the Contract, that prevailing scales of wages were paid and that this estimate is true and that payment therefore has not been received.

Number of Days in Contract ___ Days
Number of Days Elapsed ___ Days
Percent of Time Elapsed ___ %
Percent of Contract Completed ___ %

By _____"

8.18 EXTRA AND FORCE ACCOUNT WORK:

Extra Work as hereinbefore defined, when authorized and accepted will be paid for in accordance with the following:

A. The Contractor shall submit to the Owner or its authorized representative a written agreement for the Work to be done and basis of payment (lump sum, force account or unit price), and submit the same to the Owner for authorization to perform such Extra Work.

1. When Extra Work is authorized to be paid for on a lump sum basis, the Contractor shall compute the percentage done each month and submit with the monthly estimate, a detail sheet showing this percentage and the amount due.
2. When Extra Work is authorized to be paid for on a unit price basis, the Contractor shall include on each monthly estimate the amount of Work done that month.
3. When Extra Work is authorized to be paid for on a Force Account basis, the Contractor shall furnish itemized statements to the Engineer of the cost of all Force Account work, which shall include a certified copy of the weekly payroll and original receipted bills for all materials used and freight charges paid on same, provided that where materials used are not specifically purchased for use on Extra Work but are taken from the Contractor's stock, the Contractor shall submit an affidavit of the quantity, price, and freight on such materials in lieu of original bills and invoices, which affidavit must be approved by Engineer.

With each monthly estimate on Work paid for on a Force Account basis, the Contractor shall submit in duplicate a detailed statement showing the following:

- a. Name, class, date, number of hours worked each day, total hours, rate and extension for each laborer and foreman engaged.
- b. Designation, number of hours worked each day, total hours, rental rate and extension for each truck, and unit of machinery

engaged.

- c. Quantity of materials, price and extension.
- d. Freight on materials.
- e. When the Extra Work is complete, the cost of Property Damages, Liability, Worker's Compensation and Unemployment Insurance.

B. All Extra Work done by Force Account will be paid for in the following manner:

1. For all labor, and foreman in direct charge of the specific work, the Contractor shall receive the current local rate of wage, to be agreed upon in writing before beginning work, for each and every hour that said labor, teams and foreman are actually engaged in such work; to which shall be added an amount equal to 10 percent thereof. No allowance shall be made for general superintendent and use of small tools and ordinary equipment.
2. For the cost of Property Damage, Liability, Worker's Compensation and Unemployment Insurance required for Force Account Work, the Contractor shall receive the actual cost to which no percentage shall be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such insurance.
3. For materials, the Contractor shall receive the actual cost of such material delivered to the Work, including the freight charges, as shown by original receipted bills; to which shall be added an amount equal to 10 percent of the sum thereof.
4. For any machinery or special equipment other than small tools, including pertinent fuel and lubricants, which it may be deemed necessary or desirable to use, the Contractor shall be allowed a reasonable rental price to be agreed upon in writing before such work is

begun, for the time that such equipment is in use on the Work and to which sum no percentage shall be added.

No Extra Work will be paid for unless unit prices or wages have been agreed upon in writing before such work is started.

The compensation as above provided in 1, 2, 3, and 4 shall be accepted by the Contractor as payment in full for Extra Work done on a Force Account basis including superintendence, general expense, overhead, use of tools and equipment for which no rental is allowed, Contract Bonds and profit.

8.19 ACCEPTANCE OF FINAL PAYMENT CONSTITUTES RELEASE:

The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor for all things done or furnished in connection with this Work and for every act and neglect of the Owner and other relating to or arising out of this Work. No payment, however, final or otherwise, shall operate to release the Contractor or his Sureties from any obligations under this Contract or the Contract Bonds.

8.20 DISTURBED AREAS:

All areas that are disturbed due to direct or indirect construction operations shall be restored by the Contractor to a condition equal or better than the condition of the area prior to the operations.

END OF SECTION

SECTION 9 TESTING MATERIALS

9.01 INSPECTION AND TESTING OF MATERIALS:

The following will be the minimum test requirements. All tests are to be performed by a recognized testing laboratory subject to the approval of the Owner.

Materials of construction, particularly those upon which strength and durability of the structure may depend, shall be inspected and tested to establish conformity with the Contract and suitability for uses intended. The following are differentiations of minimum service desired to protect the interest of the Owner. Other materials, not listed, shall also receive attention consistent with the importance of the use to which they are to be put.

The judgment of the Engineer shall prevail where it appears advisable to deviate from the limitations set forth hereinafter because of no availability of the material required other than concrete materials and concrete.

When so specified in the Special Provisions, the Owner will pay for testing; but when not specified, the testing shall be performed, at no cost to the Owner, by an approved independent testing laboratory.

9.02 PORTLAND CEMENT:

A. Where the total Project requirement is less than 200 barrels (one car):

Cement shall have been shipped from the mill not more than three months previous to receipt on the Work. Manufacturer's certificate required.

B. Where the total Project is between 200 barrels and 800 barrels:

Manufacturer's test and certificate of inspection conformance for each shipment shall be furnished except where, for special reasons, independent laboratory testing as for condition C is required.

C. Where the total Project requirement exceeds 800 barrels; also, where cement other than a standard ASTM or a Federal Specification Portland Cement is used:

Tests shall be made on the entire cement requirement by an approved independent laboratory on car samples, or bin (sealed) samples, as may be required. (ASTM Specification C150)

Cement Testing shall be conducted under ASTM Specification C150 where not in conflict with Project Specifications.

9.03 AGGREGATES FOR USE IN CEMENT CONCRETE:

A. Concrete aggregates shall conform to "Standard Specifications for Concrete Aggregates", ASTM Serial Designation C33.

B. In the absence of test records indicating suitability, or of a satisfactory service record for a period of 5 or more years, the test requirements for fine and coarse aggregates shall be made.

C. The maximum size of the aggregate shall not be larger than one-fifth of the narrowest dimension between forms of the member for which the concrete is to be used, nor larger than three-fourths of the minimum clear spacing between reinforcing bars.

9.04 FINE AGGREGATE:

Conformity with ASTM C33. Tests shall be made periodically as the Work progresses to assure uniformity.

9.05 COARSE AGGREGATE:

Conformity with ASTM C33.

9.06 SLUMP TESTS OF CONCRETE:

Where 25 or more cubic yards of concrete are placed, also as necessary to maintain desired consistency of the concrete, a slump test shall be made per ASTM C143. Not less than one such test shall be made for each 50 cubic yards of concrete placed at one operation. Such test shall also be made on each sample of concrete used in making test specimens.

9.07 ADVANCE CONCRETE TESTS:

A. Where more than 50 and less than 500 cubic yards of concrete are required:

Before the start of concreting, make a single batch of a set of four standard 6-inch cylinders per ASTM C31 and cure. Test two at 7 days and two at 28 days per ASTM C39. Report as for "Concrete Control Test (Laboratory Curing)" below.

B. Where a total of more than 500 cubic yards of concrete is required:

Advance tests of concrete shall be made in an independent laboratory in accordance with ASTM C39. Six standard 6-inch compression cylinders, three to be tested at 7 days and three at 28 days, shall be made with the proportioning and materials, including cement, of the type, brand and mill source proposed to be used in the major part of the Project. The slump should not be less than the greatest slump expected to be used in the structure. The tests made on aggregates, as required above, may be made a part of these tests if suitably referenced on the reports which shall be issued at 7 and 28 days to interested parties. These tests shall be repeated if necessary because of changes in materials or unsatisfactory results. Strength requirements will be stated in the Contract.

9.08 CONCRETE DESIGN MIX AND TESTS:

A. The Contractor shall submit to the Owner for approval a design concrete mix by an approved commercial testing laboratory before placing any concrete.

B. All on-site concrete testing shall be at the Owner's expense.

9.09 CONCRETE CONTROL TESTS (LABORATORY CURING)

Where a total of more than 500 cubic yards of concrete is required:

During the progress of the Work, and for each different mix of concrete, a set of two standard 6-inch concrete cylinders shall be made and tested, where from 25 to 100 cubic yards of concrete are placed, during each and every day's operations. Also, an additional set of tests shall be made for each 100 cubic yards or major fractions thereof over and above the first 100 cubic yards. The cylinders of each set shall be molded from the same sample of concrete and tested at 7 days or at 28 days, as may be specifically desired. ASTM C31 shall govern. Testing shall be done per ASTM C39.

9.10 REINFORCING STEEL:

A. Where less than 50 tons are required:

Field inspection for section, rust, shape and dimensions. Manufacturer's certificate required.

B. Where 50 or more tons are required:

Inspection and tests by an approved laboratory for conformance with governing specification.

9.11 STRUCTURAL STEEL

A. Where less than 100 tons are required:

Field inspection for rust, dimensions, riveting, welding, painting, etc. Manufacturer's certificate required.

B. Where 100 or more tons are required:

Mill and shop inspection by an independent laboratory.

9.12 STEEL BAR JOISTS:

Where more than 100 joists are required:

There shall be furnished the manufacturer's test data proving the efficiency of the design of his joists for the purpose intended, and in addition there shall be furnished certificates that the joists as furnished are in accordance with Project requirements and with the Standard Specifications for Steel Joists as given in the handbook "Steel Joists Construction" published by the Steel Joists Institute.

9.13 BRICK:

A. Where less than 50,000 are required:

Visual inspection as set forth in ASTM or other designated specification.

B. Where 50,000 or more are required:

Visual inspection and tests, as set forth in ASTM or other designated specification, by an independent laboratory.

9.14 BUILDING BLOCK AND STONE:

A. Where less than 1,000 pieces are required:

Visual inspection as set forth in ASTM or other designated specification.

B. Where 1,000 or more pieces are required:

Visual inspection and tests, as set forth in ASTM or other designated specification, by an independent laboratory.

9.15 CONCRETE SEWER PIPE:

Inspection and testing, as set forth in ASTM or other designated specification, by an independent laboratory. Inspection shall be made at the factory and each joint of approved pipe and fitting shall be stamped by the laboratory. Except when so specified in the Special Provisions, the supplier may use his own quality control program and provide and affidavit as to conformance with Contract requirements.

9.16 CAST IRON, DUCTILE IRON PIPE AND SPECIAL CASTINGS:

Each piece of pipe shall bear the manufacturer's serial number and shall be certified by the manufacturer to have met the requirements of the governing Standard Specifications. Also, each piece shall be visually inspected in the field for Specification conformance.

9.17 OTHER MATERIALS AND EQUIPMENT:

Materials other than the foregoing, including equipment, shall or course, also be suitably specified, and shall be inspected and tested to assure conformance with the Specifications and with manufacturer's certificates.

END OF SECTION

PART 3
CONSTRUCTION SPECIFICATIONS

SECTION 10

SPECIAL PROVISIONS

10.01 ALABAMA ACT NO. 84-228:

Contractors shall comply with the requirement of Act No. 84-228 of the Legislature of the State of Alabama. Particular attention is directed to Section 2 of Act. No. 84-228 which requires submission of certain documents with the bid documentation and failure to submit such documents may be cause for rejection of the Contractor's bid.

As a convenience to bidders, the law is presented below; however, it shall be the Contractor's responsibility to satisfy himself as to the responsibilities under the law.

ALABAMA LAW
(Regular Session, 1984)

Act No. 84-228

S. 135-Senators Foshee, and Teague

AN ACT

Relating to contracts and contractors; to give preference to resident contractors who bid on public work projects except where federal funds are involved.

Be it Enacted by the Legislature of Alabama:

Section 1. In the letting of public contracts in which any state, county or municipal funds are utilized, except those contracts funded in whole or in part with funds received from a federal agency, preference shall be given to resident contractors and a nonresident bidder domiciled in a state having laws granting preference to local contractors shall be awarded Alabama public contracts only on the same basis as the nonresident bidder's state awards contracts to Alabama contractors bidding under similar circumstances; and resident contractors in Alabama as defined in Section 39-2-12, Code of Alabama 1975, be they corporate, individuals or partnerships, are to be granted preference over nonresidents in awarding of contracts in the same manner and to the same extent as provided by the laws of the state of domicile of the nonresident.

Section 2. Nonresident bidders must accompany any written bid documents with a written opinion of an attorney at law licensed to practice law in such nonresident bidder's state of domicile, as to the preferences, if any or none, granted by the law of that state to its own business entities whose principal places of business are in that state in the letting of any or all public contracts.

Section 3. A summary of this law shall be made a part of the advertised Specifications of all projects affected by this law.

Section 4. The provisions of this Act are severable. If any part of this Act is declared invalid or unconstitutional, such declaration shall not affect the part which remains.

Section 5. All laws or parts of laws which conflict with this Act are hereby repealed.

Section 6. This Act shall become effective immediately upon its passage and approval by the Governor, or upon its otherwise becoming law.

Approved April 30, 1984 Time: 4:30 P.M.

10.02 SMALL AND SMALL UNDERUTILIZED BUSINESSES:

The Board's Small and Underutilized Business office will assist Bidders upon request in meeting the requirements of the Contract.

10.03 STATE HIGHWAY OR RAILROAD PERMITS:

Where a pipe is to be laid along or under a State Highway or railroad, the Contractor shall furnish the Highway Department or railroad company with bonds and insurance as required to secure a permit. The cost of bonds and insurance will be borne by the Contractor.

10.04 PERMITS, CERTIFICATES, LAWS AND ORDINANCES:

The Contractor shall, at his own expense, procure all permits, certificates and licenses required of him by law for the execution of his work. He shall comply with all federal, state, and local laws, ordinances and rules and regulations relating to the performance of the Work.

The Contractor shall also comply with Ordinance 55-012 "An Ordinance Regulating All Excavation Work of Existing Streets and Improvements Within Public Rights-of-Ways," adopted by the Board of Water and Sewer Commissioners of the City of Mobile, Alabama, April 3, 1970.

10.05 WAGE RATES:

The construction of said Project shall in all respects conform to all applicable requirements of federal, state and local laws and ordinances.

10.06 SEQUENCE OF OPERATIONS:

The Contractor shall start at the point or points designated by the Owner and shall proceed with the sequence of construction as the Owner directs. The Contractor shall provide sufficient crews to perform

excavations and lay pipe and backfill, so no open excavations are left open at the end of day.

10.07 PROJECT DOCUMENTATION:

This subsection shall be replaced with the following:

- A. General: Prior to start of construction, the Project shall be documented by the use of photographs or video. Pictures (photo or video), in color, shall be taken at a minimum of 100 feet on centers and shall be taken along the centerline of the Project looking up station. At least one station marker shall be visible for identification purposes and station markers shall be set by the Contractor. During the course of the documentation, any features or items of interest or importance which may be encountered shall be photographed or videotaped. Photos and videos shall be delivered to the Engineer within one week after they are made.

10.08 REPORTS, RECORDS, AND DATE:

The Contractor and each of his subcontractors shall submit to the Owner such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records, and other data as the Owner may request concerning work performed or to be performed under this Contract.

10.09 SIGNS:

Before starting and during construction on any Project, the Contractor shall place the required signage.

10.10 CONSTRUCTION WITHIN STATE HIGHWAY RIGHT-OF-WAY:

The requirements of the State of Alabama Highway Department "Standards for Accommodating Utilities on Highway Rights-of-Way" are hereby made a part of these Specifications for all utility construction within rights-of-way for roads or highways under the jurisdiction of the State of Alabama Highway Department.

10.11 CUTTING OF TREES WITHIN PUBLIC RIGHTS-OF-WAY:

The Contractor shall obtain a permit from the Mobile Tree Commission prior to trimming or removing any trees located within public rights-of-way. When large tree limbs and roots are encountered, the Contractor shall take precautions to protect by tunneling, or pushing the pipe under the roots so as not to damage them. No additional payment shall be made for this Work, but it shall be included in the unit price bid for related items.

10.12 DEWATERING:

The Contractor shall remove any water which may be found or may accumulate in the trenches and shall perform all work necessary to keep them clear of water while the foundations are being laid, the masonry

being constructed, or pipe laying is in progress. Such removal shall be accomplished by means of a well point system or other approved means. Comprehensive plans for dewatering operations, if used, shall be submitted prior to installation. No extra payment will be made for dewatering.

10.13 WEATHER CONDITIONS:

In the event of temporary suspension of work or during inclement weather, or whenever the Owner shall direct, the Contractor will, and will cause his subcontractor to protect carefully his and their Work and materials against damage or injury from weather. If any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his subcontractors to protect his work, such materials shall be removed and replaced at the expense of the Contractor.

10.14 LOCKS AND KEYS:

All locks to be furnished under this Contract shall be keyed alike and 5 keys shall be delivered to the Engineer for distribution to the Owner. Padlocks shall be furnished by the Owner except where noted otherwise on the Plans and in these Specifications.

10.15 TIGHTNESS OF WATER CONTAINING WALLS:

(Subsection omitted)

10.16 EXTENSION OF CONTRACT TIME:

Unless specifically waived by the Owner, when an extension of contract time is granted by the Owner to the Contractor to complete the Work under this Contract, the Contractor shall pay any additional engineering Cost or other Cost accrued to the Owner as a result of the extension of time granted.

The requirements of Specification Paragraph 5.14, Paragraph 5.15 and Paragraph 8.10 will be strictly adhered to upon completion of the Work.

10.17 CLEAN-UP:

The job shall be kept clean at all times. Loose dirt shall not be allowed to clog ditches or cover sidewalks. Soft clay or other undesirable material removed from the trenches shall be removed from the streets, sidewalks or ditches. The Owner reserves the right to demand that the Contractor's forces be diverted to this clean-up at any time that condition of streets, driveways, sidewalks, or private property warrants such diversion. Such diversion of Contractor's forces will not entitle the Contractor to any extension of time or additional compensation.

10.18 BRANDS OF EQUIPMENT AND MATERIALS:

When referenced the name of a certain brand, make or manufacturer is to denote the quality standard of

the equipment or material, and is to convey the general style, type, character and quality. Whenever a material or article required is specified or shown on the Plans by using the proprietary product or of a particular manufacturer or vendor, any material or article which will meet the design criteria and is equal in function and durability as determined by the Engineer will be considered.

10.19 AFFIDAVIT OF COMPLIANCE:

Suppliers of pipe and fittings shall furnish in triplicate to the Owner, and affidavit stating that all pipe and fittings furnished under this Contract conform to the requirements as set forth in these Specifications. Unless specified otherwise, all materials shall be new, unused and without defect.

10.20 SUPERVISION OF INSTALLATION AND THE GUARANTEE:

The Contractor shall employ a factory trained engineer to supervise the installation and alignment of all items of mechanical and electrical equipment. He shall see that all items of equipment are installed, piped, and wired, meeting the requirements of the Plans and Specifications and in accordance with the manufacturer's recommendations. The Contractor shall place all equipment in satisfactory operation and demonstrate such. The Contractor shall guarantee the satisfactory operation of all apparatus and machinery against defects in workmanship, material, and installation for a period of one year from the date of final acceptance. The Owner will give notice of observed defects with reasonable promptness and the Contractor shall remedy any defects in the Work and pay for any damage to other work resulting therefrom. Neither the final certificate of payment nor any provision in the Contract Documents nor partial or entire use or occupancy of the premises by the Owner shall constitute an acceptance of work not done in accordance with the Contract Documents, or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

10.21 MANUFACTURER'S CERTIFICATION:

To assure that manufacturers and suppliers are aware of the use to which their equipment and products will be subjected, the Contractor shall require the manufacturer or manufacturer's representative to place the following certification on submittal data transmittals:

"This is to certify that we have examined the Plans and Specifications for this Project and have ascertained that this equipment or material is suitable for the purpose and use intended.

Authorized Signature

10.22 MAXIMUM TRENCH WIDTH:

(Subsection omitted)

10.23 BASIS OF PAYMENT AND METHOD OF MEASURE:

A. General: The unit price bid for the various items shall be compensation in full for furnishing all materials, labor, equipment, and incidentals for the item in place complete in every detail. There will be no direct payment for clearing, excavating, bracing, caulking, backfilling, clean-up, restoration of property, testing or other items of work necessary for the installation of the item, with the exception of the removal and replacement of pavement as paid for under a separate item.

B. Item Number Clarification: This subsection shall be amended to include the following amended and new pay items:

BI001. Mobilization and Demobilization: This bid item shall include all work for mobilization to and demobilization from the project site and shall include but not be limited to movement of personnel, equipment, supplies, and incidentals to and from the project site; establishment of storage facilities; other preconstruction expenses not paid for under other pay items; and final site cleanup. Measurement shall be on a lump sum basis for all labor, materials, and equipment necessary for mobilization and demobilization. Payment shall be in accordance with the Contractor's accepted schedule of values.

BI002. General Conditions: This bid item shall include all bonds, insurance, licenses, and permits; furnishing, installing, and maintaining temporary field offices and utilities; site supervision; establishment of safety and sanitary facilities; having all OSHA-required notices posted; project sign(s); shop drawing submittals; and startup expenses. Measurement shall be on a lump sum basis for all labor, materials, and equipment necessary for complying with the general conditions. Payment shall be in accordance with the Contractor's accepted schedule of values.

BI003. Erosion Control: This bid item shall include all work to install, maintain, and remove temporary erosion control measures during construction including but not limited to developing and implementing a Stormwater Pollution Prevention Plan (SWPPP), silt fence, temporary seeding and hydro seeding, straw bales, turbidity curtains, rock check dams, and stabilized construction entrance. This bid items shall also include the services of a Qualified Credentialed Professional (QCP) to develop the SWPPP and monitor sediment control on a regular basis. Measurement shall be on a lump sum basis for all labor, materials, and equipment necessary for erosion control. Payment shall be in accordance with the Contractor's accepted schedule of values.

BI004. Site Clearing and Demolition: This bid item shall include all work for site clearing and demolition including but not limited to protection of existing facilities to remain, clearing and grubbing, and demolition. Demolition shall include but not be limited to removal of the specified drainage features, access road, trees/brush, and topsoil. This bid item shall also include the identification and removal of unsuitable materials. Measurement shall be on a lump sum basis for all labor, materials, and equipment necessary for site clearing

and demolition. Payment shall be in accordance with the Contractor's accepted schedule of values.

- BI005. Earthwork:** This bid item shall include all work for earthwork including but not limited to excavation, backfill, imported fill/backfill materials (including but not limited to aggregate, proposed borrow sand, structural fill, and other soil fill materials), geotextiles, compaction, grading, field quality control, and other work necessary for earthwork complete in place and ready for service. This bid item shall also include the services of a professional land survey to establish elevation control and perform topographic survey of the site and to establish and verify a benchmark. This bid item shall also include classification of appropriate structure fill from off-site borrow areas or manufactured sources (to be identified by the Contractor) and related soil/aggregate compaction testing. Measurement shall be on a lump sum basis for all labor, materials, and equipment necessary for earthwork. Payment shall be in accordance with the Contractor's accepted schedule of values.
- BI006. Subsurface and Surface Drainage Improvements:** This bid item shall include all work for subsurface and surface drainage improvements including but not limited to toe drain piping improvements, toe drain cleanout extensions, surface drainage headwalls and piping, drain basins, terracotta replacement pipes; and all other work necessary for subsurface and surface drainage improvements. Measurement shall be on a lump sum basis for all labor, materials, and equipment necessary for drainage improvements. Payment shall be in accordance with the Contractor's accepted schedule of values.
- BI007. Flume Box Relocation and Concrete Pad Construction:** This bid item shall include all work for relocating the existing flume boxes and installing concrete pads for the flume boxes to be anchored to. Measurement shall be on a lump sum basis for all labor, materials, and equipment necessary for flume box relocation and construction of concrete pads. Payment shall be in accordance with the Contractor's accepted schedule of values.
- BI008. Site/Surface Restoration:** This bid item shall include all work for site/surface restoration including but not limited to fencing (including but not limited to chain link fence with barbed wire, chain link fence gates, tubular security gates, and warning signs); seeding, sodding, and hydroseeding; access road (including but not limited to compacted engineered clay fill, ALDOT limestone, crushed aggregate base, asphalt binder course, asphalt wearing surface, and granular shoulder); concrete curb and gutter; guardrails; and all other work necessary for site/surface restoration complete in place and ready for service. Measurement shall be on a lump sum basis for all labor, materials, and equipment necessary for site/surface restoration. Payment shall be in accordance with the Contractor's accepted schedule of values.
- BI009. Downstream Ditches:** This bid item shall include all work for grading and backfilling the two downstream ditches. Measurement shall be on a lump sum basis for all labor, materials, and equipment necessary. Payment shall be in accordance with the

Contractor's accepted schedule of values.

C. Evaluation of Bids and Award of Contract:

Award of Contract shall be in accordance with Section 3 – Award of and Execution of Contract, Paragraph 3.02 – Award of Contract. When comparing bids for determining the lowest responsible Bidder, the Total Base Bid Amounts will be used.

After determination of the Successful Bidder based on the comparison of the Total Base Bid Amounts and on the responsiveness, responsibility, and other factors set forth in this Invitation for Bids, the award may be made to said Successful Bidder on its Total Base Bid Amount and any combination of its Alternative Bid Items for which Owner determines funds will be available at the time of award.

10.24 SPECIAL HANDLING OF PURCHASE ORDERS¹

The Board of Water and Sewer Commissioners is exempt from City, County, State and Federal sales tax for any hardware, equipment, and materials purchased for the installation of Capital projects. Contractors shall take this into consideration when preparing bids for capital projects. To ensure there are no taxes charged, Contractors are directed to do the following:

Contractor shall contact the Alabama Revenue Department and apply for a tax exempt certificate for the specific project. The phone number for the Mobile office is 334-344-4737. The web site that explains the rules and regulations for tax exemption is www.ador.state.al.us, rule number 810-6-5.02.

Contractor shall mail copies of the tax exempt certificate to all suppliers of all hardware, equipment, and material.

Contractor shall state on each purchase order to the supplier that material, equipment, and hardware for installation owned and operated by the Board of Water and Sewer Commissioners of the City of Mobile are exempt from County and State sales tax as per the number on the certificate of exemption.

1. Revised & adapted 1/8/01

10.25 BYPASS PUMPING

(Subsection omitted)

END OF SECTION

PART 4
TECHNICAL SPECIFICATIONS

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 10 00 – SUMMARY**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Plans and general provisions of the contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Phased construction.
 - 4. Work by Owner.
 - 5. Work under separate contracts.
 - 6. Future Work.
 - 7. Purchase Contracts.
 - 8. Owner-Furnished Products.
 - 9. Contractor-Furnished, Owner-Installed Products.
 - 10. Access to site.
 - 11. Coordination with occupants.
 - 12. Work restrictions.
 - 13. Specification and drawing conventions.
 - 14. Miscellaneous provisions.

- B. Related Requirements:
 - 1. Section 01 50 00 – Temporary Facilities and Controls

1.3 PROJECT INFORMATION

- A. Project Identification: Big Creek Lake Dam Toe Berm and Drainage Improvements.
 - 1. Project Location: Mobile, Alabama.
- B. Owner: Mobile Area Water & Sewer System.
 - 1. Owner's Representative: Markus Moore.
- C. Engineer of Record: Kip Anderson, PE PG (Stantec)

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. The project will generally include construction of a toe berm and filter blanket at the downstream toe of Big Creek Lake Dam. The improvements include a toe berm within the limits of the two tailwater channels, a filter blanket along sections of the dam and ditches downstream of the dam, and improvements to the drainage system at the downstream toe of the dam.
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.
 - a. Big Creek Lake Dam Toe Berm.

1.5 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

1.6 WORK UNDER SEPARATE CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

1.7 PURCHASE CONTRACTS

- A. Contractor's responsibilities are same as if Contractor had negotiated purchase contracts, including responsibility to renegotiate purchase and to execute final purchasing agreements.

1.8 CONTRACTOR-FURNISHED, OWNER-INSTALLED PRODUCTS

- A. Contractor shall furnish products indicated. The Work includes unloading, handling, storing, and protecting Contractor-furnished products as directed and turning them over to Owner at Project closeout.

1.9 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Plans by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to work in areas as shown on the Plans. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to areas as shown on the Plans.
 - 2. Driveways, Walkways and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.10 COORDINATION WITH OCCUPANTS

- A. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.
1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
 2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
- B. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.
1. Engineer will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner acceptance of the completed Work.
 2. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of Work.

1.11 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:

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1. Notify Engineer and Owner not less than two days in advance of proposed utility interruptions.
 2. Obtain Engineer's written permission before proceeding with utility interruptions.
- C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
1. Notify Engineer not less than two days in advance of proposed disruptive operations.
 2. Obtain Engineer's written permission before proceeding with disruptive operations.
- D. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
1. Maintain list of approved screened personnel with Owner's representative.

1.12 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Plans are described in detail in the Specifications. One or more of the following are used on Plans to identify materials and products:

1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Plans.
3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

1.13 MISCELLANEOUS PROVISIONS

- A. See Special Provisions.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 10 00

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 14 00 – CONSTRUCTION STAKING AND LAYOUT**

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

The Work includes furnishing all materials, equipment, incidentals, and labor necessary for construction staking and layout for the Big Creek Lake Dam Toe Berm and Drainage Improvements project.

1.2 RELATED WORK

- A. Section 01 35 13 – Site Preparation

1.3 QUALITY ASSURANCE

Acceptance of the Work herein shall be based upon the basis of inspection at the project site by the Engineer. The Work shall be performed by or under the direction of a Professional Engineer and/or Professional Land Surveyor registered in the state of Alabama.

1.4 SUBMITTALS

Engineer acceptance is required for all submittals with an "ENG" designation; submittals not having an "ENG" designation are for information only. The following shall be submitted in accordance with the Specification.

- A. Substantial Completion Record Drawings, ENG
 - 1. The Contractor shall submit record drawings within fourteen (14) calendar days of when substantial completion of any work element is achieved. The intent of this record drawings progress submittal is to provide the Engineer with an updated set of record drawings of the Work components substantially completed.
- B. Final Record Drawings, ENG
 - 1. The Contractor shall submit final record drawings as specified in Paragraph 3.2, within fourteen (14) calendar days after all Work components have achieved substantial completion.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 CONSTRUCTION STAKING

The Contractor shall locate the control points established by the Engineer and shall establish any necessary benchmarks for the proper layout of the Work. The Contractor shall make all calculations involved and shall furnish and place all additional control points. The Contractor shall exercise care in the preservation of any pre-existing control points and shall have them reset when they are damaged, lost, displaced, or removed at no additional cost to the Owner. The method to reset any control points shall be accepted by the Engineer. The Contractor shall ensure that adequate benchmarks and project controls are established and maintained throughout construction.

3.2 CONSTRUCTION LAYOUT

The Contractor shall be responsible for the proper layout of the Big Creek Lake Dam Toe Berm and Drainage Improvements project. The Contractor shall be responsible for reporting any discrepancies to the Engineer for clarification. Minor adjustments to suit field conditions are anticipated, and it will be the responsibility of the Engineer to make decisions regarding adjustments. Any inspection or checking of the Contractor's layout by the Engineer and the acceptance of such shall not relieve the Contractor of its responsibility to secure the proper dimensions, grades, and elevation of the required Work.

The Contractor shall be responsible for updating and maintaining for Engineer review a record drawing set throughout the construction period.

Upon achieving substantial completion of any one Work component and upon achieving substantial completion of all Work components, the Contractor shall submit a set of record drawings to the Engineer for acceptance. This Work is considered incidental to the Contractor's Lump Sum price. These record drawings shall show all deviations from the original design and include any native files (AutoCAD drawings, spreadsheets, etc.) that were used to generate the information shown on the record drawings. These drawings shall be marked in red ink on a blackline or blueline set of drawings and shall be stamped by a Professional Engineer and/or Professional Land Surveyor registered in the state of Alabama. See Specification Section 01 78 39 for closeout submittal guidance.

END OF SECTION 01 14 00

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 26 00 – CONTRACT MODIFICATION PROCEDURES**

PART 1 - GENERAL

1.1 PROPOSAL REQUESTS

- A. The Owner may, in anticipation of ordering an addition, deletion, or revision to the Work, request Contractor to prepare a detailed proposal of cost and times to perform contemplated change.
- B. Proposal request will include reference number for tracking purposes and detailed description of and reason for proposed change, and such additional information as appropriate and as may be required for Contractor to accurately estimate cost and time impact on Project.
- C. Proposal request is for information only; Contractor is neither authorized to execute proposed change nor to stop Work in progress as result of such request.
- D. Contractor's written proposal shall be transmitted to Engineer promptly, but not later than fourteen (14) days after Contractor's receipt of Owner's written request. Proposal shall remain firm for a maximum period of 45 days after receipt by Engineer.
- E. Owner's request for proposal or Contractor's failure to submit such proposal within the required time period will not justify a Claim for an adjustment in Contract Price or Contract Times (or Milestones).

1.2 CLAIMS

- A. Include, at a minimum:
 - 1. Specific references including (i) Drawing numbers, (ii) Specification section and article/paragraph number, and (iii) Submittal type, Submittal number, date reviewed, Engineer's comment, as applicable, with appropriate attachments.
 - 2. Stipulated facts and pertinent documents, including photographs and statements.

3. Interpretations relied upon.
4. Description of (i) nature and extent of Claim, (ii) who or what caused the situation, (iii) impact to the Work and work of others, and (iv) discussion of claimant's justification for requesting a change to price or times or both.
5. Estimated adjustment in price claimant believes it is entitled to with full documentation and justification.
6. Requested Change in Contract Times: Include at least (i) Progress Schedule documentation showing logic diagram for request, (ii) documentation that float times available for Work have been used, and (iii) revised activity logic with durations including sub-network logic revisions, duration changes, and other interrelated schedule impacts, as appropriate.
7. Documentation as may be necessary as set forth below for Work Change Directive, and as Engineer may otherwise require.

1.3 WORK CHANGE DIRECTIVES

A. Procedures:

1. Engineer will:
 - a. Initiate, including a description of the Work involved and any attachments.
 - b. Affix signature, demonstrating Engineer's recommendation.
 - c. Transmit five (5) copies to Owner for authorization.
2. Owner will:
 - a. Affix signature, demonstrating approval of the changes involved.
 - b. Return four copies to Engineer, who will retain one copy; send one copy to the Construction Quality Assurance (CQA) Field Representative or other field representative; and forward two copies to Contractor.

3. Upon completion of Work covered by the Work Change Directive or when final Contract Times and Contract Price are determined, Contractor shall submit documentation for inclusion in a Change Order.
 4. Contractor's documentation shall include but not be limited to:
 - a. Appropriately detailed records of Work performed to enable determination of value of the Work.
 - b. Full information required to substantiate resulting change in Contract Times and Contract Price for Work. On request of Engineer, provide additional data necessary to support documentation.
 - c. Support data for Work performed on a unit price or Cost of the Work basis with additional information such as:
 - 1) Dates Work was performed, and by whom.
 - 2) Time records, wage rates paid, and equipment rental rates.
 - 3) Invoices and receipts for materials, equipment, and subcontracts, all similarly documented.
- B. Effective Date of Work Change Directive: Date of signature by Owner, unless otherwise indicated thereon.

1.4 CHANGE ORDERS

- A. Procedure:
1. Engineer will prepare six copies of proposed Change Order and transmit such with Engineer's written recommendation and request to Contractor for signature.
 2. Contractor shall, upon receipt, either: (i) promptly sign copies, retaining one for its file, and return remaining five copies to Engineer for Owner's signature, or (ii) return unsigned five copies with written justification for not executing Change Order.

3. Engineer will, upon receipt of Contractor signed copies, promptly forward Engineer's written recommendation and partially executed five copies for Owner's signature, or if Contractor fails to execute the Change Order, Engineer will promptly so notify Owner and transmit Contractor's justification to Owner.
 4. Upon receipt of Contractor-executed Change Order, Owner will promptly either:
 - a. Execute Change Order, retaining one copy for its file and returning four copies to Engineer; or
 - b. Return to Engineer unsigned copies with written justification for not executing Change Order.
 5. Upon receipt of Owner-executed Change Order, Engineer will transmit two copies to Contractor, one copy to the CQA Field Representative or other field representative, and retain one copy, or if Owner fails to execute the Change Order, Engineer will promptly so notify Contractor and transmit Owner's justification to Contractor.
 6. Upon receipt of Owner-executed Change Order, Contractor shall:
 - a. Perform Work covered by Change Order.
 - b. Revise Schedule of Values to adjust Contract Price and submit with next Application for Payment.
 - c. Revise Progress Schedule to reflect changes in Contract Times, if any, and to adjust times for other items of Work affected by change.
 - d. Enter changes in Project record documents after completion of change related Work.
- B. In signing a Change Order, Owner and Contractor acknowledge and agree that:
1. Stipulated compensation (Contract Price or Contract Times, or both) set forth includes payment for (i) the Cost of the Work covered by the Change Order, (ii) Contractor's fee for overhead and profit, (iii) interruption of Progress Schedule, (iv) delay and

impact, including cumulative impact, on other Work under the Contract Documents, and (v) extended overheads.

2. Change Order constitutes full mutual accord and satisfaction for the change to the Work.
3. Unless otherwise stated in the Change Order, all requirements of the original Contract Documents apply to the Work covered by the Change Order.

1.5 COST OF WORK

- A. In determining the supplemental costs allowed, the following will apply.
- B. Rental of construction equipment and machinery and the parts thereof having a replacement value in excess of \$1,000, whether owned by Contractor or rented or leased from others, shall meet the following requirements:
 1. Full rental costs for leased equipment shall not exceed rates listed in the Rental Rate Blue Book published by Equipment Watch, as adjusted to the regional area of the Project. Owned equipment costs shall not exceed the single shift rates established in the Cost Reference Guide (CRG) published by Equipment Watch. The most recent published edition in effect at commencement of actual equipment use shall be used.
 2. Rates shall apply to equipment in good working condition. Equipment not in good condition, or larger than required, may be rejected by Engineer or accepted at reduced rates.
 3. Leased Equipment: For equipment leased or rented in arm's length transactions from outside vendors, maximum rates shall be determined by the following actual usage/Payment Category:
 - a. Less than 8 hours: Hourly rate.
 - b. 8 or more hours but less than 7 days: Daily rate.
 - c. 7 or more days but less than 30 days: Weekly rate.
 - d. 30 days or more: Monthly rate.

4. Arm's length rental and lease transactions are those in which the firm involved in the rental or lease of equipment is not associated with, owned by, have common management, directorship, facilities and/or stockholders with the firm renting the equipment.
5. Financial arrangements associated with rental and lease transactions that provide Contractor remuneration or discounts not visible to the Owner must be disclosed and integrated with charged rates.
6. Leased Equipment in Use: Actual equipment use time documented by Engineer shall be the basis that equipment was on and utilized at the Project Site. In addition to the leasing rate above, equipment operational costs shall be paid at the estimated hourly operating cost rate set forth in the Rental Rate Blue Book if not already included in the lease rate. Hours of operation shall be based upon actual equipment usage to the nearest quarter hour, as recorded by Engineer.
7. Leased Equipment, When Idle (Standby): Idle or standby equipment is equipment onsite or in transit to and from the Work Site and necessary to perform the Work under the modification, but not in actual use. Idle equipment time, as documented by Engineer, shall be paid at the leasing rate determined above, excluding operational costs.
8. Owned and Other Equipment in Use: Equipment rates for owned equipment or equipment provided in other than arm's length transaction shall not exceed the single shift total hourly costs rate developed in accordance with the CRG and as modified herein for multiple shifts. This total hourly rate will be paid for each hour the equipment actually performs work. Hours of operation shall be based upon actual equipment usage as recorded by Engineer. This rate shall represent payment in full for Contractor's direct costs.
9. Owned and Other Equipment, When Idle (Standby): Equipment necessary to be onsite to perform the Work on single shift operations, but not utilized, shall be paid for at the ownership hourly expense rate developed in accordance with the CRG, provided its presence and necessity onsite has been documented by Engineer. Payment for idle time of portions of a normal workday, in conjunction with original contract Work, will not be allowed. In no

event shall idle time claimed in a day for a particular piece of equipment exceed the normal Work or shift schedule established for the Project. It is agreed that this rate shall represent payment in full for Contractor's direct costs. When Engineer determines that the equipment is not needed to continuously remain at the Work Site, payment will be limited to actual hours in use.

10. Owned and Other Equipment, Multiple Shifts: For multiple shift operations, the CRG single shift total hourly costs rate shall apply to the operating equipment during the first shift. For subsequent shifts, up to two in a 24-hour day, operating rate shall be the sum of the total hourly CRG operating cost and 60 percent of the CRG ownership and overhaul expense. Payment for idle or standby time for second and third shifts shall be 20 percent of the CRG ownership and overhaul expense.
11. When necessary to obtain owned equipment from sources beyond the Project limits, the actual cost to transfer equipment to the Site and return it to its original location will be allowed as an additional item of expense. Move-in and move-out allowances will not be made for equipment brought to the Project if the equipment is also used on original Contract or related Work.
12. If the move-out destination is not to the original location, payment for move-out will not exceed payment for move-in.
13. If move is made by common carrier, the allowance will be the amount paid for the freight. If equipment is hauled with Contractor's own forces, rental will be allowed for the hauling unit plus the hauling unit operator's wage. If equipment is transferred under its own power, the rental will be 75 percent of the appropriate total hourly costs for the equipment, without attachments, plus the equipment operator's wage.
14. Charges for time utilized in servicing equipment to ready it for use prior to moving and similar charges will not be allowed.
15. When a breakdown occurs on any piece of owned equipment, payment shall cease for that equipment and any other owned equipment idled by the breakdown.
16. If any part of the Work is shut down by Owner, standby time will be paid during nonoperating hours if diversion of equipment to other

Work is not practicable. Engineer reserves the right to cease standby time payment when an extended shutdown is anticipated.

17. If a rate has not been established in the CRG for owned equipment, Contractor may:
 - a. If approved by Engineer, use the rate of the most similar model found, considering such characteristics as manufacturer, capacity, horsepower, age, and fuel type, or
 - b. Request Equipment Watch to furnish a written response for a rate on the equipment, which shall be presented to Engineer for approval; or
 - c. Request Engineer to establish a rate.

1.6 FIELD ORDER

- A. Engineer will issue Field Orders, with three copies to Contractor.
- B. Effective date of the Field Order shall be the date of signature by Engineer, unless otherwise indicated thereon.
- C. Contractor shall acknowledge receipt by signing and returning one copy to Engineer.
- D. Field Orders will be incorporated into subsequent Change Orders, as a no-cost change to the Contract.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 26 00

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 29 00 – PAYMENT PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.2 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule. Cost-loaded Critical Path Method Schedule may serve to satisfy requirements for the schedule of values.
 - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.

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2. Submit the schedule of values to Engineer at earliest possible date, but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
 3. Sub-schedules for Phased Work: Where the Work is separated into phases requiring separately phased payments, provide sub-schedules showing values coordinated with each phase of payment.
 4. Sub-schedules for Separate Elements of Work: Where the Contractor's construction schedule defines separate elements of the Work, provide sub-schedules showing values coordinated with each element.
 5. Sub-schedules for Separate Design Contracts: Where the Owner has retained design professionals under separate contracts who will each provide certification of payment requests, provide sub-schedules showing values coordinated with the scope of each design services contract as described in Section 01 10 00 - Summary.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Engineer.
 - c. Engineer's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 2. Arrange schedule of values consistent with format of EJCDC Document C-620.
 3. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:

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- a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value of the following, as a percentage of the Contract Sum to nearest one- hundredth percent, adjusted to total 100 percent.
 - 1) Labor.
 - 2) Materials
 - 3) Equipment.
4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal sub-contract amounts in excess of five percent of the Contract Sum.
 5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 6. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
 7. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.

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8. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
 9. Purchase Contracts: Provide a separate line item in the schedule of values for each purchase contract. Show line-item value of purchase contract. Indicate owner payments or deposits, if any, and balance to be paid by Contractor.
 10. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
 11. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Engineer and paid for by the Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: Submit Application for Payment to Engineer by the 7th of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.
 1. Submit draft copy of Application for Payment seven days prior to due date for review by Engineer.

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- C. Application for Payment Forms: Use forms acceptable to Engineer and Owner for Applications for Payment. Submit forms for approval with initial submittal of schedule of values.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Engineer will return incomplete applications without action.
1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.

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- b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- F. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Engineer by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
- 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
- 1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 - 2. When an application shows completion of an item, submit conditional final or full waivers.
 - 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 - 5. Waiver Forms: Submit executed waivers of lien on forms, acceptable to the Owner.
- H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
- 1. List of subcontractors.

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2. Schedule of values.
 3. Sustainable design submittal for project materials cost data.
 4. Contractor's construction schedule (preliminary if not final).
 5. Combined Contractor's construction schedule (preliminary if not final) incorporating Work of multiple contracts, with indication of acceptance of schedule by each Contractor.
 6. Products list (preliminary if not final).
 7. Sustainable design action plans.
 8. Schedule of unit prices.
 9. Submittal schedule (preliminary if not final).
 10. List of Contractor's staff assignments.
 11. List of Contractor's principal consultants.
 12. Copies of building permits.
 13. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 14. Initial progress report.
 15. Report of preconstruction conference.
 16. Certificates of insurance and insurance policies.
 17. Performance and payment bonds.
 18. Data needed to acquire Owner's insurance.
- I. Application for Payment at Substantial Completion: After Engineer issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 29 00

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary for documenting the progress of construction during performance of the Work, including the following:
1. Preliminary construction schedule.
 2. Contractor's construction schedule.
 3. Construction schedule updating reports.
 4. Daily construction reports.
 5. Material location reports.
 6. Site condition reports.
 7. Special reports.

1.2 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.

2. Predecessor Activity: An activity that precedes another activity in the network.
 3. Successor Activity: An activity that follows another activity in the network.
- B. Cost Loading: The allocation of the schedule of values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum unless otherwise approved by Engineer.
- C. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- E. Event: The starting or ending point of an activity.
- F. Float: The measure of leeway in starting and completing an activity.
1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- G. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:

1. Working electronic copy of schedule file, where indicated.
 2. PDF electronic file.
 3. Three paper copies.
- B. Preliminary construction schedule.
1. Approval of cost-loaded, preliminary construction schedule will not constitute approval of schedule of values for cost-loaded activities.
- C. Preliminary Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- D. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
1. Submit a working electronic copy of schedule that is labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
- E. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
 3. Total Float Report: List of all activities sorted in ascending order of total float.
 4. Earnings Report: Compilation of Contractor's total earnings from the Notice to Proceed until most recent Application for Payment.
- F. Construction Schedule Updating Reports: Submit with Applications for Payment.

- G. Daily Construction Reports: Submit at monthly intervals.

1.5 QUALITY ASSURANCE

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of Engineer's request.
- B. Prescheduling Conference: Conduct conference at Project site. Review methods and procedures related to the preliminary construction schedule and Contractor's construction schedule, including, but not limited to, the following:
1. Review software limitations and content and format for reports.
 2. Verify availability of qualified personnel needed to develop and update schedule.
 3. Discuss constraints, including phasing work stages area separations interim milestones and partial Owner occupancy.
 4. Review delivery dates for Owner-furnished products.
 5. Review schedule for work of Owner's separate contracts.
 6. Review submittal requirements and procedures.
 7. Review time required for review of submittals and resubmittals.
 8. Review requirements for tests and inspections by independent testing and inspecting agencies.
 9. Review time required for Project closeout and Owner startup procedures, including commissioning activities.
 10. Review and finalize list of construction activities to be included in schedule.
 11. Review procedures for updating schedule.

1.6 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 30 days, unless specifically allowed by Engineer.
 - 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in.
 - 4. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.

5. Startup and Testing Time: Include no fewer than fifteen (15) days for startup and testing.
 6. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Engineer's administrative procedures necessary for certification of Substantial Completion.
 7. Punch List and Final Completion: Include not more than 60 days for completion of punch list items and final completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
 2. Work Under More Than One Contract: Include a separate activity for each contract.
 3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date. Delivery dates indicated shall stipulate the earliest possible delivery date.
 5. Owner-Furnished Products: Include a separate activity for each product. Include delivery date. Delivery dates indicated shall stipulate the earliest possible delivery date.
 6. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Partial occupancy before Substantial Completion.
 - e. Use of premises restrictions.

- f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
7. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
- a. Subcontract awards.
 - b. Submittals.
 - c. Purchases.
 - d. Mockups.
 - e. Fabrication.
 - f. Sample testing.
 - g. Deliveries.
 - h. Installation.
 - i. Tests and inspections.
 - j. Adjusting.
 - k. Curing.
 - l. Building flush-out.
 - m. Startup and placement into final use and operation.
8. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
- a. Structural completion.
 - b. Temporary enclosure and space conditioning.
 - c. Permanent space enclosure.

- d. Substantial Completion.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- E. Cost Correlation: Superimpose a cost correlation timeline, indicating planned and actual costs. On the line, show planned and actual dollar volume of the Work performed as of planned and actual dates used for preparation of payment requests.
1. See Section 01 29 00 – Payment Procedures, for cost reporting and payment procedures.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
 2. Unanswered Requests for Information.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
 5. Pending modifications affecting the Work and Contract Time.
- G. Recovery Schedule: When periodic update indicates the Work is fourteen (14) or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

2.2 PRELIMINARY CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit preliminary, horizontal, bar-chart-type construction schedule within fourteen (14) days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's construction schedule within 14 days of date established for the Notice to Proceed. Base schedule on the preliminary construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.4 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. General: Prepare network diagrams using activity-on-node (AON) format.
- B. Preliminary Network Diagram: Submit diagram within fourteen (14) days of date established for the Notice to Proceed. Outline significant construction activities for the first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's construction schedule using a time-scaled CPM network analysis diagram for the Work.

1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than 60 days after date established for the Notice to Proceed.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of Engineer's approval of the schedule.
 2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
 3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
 4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to coordinate with the Contract Time.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the preliminary network diagram, prepare a skeleton network to identify probable critical paths.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by Contractor's activities.

- i. Testing and commissioning.
 - j. Punch list and final completion.
 - k. Activities occurring following final completion.
 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
 4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
 - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
 5. Cost- and Resource-Loading of CPM Schedule: Assign cost to construction activities on the CPM schedule. Do not assign costs to submittal activities. Obtain Engineer's approval prior to assigning costs to fabrication and delivery activities. Assign costs under main subcontracts for testing and commissioning activities, operation and maintenance manuals, punch list activities, Project record documents, and demonstration and training (if applicable), in the amount of 5 percent of the Contract Sum.
 - a. Each activity cost shall reflect an appropriate value subject to approval by Engineer.
 - b. Total cost assigned to activities shall equal the total Contract Sum.
- E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall project schedule.

- F. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.
 2. Description of activity.
 3. Main events of activity.
 4. Immediately preceding and succeeding activities.
 5. Early and late start dates.
 6. Early and late finish dates.
 7. Activity duration in workdays.
 8. Total float or slack time.
 9. Average size of workforce.
 10. Dollar value of activity (coordinated with the schedule of values).
- G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed.
 2. Changes in early and late start dates.
 3. Changes in early and late finish dates.
 4. Changes in activity durations in workdays.
 5. Changes in the critical path.
 6. Changes in total float or slack time.
 7. Changes in the Contract Time.
- H. Value Summaries: Prepare two cumulative value lists, sorted by finish dates.

1. In first list, tabulate activity number, early finish date, dollar value, and cumulative dollar value.
2. In second list, tabulate activity number, late finish date, dollar value, and cumulative dollar value.
3. In subsequent issues of both lists, substitute actual finish dates for activities completed as of list date.
4. Prepare list for ease of comparison with payment requests; coordinate timing with progress meetings.
 - a. In both value summary lists, tabulate "actual percent complete" and "cumulative value completed" with total at bottom.
 - b. Submit value summary printouts monthly before each regularly scheduled progress meeting.

2.5 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
1. List of subcontractors at Project site.
 2. List of separate contractors at Project site.
 3. Approximate count of personnel at Project site.
 4. Equipment at Project site.
 5. Material deliveries.
 6. High and low temperatures and general weather conditions, including presence of rain or snow.
 7. Accidents.
 8. Meetings and significant decisions.
 9. Unusual events (see special reports).
 10. Stoppages, delays, shortages, and losses.

11. Meter readings and similar recordings.
 12. Emergency procedures.
 13. Orders and requests of authorities having jurisdiction.
 14. Change Orders received and implemented.
 15. Work Change Directives received and implemented.
 16. Services connected and disconnected.
 17. Equipment or system tests and startups.
 18. Partial completions and occupancies.
 19. Substantial Completions authorized.
- B. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site. Indicate the following categories for stored materials:
1. Material stored prior to previous report and remaining in storage.
 2. Material stored prior to previous report and since removed from storage and installed.
 3. Material stored following previous report and remaining in storage.
- C. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.6 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.

- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
 - 1. In-House Option: Owner may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
 - 2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.
- B. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate final completion percentage for each activity.
- C. Distribution: Distribute copies of approved schedule to Engineer Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.

2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 32 00

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 33 00 – SUBMITTAL PROCEDURES**

PART 1 - GENERAL

1.1 DEFINITIONS

- A. Action Submittal: Written and graphic information submitted by Supplier that requires Engineer's approval.
- B. Informational Submittal: Information submitted by Supplier that requires Engineer's review and determination that submitted information is in accordance with the Conditions of the Contract.

1.2 PROCEDURES

- A. Electronic Submittals: Submittals may be made in electronic format.
 - 1. Each submittal shall be an electronic file in Adobe Acrobat Portable Document Format (PDF). Use the latest version available at time of execution of the Agreement.
 - 2. Electronic files that contain more than ten (10) pages in PDF format shall contain internal bookmarking from an index page to major sections of the document.
 - 3. PDF files shall be set to open "Bookmarks and Page" view.
 - 4. Add general information to each PDF file, including title, subject, author, and keywords.
 - 5. PDF files shall be set up to print legibly at 8.5-inch by 11-inch, 11-inch by 17-inch, or 22-inch by 34-inch. No other paper sizes will be accepted.
 - 6. Submit new electronic files for each resubmittal.
 - 7. Include a copy of the Transmittal of Contractor's Submittal form, located at end of section, with each electronic file.

- B. Transmittal of Submittal:
1. Supplier shall:
 - a. Review each submittal and check for compliance with Contract Documents.
 - b. Stamp each submittal with uniform approval stamp before submitting to Engineer.
 - 1) Stamp to include Project name, submittal number, Specification number, Supplier's reviewer name, date of Supplier's approval, and statement certifying submittal has been reviewed, checked, and approved for compliance with Contract Documents.
 - 2) Engineer will not review submittals that do not bear Supplier's approval stamp and will return them without action.
 2. Complete, sign, and transmit with each submittal package, one Transmittal of Supplier's Submittal form attached at end of this section.
 3. Identify each submittal with the following:
 - a. Numbering and Tracking System:
 - 1) Sequentially number each submittal.
 - 2) Resubmission of submittal shall have original number with sequential alphabetic suffix.
 - b. Specification section and paragraph to which submittal applies.
 - c. Project title and Engineer's project number.
 - d. Date of transmittal.
 - e. Names of Supplier and Manufacturer as appropriate.
 4. Identify and describe each deviation or variation from Contract Documents.

C. Format:

1. Do not base Shop Drawings on reproductions of Contract Documents.
2. Package submittal information by individual Specification section. Do not combine different Specification sections together in submittal package, unless otherwise directed in specification.
3. Present in a clear and thorough manner and in sufficient detail to show kind, size, arrangement, and function of components, materials, and devices, and compliance with Contract Documents.
4. Index with labeled tab dividers in orderly manner.

D. Processing Time:

1. Time for review shall commence on Engineer's receipt of submittal.
2. Engineer will act upon Supplier's submittal and transmit response to Supplier not later than 30 days after receipt, unless otherwise specified.
3. Resubmittals will be subject to same review time.
4. No adjustment of Contract Times or Price will be allowed as a result of delays in progress of Work caused by rejection and subsequent resubmittals.

E. Resubmittals: Clearly identify each correction or change made.

F. Incomplete Submittals:

1. Engineer will return entire submittal for Supplier's revision if preliminary review deems it incomplete.
2. When any of the following are missing, submittal will be deemed incomplete:
 - a. Supplier's review stamp; completed and signed.
 - b. Transmittal of Supplier's Submittal; completed and signed.

- c. Insufficient number of copies unless submitted as an electronic submittal.
- G. Submittals not required by Contract Documents:
- 1. Will not be reviewed and will be returned stamped “Not Subject to Review.”
 - 2. Engineer will keep one copy and return submittal to Supplier.

1.3 ACTION SUBMITTALS

- A. Prepare and submit Action Submittals required by individual specification sections.
- B. Shop Drawings:
- 1. Copies: Six, and one reproducible, except copyrighted documents unless submitted as an electronic submittal.
 - 2. Identify and Indicate:
 - a. Applicable Contract Drawing and Detail number, products, units and assemblies, and system or equipment identification or tag numbers.
 - b. Equipment and Component Title: Identical to title shown on Plans.
 - c. Critical field dimensions and relationships to other critical features of Work. Note dimensions established by field measurement.
 - d. Project-specific information drawn accurately to scale.
 - 3. Manufacturer's standard schematic drawings and diagrams as follows:
 - a. Modify to delete information that is not applicable to the Work.
 - b. Supplement standard information to provide information specifically applicable to the Work.

4. Product Data: Provide as specified in individual specifications.
 5. Foreign Manufacturers: When proposed, include the following additional information:
 - a. Names and addresses of at least two companies that maintain technical service representatives close to Project.
 - b. Complete list of spare parts and accessories for each piece of equipment.
- C. Action Submittal Dispositions: Engineer will review, mark, stamp, and distribute as noted:
1. Approved:
 - a. Supplier may incorporate product(s) or implement Work covered by submittal.
 - b. Distribution:
 - 1) One Copy furnished Construction Quality Assurance (CQA) Field Representative.
 - 2) One copy retained in Engineer's file.
 - 3) Remaining copies returned to Supplier appropriately annotated.
 2. Approved as Noted:
 - a. Supplier may incorporate product(s) or implement Work covered by submittal, in accordance with Engineer's notations.
 - b. Distribution:
 - 1) One copy furnished Owner.
 - 2) One copy furnished CQA Field Representative.
 - 3) One copy retained in Engineer's file.
 - 4) Remaining copies returned to Supplier appropriately annotated.

3. Partial Approval, Resubmit as Noted:
 - a. Make corrections or obtain missing portions and resubmit.
 - b. Distribution:
 - 1) One copy furnished Owner.
 - 2) One copy furnished CQA Field Representative.
 - 3) One copy retained in Engineer's file.
 - 4) Remaining copies returned to Supplier appropriately annotated.
4. Revise and Resubmit:
 - a. Supplier may not incorporate product(s) or implement Work covered by submittal.
 - b. Distribution:
 - 1) One copy furnished CQA Field Representative.
 - 2) One copy retained in Engineer's file.
 - 3) Remaining copies returned to Supplier appropriately annotated.

1.4 INFORMATIONAL SUBMITTALS

A. General

1. Copies: Submit three copies, unless otherwise indicated in individual specification section or if submitted using electronic submittal.
2. Refer to individual specification sections for specific submittal requirements.
3. Engineer will review each submittal. If submittal meets conditions of the Contract, Engineer will forward copy to appropriate parties. If Engineer determines submittal does not meet conditions of the Contract and is therefore considered unacceptable, Engineer will retain one copy and return remaining copy with review comments to Supplier and require that submittal be corrected and resubmitted.

- B. Certificates:
 - 1. General:
 - a. Provide notarized statement that includes signature of entity responsible for preparing certification.
 - b. Signed by officer or other individual authorized to sign documents on behalf of that entity.
 - 2. Installer: Prepare written statements on manufacturer's letterhead certifying installer complies with requirements as specified in individual specification section.
 - 3. Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by Laws and Regulations or governing agency or specified in individual specification sections.
- C. Manufacturer's Instructions: Written or published information that documents manufacturer's recommendations, guidelines, and procedures in accordance with individual Specification section.
- D. Operation and Maintenance Data: As required by the Engineer or Owner.
- E. Special Guarantee: Supplier's written guarantee as required in individual specification sections.
- F. Test, Evaluation, and Inspection Reports:
 - 1. General: Shall contain signature of person responsible for test or report.
 - 2. Factory:
 - a. Identification of product and specification section, type of inspection or test with referenced standard or code.
 - b. Date of test, Project title and number, and name and signature of authorized person.
 - c. Test results.

- d. If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
 - e. Provide interpretation of test results, when requested by Engineer.
 - f. Other items as identified in individual specification sections.
3. Field:
- a. As a minimum, include the following:
 - 1) Project title and number.
 - 2) Date and time.
 - 3) Record of temperature and weather conditions.
 - 4) Identification of product and specification section.
 - 5) Type and location of test, Sample, or inspection, including referenced standard or code.
 - 6) Date issued, testing laboratory name, address, and telephone number, and name and signature of laboratory inspector.
 - 7) If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
 - 8) Provide interpretation of test results, when requested by Engineer.
 - 9) Other items as identified in individual specification sections.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 33 00

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 35 13 – SITE PREPARATION**

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

The Work includes preparing and maintaining the site throughout the project to facilitate construction access, environmental responsibility, site safety, security, general tidiness and cleanliness within the Work Limits and affected routes of access.

1.2 RELATED WORK

- A. Special Conditions
- B. Section 01 14 00 – Construction Staking and Layout
- C. Section 31 25 00 – Erosion and Sediment Controls
- D. Section 31 23 33 – Trenching and Backfilling

1.3 SUBMITTALS

Engineer acceptance is required for all submittals with an "ENG" designation; submittals not having an "ENG" designation are for information only. The following shall be submitted in accordance with the Special Conditions.

- A. Site Usage Plan, ENG

The Contractor shall submit a site usage plan at least fourteen (14) calendar days prior to the start of Work. The site usage plan shall include a written plan and figure(s) with designations indicating where the following items, at a minimum, will be located within the Contractor 's Work Limits at various times during the construction period.

- Location and number of temporary field offices and/or office trailers
- Locations of temporary construction fencing
- Location for site signage
- Parking areas for personal vehicles, delivery trucks, etc.
- Potable water supply and sanitary facilities

- Temporary connections to public utilities
- Location of tracking pad and vehicle wash station
- Detention ponds, silt fences, etc. as required for the erosion control plan (Section 31 25 00 – Erosion and Sediment Controls)
- Fuel storage area
- Point of entry or entries from local roadways
- Storage areas for stone, aggregates, soil, and other bulk materials, including excavated, dredged, and demolished materials
- Storage areas for piping and other drainage connections
- Other stationary construction equipment, if used

PART 2 - MATERIALS

2.1 TEMPORARY SIGNAGE

The Contractor shall supply, erect, and maintain in good condition a Project sign according to the specifications.

PART 3 - EXECUTION

3.1 WORKING AREA

The extent of the Contractor's Work Limits is indicated on the Drawings. The Contractor shall stake out and maintain visible demarcation of the Work Limits at all times throughout construction.

The Contractor is cautioned to prevent construction equipment from damaging the existing piezometer instruments. The Contractor shall repair and/or replace, at no expense to the Owner, any damage occurring during construction caused by the actions or negligence of the Contractor.

Any excavation or fill shall be in accordance with Section 31 23 33 – Trenching and Backfilling, Section 31 20 00 – Earth Moving, or as directed by the Engineer.

3.2 SITE MAINTENANCE

The Contractor shall maintain the work site(s) in a clean and workman-like manner at all times. At the completion of construction, the Contractor shall restore the area in

accordance with the provisions in Section 31 23 33 – Trenching and Backfilling and Section 31 20 00 – Earth Moving.

3.3 FIELD OFFICE AND PARKING AREAS

The Contractor shall coordinate placement of offices and employee parking with the Owner and Engineer. No existing buildings within or nearby the Work Limits shall be used. At a minimum, the parking area shall have a stone aggregate surface and shall be maintained throughout the duration of the project. Parking areas shall be available for use by the Owner and Engineer.

3.4 STORAGE AREAS

Materials and equipment delivered to the Project site shall be temporarily stored and maintained in areas selected by the Contractor and accepted by the Owner and Engineer prior to incorporation into the Work.

3.5 TRACKING PAD/STREET CLEANING

The Contractor shall construct and utilize a gravel tracking pad for the purpose of removing mud and debris from trucks and equipment before leaving the site(s). This pad shall be equipped with high-pressure wash hoses and debris/sediment/oil traps and shall be used to prevent soil, rock and debris from being tracked onto roadways.

If, after using the tracking pad, mud and dust continue to collect on traveled roads, the Contractor shall clean up the debris immediately. The Contractor shall be aware of this possibility and react accordingly to clean the traveled roadways to the satisfaction of the Engineer.

END OF SECTION 01 35 13

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 01 10 00 – Summary: For work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces,
- B. Engineer, occupants of Project, testing agencies, and authorities having jurisdiction.
- C. Water Service: Pay water-service use charges for water used by all entities for construction operations.
- D. Water Service from Existing System: Water from existing water system is available for use and shall be metered for payment of use charges. Provide connections and extensions of services as required for construction operations.
- E. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.

1.4 INFORMATIONAL SUBMITTALS

- A. Copies of permits and approvals for construction as required by Laws and Regulations and governing agencies.

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.6 MOBILIZATION

- A. Mobilization shall include, but not be limited to, these principal items:
 - 1. Obtaining required permits.
 - 2. Moving Contractor's field office and equipment required for first month operations onto Site.
 - 3. Installing temporary construction power, wiring, and lighting facilities.
 - 4. Providing onsite sanitary facilities and lighting facilities.
 - 5. Arranging for and erection of Contractor's work and storage yard.
 - 6. Posting OSHA required notices and establishing safety programs and procedures.
 - 7. Having Contractor's superintendent at Site full time.

1.7 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance,

and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil minimum thickness, with flame- spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.
- B. Dust-Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches.
- C. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
 - 1. Locate facilities to limit site disturbance as specified in Section 01 10 00 – Summary.

3.2 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 - 1. Provide construction for Contractor's temporary offices, shops, and sheds located as appropriate to the stage and demands of the work.
 - 2. Provide on-site office facilities for Engineer for the duration of the contract available commencing within thirty (30) days of any on-site work commencement. Remove at Engineer's direction not

- sooner than Substantial Completion nor later than 60 days after Substantial Completion.
3. Maintain Contractor's support facilities until Substantial Completion inspection. Remove following Substantial Completion but before Final Completion.
 4. Construct, maintain, relocate, and remove other temporary facilities as appropriate to the progress of the work.
- B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations.
1. Provide dust-control treatment that is nonpolluting and non-tracking. Reapply treatment as required to minimize dust.
- C. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to MAWSS standards.
 3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.
 4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course.
- D. Traffic Controls: Comply with requirements of authorities having jurisdiction.
1. Protect existing site improvements to remain including curbs, pavement, and utilities.

2. Maintain access for fire-fighting equipment and access to fire hydrants.
- E. Parking: Provide temporary parking areas for construction personnel.
- F. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
- G. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
1. Identification Signs: Provide Project identification signs as indicated on Plans.
 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 3. Maintain and touchup signs so they are legible at all times.
- H. Waste Disposal Facilities: Provide approve containers for collection and disposal of waste material, debris, and rubbish. At least weekly, dispose of such waste materials, debris, and rubbish offsite.

3.3 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

1. Comply with work restrictions specified in Section 01 10 00 – Summary.
- C. Temporary Erosion and Sedimentation Control: Comply with the ALDOT Standard Specifications. Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to erosion- and sedimentation-control Plans.
1. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
 2. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
 3. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Security Enclosure and Lockup: Install temporary enclosure around areas of open material storage. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- G. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- H. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

3.4 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Operate Project-identification-sign lighting daily from dusk until 12:00 midnight.
- D. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- E. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.

3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 01 77 00 – Closeout Procedures

END OF SECTION 01 50 00

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 57 23 – STORMWATER POLLUTION PREVENTION**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This work consists of construction and maintenance of erosion control and management control features as described in these Plans and Specifications for the clearing and grading of the proposed site.
- B. Facility & Property Information:
 - 1. Facility Name: Big Creek Lake Dam
 - 2. Property Owner: Mobile Area Water and Sewer System (MAWSS)
4725 Moffett Road
Mobile, AL 36618
- C. The Stormwater Pollution Prevention Plan includes:
 - 1. Certification of Compliance
 - 2. NPDES Notice of Intent (NOI)
 - 3. Erosion and Sediment Controls
 - 4. Other Controls

5. Stormwater Management Controls
6. Inspection and Maintenance of Controls
7. Records of Construction Activities
8. NPDES Notice of Termination (NOT)

D. Related Sections include the following:

1. Section 01 50 00 – Temporary Facilities and Controls: For temporary utilities, temporary construction and support facilities, temporary security and protection facilities, and environmental protection measures during site operations.
2. Section 31 20 00 – Earth Moving: For excavation in borrow areas and stockpiling materials, removal of unsuitable material, foundation preparation, construction of embankments, and other incidental earthwork.
3. Section 31 25 00 – Erosion and Sedimentation Controls

PART 2 - PRODUCTS

2.1 MATERIALS

A. Erosion and Sediment Controls:

1. Temporary Seeding, Fertilizer, Mulch, Silt Fencing, Hay Bales and Stabilized Construction Entrance shall be in accordance with State Department of Transportation Specifications.

PART 3 - EXECUTION

3.1 PREPARATION

A. Certification of Compliance:

1. Contractor and Sub-Contractors shall sign the Certification of Compliance as required and submit to local or state environmental authorities.
- B. Notice of Intent (NOI) local or state environmental authorities:
1. Contractor shall complete and submit the “Notice of Intent (NOI) to Discharge Stormwater Associated with Construction Activity” to the local or state environmental authorities.
- C. Notice of Termination (NOT):
1. Contractor shall complete and submit the “Notice of Termination (NOT) to Discharge Stormwater Associated with Construction Activity” to the local or state environmental authorities.

3.2 FIELD PROCEDURES

- A. Erosion and Sediment Controls:
1. Erosion and Sediment Controls for this project will include temporary seeding (and mulching where required) of all disturbed areas, silt fencing and check dams as indicated. These measures are to be used for erosion and sediment controls throughout the time of construction. Temporary seeding, fertilizer, silt fencing and check dams shall be executed in accordance with State Department of Transportation Specifications. Locate and clearly flag trees and vegetation to remain or to be relocated.
 2. Perimeter silt fencing shall be erected immediately and prior to any clearing and grading activities. Construction of controls and stabilization measures shall be by personnel experienced and/or adequately trained in this type of installation.
 3. Controls shall be constructed and the stabilization measures applied in the order indicated on the Drawing. Construction of controls and stabilization measures shall be by personnel experienced and/or adequately trained in this type of installation.

B. Other Controls:

1. In addition to erosion and sediment controls, the Contractor shall be responsible in addressing other potential pollutant sources on the construction site, which may include compliance with applicable State and Municipal waste disposal, control of offsite vehicle tracking, and control of dust generated by construction activities. A stabilized construction entrance shall be installed if indicated.
2. The Contractor shall be responsible for all temporary drainage conditions during construction of the Project. Temporary drainage ditches and swales and, in particular, sedimentation basins, shall be provided during construction - as required by the phases and means and methods employed by the Contractor. At no time will the Contractor be allowed to drain directly (sheet flow) into the subsurface collections system or adjacent properties.

C. Inspection and Maintenance of Controls:

1. Contractor shall inspect controls every 7 days or within 24 hours of a storm of 0.5 inches in depth. All disturbed areas of the site, areas of material storage, and all of the erosion and sediment controls should be inspected. Controls must be in good operating condition until the area they protect has been completely stabilized and the construction activity is complete.
2. During each inspection, the contractor should complete the stabilization or structural measures inspection report form, included in this specification and note any damages or deficiencies.

D. Records of Construction Activities:

1. Contractor shall keep records of the construction activity on-site. Records shall include, but not limited to:
 - a. All completed inspection report forms.
 - b. Dates of major grading activities in all areas of the site.

- c. Dates of stabilization of all areas of the site
 2. A copy of the Stormwater Pollution Prevention Plan must be kept at the construction site from the time construction begins until the site is finally stabilized.
 3. The Contractor shall retain copies of the Stormwater Pollution Prevention Plan and all other reports required by the permit, as well as all of the data used to complete the NOI for 3 years after the completion of final site stabilization. The Contractor shall provide copies to the Engineer.
- E. Report Releases of Reportable Quantities:
1. Contractor shall have the responsibility to report spills of hazardous substances in amounts that equal or exceed Reportable Quantity (RQ) levels in accordance with EPA regulations (40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302). If there is a RQ release during the construction period, the Contractor must take the following minimum steps:
 - a. Notify the National Response Center immediately at (800) 424-8802.
 - b. Submit a written description of the release to the EPA Regional Office providing the date and circumstances of the release and the steps to be taken to prevent another release.
 - c. Notify the Engineer.

END OF SECTION 01 57 23

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 77 00 – CLOSEOUT PROCEDURES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.
- B. Related Requirements
 - 1. Section 01 78 23 – Operation and Maintenance Data: For operation and maintenance manual requirements.
 - 2. Section 01 78 39 – Project Record Documents: For submitting record drawings, record specifications, and record product data.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.

1.4 SUBMITTALS

- A. Submit prior to application for final payment:
 - 1. Record Documents.
 - 2. Special bonds, special guarantees, and service agreements.
 - 3. Consent of Surety to Final Payment.
 - 4. Release of Waivers of Liens and Claims.
 - 5. Extra Materials: Submit as required by individual Specification sections.
- B. Final Application for Payment: Submit in accordance with procedures and requirements stated in Section 01 29 00 – Payment Procedures.

1.5 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 - 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.

4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Engineer. Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Engineer's signature for receipt of submittals.
 5. Submit test/adjust/balance records.
 6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 01 79 00 - Demonstration and Training.
 6. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 7. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.

8. Complete final cleaning requirements.
 9. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Engineer, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for final completion.

1.6 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Section 01 29 00 – Payment Procedures.
 2. Certified List of Incomplete Items: Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected ("punch list"), endorsed and dated by Engineer. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit consent of surety.
 5. Submit final liquidation damages settlement statement, acceptable to Owner.
 6. Completion of project closeout requirements.

7. Completion of items specified for completion beyond time of substantial completion (regardless of whether special payment application was previously made).
 8. Assurance, satisfactory to Owner, that unsettled claims will be settled and that work not actually completed and accepted will be completed without undue delay.
 9. Proof satisfactory to Owner that taxes, fees, and similar obligations of Contractor have been paid.
 10. Removal of temporary facilities, services, surplus materials, rubbish and similar provisions.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.7 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of areas
 2. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Engineer.
 - d. Name of Contractor.

- e. Page number.
3. Submit list of incomplete items in the following format:
 - a. MS Excel electronic file. Engineer will return annotated file.
 - b. PDF electronic file. Engineer will return annotated file.
 - c. Three paper copies. Engineer will return two copies.

1.8 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Engineer for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-inch by 11-inch paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS (NOT USED)

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project.
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
- C. Construction Waste Disposal: All waste shall be legally disposed of offsite at permitted waste disposal facility.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.

- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specify condition.

END OF SECTION 01 77 00

**TECHNICAL SPECIFICATIONS
DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 78 39 – PROJECT RECORD DOCUMENTS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - 4. Miscellaneous record submittals.
- B. Related Requirements:
 - 1. Section 01 14 00 – Construction Staking Layout: For Record Drawing requirements.
 - 2. Section 01 77 00 – Closeout Procedures: For general closeout procedures.
 - 3. Section 01 78 23 – Operation and Maintenance Data: For operation and maintenance manual requirements.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit two set(s) of marked-up record prints.

2. Number of Copies: Submit copies of record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit two paper-copy set(s) of marked-up record prints.
 - 2) Submit PDF electronic files of scanned record prints and one of file prints.
 - 3) Submit record digital data files and one set(s) of plots.
 - 4) Engineer will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal:
 - 1) Submit one paper copy set(s) of marked-up record prints.
 - 2) Submit record digital data files and three set(s) of record digital data file plots.
 - 3) Plot each drawing file, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit one paper copy or annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit one paper copy or annotated PDF electronic files and directories of each submittal.
 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual
- D. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record- keeping requirements and submittals in connection with various construction activities. Submit one paper copy or annotated PDF electronic files and directories of each submittal.

- E. Reports: Submit written report weekly indicating items incorporated into project record documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one complete set of the Plans, marked to show changes. The contractor will maintain "Working" drawings throughout the progress of the work. Drawings shall be a "living" record of all approved changes to the construction documents as the work progresses. Additionally, drawings shall include both horizontal and vertical references with three (3) tie dimensions to visible permanent physical features for all building corner, structures, laterals valves and pipe appurtenances, and location of water mains and force mains with respect to the centerline of adjacent roads with depth below grade.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.

2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Plans.
 - b. Revisions to details shown on Plans.
 - c. Locations and depths of encountered existing and constructed underground utilities.
 - d. Revisions to routing of piping and conduits.
 - e. Actual equipment locations.
 - f. Locations of concealed internal utilities.
 - g. Changes made by Change Order or Work Change Directive.
 - h. Changes made following Engineer's written orders.
 - i. Details not on the original Plans.
 - j. Field records for variable and concealed conditions.
 - k. Record information on the Work that is shown only schematically
3. Mark the Plans and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
5. Mark important additional information that was either shown schematically or omitted from original Plans.
6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

- B. For pile lines, conduits and other buried components, alternatively to collection of reference distances, maintain a digital file of x, y, and z coordinates of all constructed components along with identifying descriptors with each point. Incorporate digital point information into final record drawing digital data files.
- C. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Engineer. When authorized, prepare a full set of corrected digital data files of the Plans, as follows:
1. Format: Same digital data software program, version, and operating system as the original Plans.
 2. Format: DWG, Version, Microsoft Windows operating system.
 3. Format: Annotated PDF electronic file with comment function enabled.
 4. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
 5. Refer instances of uncertainty to Engineer for resolution.
 6. Engineer will furnish Contractor one set of digital data files of the Plans for use in recording information.
 - a. See Section 01 33 00 – Submittal Procedures for requirements related to use of Engineer's digital data files.
 - b. Engineer will provide data file layer information. Record markups in separate layers.
- D. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing record Drawings where Engineer determines that neither the original Plans nor Shop Drawings are suitable to show actual installation.
1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.

2. Consult Engineer for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared record Drawings into record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- E. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Format: Annotated PDF electronic file with comment function enabled.
 3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Plans. Name each file with the sheet identification. Include identification in each digital data file.
 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Engineer.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.

2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 5. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as annotated PDF electronic file or paper copy or scanned PDF electronic file(s) of marked-up paper copy of Specifications.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as annotated PDF electronic file or paper copy or scanned PDF electronic file(s) of marked-up paper copy of Product Data.
1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF electronic file.
 - 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Engineer's reference during normal working hours.

END OF SECTION 01 78 39

**TECHNICAL SPECIFICATIONS
DIVISION 02 – EXISTING CONDITIONS
SECTION 02 41 00 – DEMOLITION**

PART 1 - GENERAL

1.1 SUMMARY

- A. The Contractor shall provide all labor, materials, equipment and incidentals as shown, specified and required for demolitions of existing civil, landscaping, structural, architectural, mechanical, HVAC, electrical, and instrumentation facilities as indicated, in accordance with the Contract Documents.

1.2 COORDINATION

- A. The Contractor shall carefully coordinate the Work in areas where existing facilities are interconnected with new facilities and where existing facilities remain operational. The Work as indicated is not all-inclusive, and the Contractor shall be responsible to perform the reconstruction indicated plus that which can be reasonably inferred from the Contract Documents as necessary to complete the Project. The Specifications and Drawings identify the major facilities that shall be demolished and reconstructed, but auxiliary utilities such as water, air, chemicals, drainage, lubrication, fluid power, electrical wiring, controls, and instrumentation are not necessarily shown.
- B. The Contractor shall note that the Drawings used to indicate demolition and reconstruction are based on survey of surface features, record information, site photographs, other provided describing the existing facilities. The record information has been reproduced in the Drawings to show existing conditions and to clarify the scope of Work. The information provided may not be complete or accurate. The Contractor shall conduct a comprehensive survey at the Site to verify the correctness and exactness of the Drawings, the scope of Work, and the extent of auxiliary utilities. A complete set of record drawings is available for review at the Project site.
- C. While demolition and reconstruction are being performed, the Contractor shall provide adequate access for the continued operation and maintenance of equipment and treatment processes.

The Contractor shall erect and maintain fences, warning signs, barricades, and other devices around the reconstruction as required for the protection of the Contractor's employees and the Owner's personnel at the plant. The Contractor shall remove such protection when reconstruction activities are complete, or as Work progresses, or when requested by the Engineer.

- D. The Contractor shall be responsible for acquiring appropriate necessary permits for the work. Copies of the permits shall be submitted to the Owner prior to commencement of demolition.

1.3 CONTRACTOR SUBMITTALS

- A. A demolition plan shall be submitted to the Engineer for review. The demolition plan shall detail demolition and reconstruction activities and procedures, including operational sequences, in accordance with Section 01 33 00 – Submittal Procedures. The procedures shall provide for safe conduct of the Work, careful removal and disposition of materials and equipment, protection of existing facilities which are to remain undisturbed, coordination with existing facilities to remain in service, and timely disconnection and reconnection of utility services. The procedures shall include a detailed description and time schedule of the methods and equipment to be used for each operation and the sequence of operation.
- B. The demolition plan shall include identification of items to be salvaged or relocated. A storage plan for salvaged items shall be included.
- C. The Engineer's review shall be limited to a review of the scope and intent of demolition as required by the contract documents. The Contractor shall be responsible for the means and methods to ensure the work is conducted in a safe and proper manner. The Engineer's review of the demolition plan shall in no way alleviate the Contractor from this responsibility.
- D. Protection:
 - 1. Perform all demolition and removal Work to prevent damage or injury to structures, occupants thereof and adjacent features which might result from falling debris or other causes, and so as not to interfere with the use, and free and safe passage to and from adjacent structures.

2. Closing or obstructing of roadways, sidewalks, and passageways adjacent to the Work by the placement or storage of materials will not be permitted, and all operations shall be conducted with a minimum interference to traffic on these ways.
 3. Erect and maintain barriers, lights, sidewalk sheds, and other necessary protective devices.
 4. Repair damage to facilities to remain, or to any property belonging to the Owner or occupants of the facilities.
- E. Scheduling:
1. Carry out operations to avoid interference with Owner's operations and Work in the existing facilities.
- F. Notification:
1. At least forty-eight (48) hours prior to commencement of a demolition or removal activity, notify the Engineer in writing of the proposed schedule. The Owner will inspect the existing equipment and mark for identification those items which are to remain the property of the Owner. Do not start removals without the permission of the Engineer.
- G. Explosives:
1. Do not bring explosives onto site.
 2. The use of explosives will not be permitted.

1.4 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Reference Specifications
1. Section 01 33 00 – Submittal Procedures
 2. Section 31 10 00 – Site Clearing

1.5 DEMOLITION

A. Items to be removed include: (See Drawing Sheet C-101 Demolition Plan)

Item	Description
28" Corrugated Plastic Pipe (CPP)	Damaged 28" diameter CPP is to be removed.
Terracotta Drains	Ten (10) terracotta drains on downstream face of dam are to be removed.
Trees and surrounding vegetation	Remove trees and surrounding vegetation from the wooded area within the fill placement area.
Flume Box pads	Remove the existing flume box pads. The flume boxes will be relocated. See Section 1.7.
Access Road	Remove the deleterious material (broken concrete and gravel) used to build the existing access road.

1.6 SALVAGE

A. Items of existing equipment, piping, valves, electrical gear, instrumentation, utilities, and appurtenances indicated to be salvaged shall be removed without any degradation in condition from that prior to removal. Salvaged items shall be stockpiled and protected on the Site at a location chosen by the Engineer. The Contractor shall be responsible to properly safeguard the salvaged items against damage and loss during removal and handling.

B. Items to be salvaged include:

Item	Description
Rip Rap	Rip rap can be salvaged and used as fill in areas that are approved by the Engineer and/or Owner.

1.7 RELOCATION

- A. Items of existing equipment, piping, valves, electrical gear, instrumentation, utilities, and appurtenances to be relocated shall be removed without any degradation in condition from that prior to removal. The Contractor shall be responsible to properly safeguard the relocated items against damage and loss during removal, handling, storage, and installation in the new location.
- B. Items to be relocated include:

Item	Description
Flume Boxes	Relocate the four (4) flume boxes per drawings

1.8 ABANDONMENT

- A. Items of existing equipment, piping, valves, electrical gear, instrumentation, utilities, and appurtenances to be abandoned shall be prepared by the Contractor as indicated.
- B. Items to be abandoned include:

Item	Description
Piezometers	Following construction completion, several piezometers are recommended to be abandoned, under a separate scope.

1.9 REHABILITATION

- A. Existing civil, landscaping, structural, architectural, and instrumentation Work disturbed or damaged by reconstruction activities shall be repaired and rehabilitated as indicated.
- B. Damaged items shall be repaired or replaced with new items to restore items or surfaces to a condition equal to and matching that existing prior to damage.

1.10 DISPOSAL

- A. The Contractor shall be responsible for the offsite disposal of debris resulting from reconstruction in compliance with local, state, and federal codes and requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor shall coordinate demolition and reconstruction Work with the Owner and Engineer. Unless otherwise indicated, the Contractor shall be responsible for the sequence of activities. Work shall be performed in accordance with applicable safety rules and regulations.
- B. The Contractor shall verify that any utilities connected to structures, equipment, and facilities to be removed, relocated, salvaged, replaced, or abandoned are rendered inoperable, replaced with new utilities, or adequately bypassed with temporary utilities before proceeding with demolition and reconstruction.
- C. The Contractor shall take precautions to avoid damage to adjacent facilities and to limit the Work activities to the extent indicated. If reconstruction beyond the scope indicated is required, the Contractor shall obtain approval from the Engineer prior to commencing.

3.2 PROTECTION OF EXISTING FACILITIES

- A. Before beginning any demolition, the Contractor shall carefully survey the existing facilities and examine the Specifications and Plans to determine the extent of demolition and coordination with the Work. Existing facilities not subject to demolition shall be protected and maintained. Damaged existing facilities shall be repaired to the previous condition or replaced.
- B. Persons shall be afforded safe passages around areas of demolition.
- C. Structural elements shall not be overloaded. The Contractor shall be responsible for shoring, bracing, or adding new supports as may be

required for adequate structural support as a result of Work performed under this Section. The Contractor shall remove temporary protection when the Work is complete or when so authorized by the Engineer.

- D. The Contractor shall carefully consider bearing loads and capacities before placement of equipment and material on Site. In the event of any questions as to whether an area to be loaded has adequate bearing capacity, the Contractor shall consult with the Engineer prior to the placement of such equipment or material.
- E. The Contractor shall prevent the release of construction debris into Big Creek or the reservoir headwaters. Additionally, the contractor shall comply with applicable environmental restrictions during the construction phase as levied by the appropriate permit requirements.

3.3 DEMOLITION

- A. The Contract Documents indicate existing facilities to be demolished. Auxiliary utilities including such services as water, air, drainage, lubrication, fluid power, electrical wiring, controls, and instrumentation are not necessarily indicated. The Contractor shall verify the scope of the Work to remove the equipment indicated; coordinate its shutdown, removal, replacement, and submit an outage plan. The removal of existing facilities for demolition shall include the following requirements:
 - 1. Damage to the existing structure shall be repaired as indicated.
 - 2. Exposed electrical conduits and associated wiring shall be removed. Resultant openings in structures shall be repaired as indicated.
 - 3. Associated instrumentation devices shall be removed.
 - 4. Auxiliary utility support systems shall be removed.
 - 5. The area shall be thoroughly cleaned such that little or no evidence of the previous equipment installation will remain.
- B. The Contractor shall perform a functional test of existing equipment that is relocated and reinstalled to ensure the equipment functions in the manner documented during the initial inspection. The Contractor shall inform the Engineer in writing a minimum of five (5) working days prior to the functional testing in order for the Owner and Engineer to witness the

test. If, in the opinion of the Engineer, the relocated equipment does not function in a satisfactory manner, the Contractor shall make repairs and modifications necessary to restore the equipment to its original operating condition at no additional cost to the Owner.

3.4 REHABILITATION

- A. Certain areas of existing structures around the top of the piers and the like will be affected by Work necessary to complete modifications under this Contract. The Contractor shall be responsible to rehabilitate those areas affected by its demolition activities, to the condition of those areas prior to Contractor's start of Work, at a minimum.

3.5 DISPOSAL

- A. Demolition and removal of debris shall minimize interference with roads, walks, and other adjacent occupied or used facilities that shall not be closed or obstructed without permission from the Owner. Alternate routes shall be provided around closed or obstructed traffic ways.
- B. Site debris, rubbish, and other materials resulting from reconstruction operations shall be legally removed and disposed of. Equipment to be demolished shall be cleaned prior to demolition and the wash water properly disposed of.
- C. Refuse, debris, and waste materials resulting from demolition and clearing operations shall not be burned.

3.6 OCCUPANCY AND POLLUTION CONTROL

- A. Water sprinkling, temporary enclosures, and other suitable methods shall be used to limit dust and dirt rising and scattering in the area. The Contractor shall comply with government regulations pertaining to environmental protection.
- B. Water shall not be used if it creates hazardous or objectionable conditions such as ice, flooding, or pollution.

3.7 CLEANING

- A. During and upon completion of Work, the Contractor shall promptly remove tools and equipment, surplus materials, rubbish, debris, and dust and shall leave areas affected by Work in a clean, approved condition.

- B. Adjacent structures shall be cleaned of dust, dirt, and debris caused by reconstruction, as requested by the Engineer or directed by governing authorities, and adjacent areas shall be returned to condition existing prior to start of Work.

END OF SECTION 02 41 00

**TECHNICAL SPECIFICATIONS
DIVISION 03 – CONCRETE
SECTION 03 30 00 – CAST-IN-PLACE CONCRETE**

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This Technical Specification covers the furnishing of all material, equipment, labor and plant, and performing all operations specified herein, including the manufacturing, transporting, placing, finishing, and curing of all cast-in-place concrete.

1.2 RELATED DOCUMENTS

- A. The conditions and description of work shown in other sections of these Technical Specifications, Plans for Construction, and the Quality Management Plan (QMP) apply to this Section.

1.3 SUMMARY

- A. Section Includes:
 - 1. Installation procedures for cast-in-place concrete
 - 2. Concrete design requirements
- B. Related Sections
 - 1. Division 03 – Concrete
 - 2. Division 31 – Earthwork

1.4 REFERENCE

- 1. In addition to complying with all pertinent codes and regulations, the Contractor shall comply with all applicable provisions of the following standards:
- 2. American Concrete Institute, ACI 304, "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete".

3. American Concrete Institute, ACI 308, "Recommended Practice for Curing Concrete".
4. American Concrete Institute, ACI 309, "Recommended Practice for Consolidation of Concrete".
5. American Concrete Institute, ACI 311, "Recommended Practice for Concrete Inspection".
6. American Society for Testing and Materials, ASTM C-94 "Standard Specification for Ready-Mixed Concrete".

1.5 SUBMITTALS

A. Materials List

1. Contractor shall, ten (10) working days before any concrete is delivered to the project site, submit to the CQA Manager a complete list of all materials to be furnished and installed under this portion of the work, showing manufacturer's name and catalog number of all items such as admixtures, curing compounds, cement and the name and address of the ready-mix concrete supplier (if applicable).

B. Design Mix

1. At least ten (10) working days before any concrete is delivered to the job site, Contractor shall submit written reports to the Engineer detailing components of the design mix and listing previous results of the mix as listed in PART 5 - DESIGN MIXES.

PART 2 - PRODUCTS

- A. Concrete shall be composed of Portland cement, water, fine aggregate, coarse aggregate, and when specified or accepted in writing by the Engineer, admixtures for entraining air or retarding agents to slow concrete curing.
- B. The design of the concrete mixture will be based on the water-cement ratio necessary to secure (1) a plastic workable mixture suitable for the specific conditions of placement and (2) when properly cured, a product having durability, impermeability and strength in accordance with all the requirements set forth by these Technical Specifications.

- C. The concrete mixture shall be designed so that the concrete placed according to Plans for Construction shall produce a minimum laboratory cylinder compressive strength equal to the strength designated in PART 3 - DESIGN REQUIREMENTS for the class of concrete specified.

PART 3 - DESIGN REQUIREMENTS

- A. All cast-in place concrete shall meet the following proportioning and design requirements:

Minimum 28-Day Compressive Strength (psi)	Air Content (%)	Minimum Cementitious Content (lbs./cu.yd.)	Maximum Water/ Cementitious Ratio	Slump (inches)
4,000	5-7	564	0.45	3-5

PART 4 - CONSISTENCY

4.1 GENERAL

- A. The consistency of concrete shall be such that it can be worked readily into corners and angles of forms and around reinforcement without permitting the materials to segregate or excess water to collect on the surface. The extreme limits of allowable slump when tested in accordance with ASTM Designation C-143 shall be 3 to 5 inches.

4.2 MIXING WATER

- A. Mixing water shall be potable water. The ratio of mixing water to cement shall not be changed without prior acceptance from the Engineer.

4.3 READY-MIX DELIVERY SLIPS

- A. Contractor shall:
1. Keep a record at the job site showing time and place of each batch of concrete, together with ready-mix delivery slips (batch tickets) certifying contents and proportions of each truck load delivered to the site.
 2. Make records available to the CQA Manager and team for observance upon request.

3. Upon completion of this portion of the work, deliver the record and delivery slips to the CQA Manager.

PART 5 - DESIGN MIXES

5.1 GENERAL

- A. The Owner will be responsible for the design of the concrete mixtures and the quality of the concrete, including ready-mix batches. The Owner will use an independent testing laboratory, accepted by the CQA Manager, for preparing and reporting proposed mix designs.

5.2 PROPORTIONING AND REPORTS

- A. Design mixes shall be proportioned by weight for each class of concrete required, complying with ACI-211 "Recommended Practice for Selecting Proportions for Normal and Heavyweight Concrete." At least ten (10) working days prior to the start of any concrete work, the Contractor shall furnish to the CQA Manager, written reports of each design mix for each class of concrete. The reports shall contain:
 1. Project Identification Name and Number as identified in these Technical Specifications
 2. Date of Report
 3. Name of Contractor
 4. Name of Concrete Supplier
 5. Name of Concrete Testing Service
 6. Class of Concrete
 7. Complete Identification of Aggregate Supply Source
 8. Test Results of Aggregates for Compliance with Specified Requirements
 9. Scale Weight of Each Aggregate
 10. Absorbed Water in Each Aggregate
 11. Brand, Type, Composition and Amount of Cement

12. Brand, Type, Composition and Amount of Pozzolan
13. Amounts of Water Used in Trial Mixes
14. Brand, Type and Amount of Air-entraining Agents (If Used) in Trial Mixes
15. Proportions of Each Material (by Weight) per Cubic Yard
16. Gross Weight and Yield per Cubic Yard of Trial Mixes
17. Measured Slump
18. Measured Air Content
19. Compressive Strength Developed at 7 Days and 28 Days from Not Less Than Three (3) Test Cylinders Cast for Each 7 Day and 28 Day Test, and for Each Design Mix

5.3 DESIGN CRITERIA

- A. The concrete mixes shall be designed so that the compressive strength of laboratory-cured cylinders, for each required strength, will be at least 15 percent greater than the minimum specified compressive strength; and such that not more than one test of any ten consecutive tests for strength, will have a value of less than 90 percent of the required strength.

5.4 ADJUSTMENTS

- A. The criteria specified herein are maximums or minimums and shall not be construed to predetermine fixed quantities of materials in the mix design, or to preclude change of an accepted mix design at any time. Mix design adjustments may be requested when characteristics of materials, job conditions, weather, test results or other circumstances warrant; and as accepted by the CQA Manager. Laboratory test data for revised mix designs and strength results must be submitted to and accepted by the CQA Manager before being used in the work.

5.5 AIR-ENTRAINED CONCRETE

- A. All concrete shall be air-entrained. Air-entrainment shall be accomplished by using an air-entrained Portland cement or by using an air-entraining admixture with normal Portland cement. If the entrained air content falls below the specified limits when using air-entrained cement, an air-entraining admixture

shall be added in sufficient quantity to bring the entrained air content within the specified limits. If the entrained air content is found to be greater than the maximum specified limits when using an air-entraining cement, the use of that cement shall be prohibited and air-entrainment shall be accomplished by using an air-entraining admixture with Portland cement. Air-entraining admixtures shall be added to a portion of the mixing water by means of a mechanical batcher in a manner that will insure uniform distribution of the agent throughout the batch.

PART 6 - FAILURE TO MEET STRENGTH REQUIREMENTS

6.1 NOTIFICATION

- A. When it is determined that such concrete shall be removed and replaced, Contractor shall be notified in writing, stating the extent of the replacement to be made.

PART 7 - CONCRETE SAMPLING AND TESTING

7.1 GENERAL

Standard tests of the material and concrete shall be made by the Owner's testing service, as required by these Technical Specifications. Retests required due to non-conformity of the materials shall also be made by the Owner's testing service as reviewed and accepted by the CQA Manager. The following tests will be performed by the methods and minimum frequencies indicated.

- A. Sampling Fresh Concrete
 1. ASTM C-172; each sample shall be obtained from a different batch of concrete on a random basis.
- B. Slump
 1. ASTM C-143; one test for each set of compressive strength test specimens and for each truck for acceptance.
- C. Air Content
 1. ASTM C-231, pressure method; one for each set of compressive strength test specimens.

D. Concrete Testing Sample

1. ASTM C-31; one set of six (6) standard cylinders for each compressive strength test. One set of specimens shall be cast from a sample of concrete placed in one day or each 25 cubic yards placed, whichever is minimum. The CQA Manager or his representative will determine and record the batch number for the concrete and the exact location in the work at which each batch represented by test specimens is deposited.

E. Concrete Temperature

1. For site batched concrete, test hourly when air temperature is 40°F and below, and when 80°F and above; and each time a set of compressive test specimens is made. For ready-mix concrete, test every delivered truck.

F. Compressive Strength

1. ASTM C-39; for each set of compressive strength test specimens there shall be one test performed at three (3) days and another at seven (7) days after placing for information and two (2) tests at twenty-eight (28) days for acceptance. Two specimens shall be held in reserve. The acceptance test results shall be the average of the two strengths of the specimens at 28 days. If one specimen in the test manifests evidence of improper sampling, molding, transportation or testing, it shall be discarded, and the reserve specimen shall replace it. If two specimens in a test show any defects, the test result shall be the remaining cylinder strength. If more than two specimens show evidence of damage the test shall be discarded, and the concrete shall be tested as indicated in (G).

G. Reports

1. Test results shall be reported in writing to the CQA Manager, Owner and Contractor on the same day that tests are made. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, designate Contractor, name of concrete supplier and truck number (if applicable), name of concrete testing service, concrete type and class, location of concrete batch in the structure, design compressive strength at 28 days and the compressive breaking strength for all tests completed for a particular set of cylinders on the day that the reports are submitted.

H. Storage Facility

1. Contractor shall provide a stable, insulated storage facility equipped with thermostatically controlled heat for the storage of compression test cylinders for at least the first 24 hours after molding.

PART 8 - PLACING CONCRETE

8.1 PREPARATION BEFORE PLACING

A. Clean Equipment

1. Hardened concrete and foreign materials shall be removed from the inner surfaces of the conveying equipment.

B. Formwork

1. Formwork shall be completed and checked to be watertight and to the proper lines. Snow, ice, chips, dirt, and other extraneous materials shall be removed. Thoroughly wet the forms (except in freezing weather), or oil them; and remove all standing water.

C. Embedded Items

1. Castings, anchor bolts and other embedded items shall be positioned properly and shall be clean and free of oil or loose coatings of paint, rust or scale.

D. Inspection

1. Verification that reinforcement is placed properly with the required clearance and that all reinforcing steel is free of oil or other coatings that might impair bond with the concrete shall be completed before placing any concrete.

8.2 NOTIFICATION

- A. No concrete shall be placed until the CQA Manager, or his representative, has observed and accepted the forms and reinforcing steel in place. If the reinforcing steel is not placed in accordance with the Plans for Construction or accepted Shop Drawings, the CQA Manager will inform the Contractor prior to the placement of any concrete to allow the Contractor to resolve the issue. Under no circumstances will an attempt be made to correct errors by inserting additional unscheduled bars. No concrete shall be placed except in the

presence of the CQA Manager or his representative, and Contractor shall give the CQA Manager at least 24 hours advance notice of concrete placements.

8.3 CONVEYING CONCRETE

A. General

1. Concrete shall be conveyed from mixer to forms as rapidly as practicable, by methods which will prevent segregation or loss of ingredients. There shall be no vertical drop greater than five (5) feet, except where suitable equipment is provided to prevent segregation and where specifically authorized by the CQA Manager.

B. Exposed Conveying

1. Belt conveyers, chutes or other similar equipment in which the concrete is delivered to the structure in a thin, continuously exposed flow, will not be permitted, except for very limited or isolated sections of the work and only then if accepted in writing by the CQA Manager. Such equipment shall be arranged to prevent objectionable segregation.

C. Maximum Concrete Drop

1. Where wall forms exceed five (5) feet in height, suitable measures, such as the use of elephant trunks or drop chutes, where practicable, or portholes, shall be provided in the forms to limit the vertical drop of the concrete to a maximum of five (5) feet. Openings shall be spaced around the perimeter of the formed area so that lateral flow of fresh concrete will be limited to three (3) feet. Drop chutes which may be provided to convey the concrete through wall ports shall have an outside pocket under each form opening to stop the concrete and allow it to flow easily over into the form without separation.

D. Pumping

1. Pumping or pneumatic conveying equipment, if used, shall be of suitable kind with adequate pumping capacity. Pneumatic placement shall be controlled so that segregation does not occur in the discharged concrete. Concrete shall not be conveyed through pipe made of aluminum or aluminum alloy.

8.4 PLACING CONCRETE

A. General

1. Concrete shall be placed within one and one-half (1 1/2) hours after the introduction of the water to the cement and aggregates. In hot weather or under conditions contributing to quick stiffening of the concrete, or where the temperature of the concrete is 85°F or above, the time shall be reduced to 45 minutes. The CQA Manager may allow a longer time, providing the setting time of the concrete is increased a corresponding amount by the addition of an approved set-retarding mixture. Concrete shall be deposited as closely as possible to its final position in the forms so that flow within the mass and consequent segregation is reduced to a minimum.

B. Use of Vibrators

1. Use of vibrators to transport concrete within the forms shall not be allowed. Vibrators may be used to aid in the consolidation of the concrete provided they are used under experienced supervision, and the forms designed to withstand their action. The duration of vibration shall be limited to that necessary to produce satisfactory consolidation without causing objectionable segregation. Vibration shall not be applied directly to the steel reinforcement or the forms or to concrete which has hardened to the degree that it becomes plastic when vibrated.
2. Contractor shall keep at least one spare vibrator on the job during all concrete placing operations.

C. Spading Concrete

1. When a vibrator is used, Contractor shall also spade the concrete along form surfaces a sufficient amount to prevent excessive size or numbers of air-void pockets in the concrete surface.

D. Prevention of Additional Water

1. Unless adequate protection is provided and approval is obtained, concrete shall not be placed in rain, sleet, or snow. Rainwater will not be allowed to increase the mixing water.

E. Placing Temperature

1. Concrete shall be mixed and placed only when the temperature is at least 40°F and rising, unless permission to place is obtained from the CQA Manager, in which event all material shall be heated and otherwise properly prepared so that batching and mixing can proceed in full accord with the provisions of these Technical Specifications. The method proposed for heating the materials and protecting the concrete shall be reviewed and accepted by the CQA Manager. Salt, chemicals, or other materials shall not be mixed with the concrete for the purpose of preventing freezing.
- F. Placement Not Permitted
1. Concrete placement will not be permitted when, in the opinion of the CQA Manager or representative, the sun, heat, wind, or humidity prevents proper placement and consolidation.
- G. Cold Weather
1. When the atmospheric temperature may be expected to drop below 40°F at the time concrete is delivered to the work site, during placement or any time during the curing period, the following provisions also shall apply:
 - a. The temperature of the concrete at the time of placing shall not be less than 50°F nor more than 90°F. The temperature of neither aggregates nor mixing water shall be more than 100°F just prior to mixing with the cement.
 - b. When the daily minimum temperature is less than 40°F, concrete structures shall be insulated or housed and heated after placement. The temperature of the concrete and air adjacent to the concrete shall be maintained at not less than 50°F nor more than 90°F for the duration of the curing period.
 - c. Methods of insulating, housing and heating the structure shall conform to "Recommended Practice for Cold Weather Concreting," ACI Standard 306.
 - d. When dry heat is used to protect concrete, means of maintaining an ambient humidity of at least 40 percent shall be provided unless the concrete has been coated with curing compound or is covered tightly with an approved impervious material.

H. Hot Weather

1. When climatic or other conditions are such that the temperature of the concrete may be expected to exceed 85°F at the time of delivery at the work site, during placement, or during the first 24 hours after placement, the following provisions also shall apply:
 - a. Contractor shall maintain the temperature of the concrete below 85°F during mixing, conveying, and placing. Methods used shall conform to "Recommended Practice for Hot Weather Concreting," ACI Standard 305.
 - b. The concrete shall be placed in the work immediately after mixing. Truck mixing shall be delayed until only time enough remains to accomplish it before the concrete is placed.
 - c. Exposed concrete surfaces which tend to dry or set too rapidly shall be continuously moistened by means of fog sprays or otherwise protected, as accepted by the CQA Manager, from drying during the time between placement and finishing, and after finishing.
 - d. Finishing of slabs and other exposed surfaces shall be started as soon as the condition of the concrete allows and shall be completed without delay.
 - e. Concrete surfaces exposed to the air shall be covered as soon as the concrete has hardened sufficiently and shall be kept continuously wet for at least the first 24 hours of the curing period and for the entire curing period unless curing compound is applied.
 - f. Formed surfaces shall be kept completely and continuously wet for the duration of curing period (prior to, during and after form removal) or until curing compound is applied.
 - g. If moist curing is discontinued before the end of the curing period, white pigmented curing compound shall be applied immediately.

8.5 CURING AND PROTECTING CONCRETE

A. General

1. All concrete shall be cured for a period of not less than seven (7) consecutive days by an accepted method, or combination of methods.

The curing process shall be done so as to prevent loss of moisture from the concrete for the duration of the entire curing period. Unhardened concrete shall be protected from heavy rains and flowing water. All concrete shall be adequately protected from damage.

8.6 FINISHING CONCRETE

- A. Following placement, consolidation, and screening, the surface should be darbied or bull-floated to eliminate high and low spots and embed large aggregates. After surface water has disappeared and concrete has hardened sufficiently, the surface shall be floated by power driven or hand floats. After leveling, Contractor shall refloat surface to a uniform granular texture. Care shall be exercised to prevent migration of excess water and fines to the surface during finishing operations. All trafficked surfaces shall receive a broom finish.

END OF SECTION 03 30 00

**TECHNICAL SPECIFICATIONS
DIVISION 03 – CONCRETE
SECTION 03 40 00 – PRECAST CONCRETE**

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This Technical Specification covers the work necessary to install precast concrete structures at the locations shown on the Plans for Construction.

1.2 RELATED DOCUMENTS

- A. The conditions and description of work shown in other sections of these Technical Specifications, Plans for Construction and the Quality Management Plan (QMP) apply to this Section.

1.3 SUMMARY

- A. Section Includes:
 - 1. Installation of precast concrete structures.
- B. Related Sections
 - 1. Section 31 20 00 – Earth Moving
 - 2. Section 03 30 00 – Cast-In-Place Concrete

1.4 SUBMITTALS

- A. Shop Drawings
 - 1. Contractor shall submit drawings of any proposed precast structures at least ten (10) working days prior to fabrication for review and acceptance by the CQA Manager.
- B. Certification
 - 1. Prior to installing an individual precast structure, or group of structures, the Contractor shall submit to the CQA Manager a certification and all

supporting data from the subcontractor indicating that the precast concrete elements conform to the Technical Specifications outlined herein.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Handle all pre-cast structures according to manufacturer's written rigging instructions.

PART 2 - PRODUCTS

2.1 PRECAST CONCRETE

- A. Precast structures shall conform to Section 831 of the Alabama Department of Transportation "Standard Specifications for Highway Construction".
- B. Precast concrete shall have a minimum 28-day compressive strength of 3,000 psi. Reinforcing steel shall conform to Grade 60 deformed rebar.

PART 3 - EXECUTION

3.1 EXCAVATION AND BACKFILL

- A. Excavation and backfill adjacent to precast concrete structures shall be in accordance with Section 31 20 00 – Earth Moving and Section 31 23 33 – Trenching and Backfilling of these Technical Specifications.
- B. Subgrade below precast structures shall be compacted with a smooth drum vibratory roller or plate compactor.
- C. Precast structures shall be bedded as shown on the Plans for Construction.

END OF SECTION 03 40 00

**TECHNICAL SPECIFICATIONS
DIVISION 31 – EARTHWORK
SECTION 31 10 00 – SITE CLEARING**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 DOCUMENTS

- A. This Section Includes the following:
 - 1. Protecting existing vegetation to remain.
 - 2. Removing existing trees, shrubs, groundcovers, plants, and grass.
 - 3. Clearing and grubbing.
 - 4. Stripping and stockpiling topsoil.
- B. Related Requirements:
 - 1. Section 01 50 00 – Temporary Facilities and Controls
 - 2. Section 01 35 13 – Site Preparation
 - 3. Section 02 41 00 – Demolition
 - 4. Section 31 20 00 – Earth Moving
 - 5. Section 31 25 00 – Erosion and Sedimentation Controls

1.3 MATERIAL OWNERSHIP

- A. The Owner shall have first refusal of cleared and salvaged materials.

- B. Except for materials indicated to remain on Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.4 SUBMITTALS

- A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
 - 1. Use sufficiently detailed photographs or videotape. See Part 3 Section 10.07 of these specifications for additional details on pre-construction documentation.
 - 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.

1.5 QUALITY ASSURANCE

- A. Pre-installation Conference: Conduct conference at Project site.
 - 1. Pre-installation Conference: Conduct conference at Project site.

1.6 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- B. Salvagable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- C. Utility Locator Service: Notify One Call utility locating service for area where Project is located before site clearing.

- D. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly flag trees and vegetation to remain or to be removed.
- C. Protect existing site improvements to remain from damage during construction.
- D. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENT CONTROL

- A. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to sediment and erosion control Plans and Specification Section 01 57 23.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- C. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

- A. General: Protect trees and plants remaining on-site according to local requirements.

- B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Engineer.

3.4 UTILITIES

- A. Contact One Call and utility providers marked on utility locate ticket(s).
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Engineer and Owner not less than three working days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Owner's written permission.
- C. Removal of Underground Utilities: Comply with requirement of utility owners.

3.5 CLEARING, GRUBBING, AND STRIPPING

- A. Limits of clearing and grubbing shall be all areas within the Contract limits, except as otherwise shown. See SWPPP plans for Construction Limits. Damage outside these limits caused by Contractor's operations shall be corrected at Contractor's expense.
- B. Within the limits of clearing, the areas below the natural ground surface shall be grubbed to a depth as specified on the drawings or designated by the Engineer. Objectionable material from the clearing and grubbing process shall be removed from the Site and wasted in approved safe locations.
- C. Stockpile topsoil in areas where it will not interfere with construction operations or existing facilities. Stockpiled topsoil shall be reasonably free of mineral subsoil, debris, and stones larger than two inches in diameter.
- D. Unless otherwise indicated, native trees larger than 3-inches in diameter at the base shall not be removed without the Engineer's approval. The removal of any trees, shrubs, fences, or other improvements outside of rights-of-way, if necessary for the Contractor's choice of means and

methods, shall be arranged with the owner of the property, and shall be removed and replaced, as part of the Work.

- E. Burning on-site is not permitted.
- F. In order to avoid additional removal or damage, existing trees and shrubs shall be trimmed as required. Trimmed or damaged trees shall be treated and repaired by persons with experience in this specialty that are approved by Engineer. Trees and shrubs intended to remain, that are damaged beyond repair or removed, shall be replaced by Contractor, at no additional cost to the Owner.

3.6 OVEREXCAVATION, REGRADING, AND BACKFILL UNDER FILL AREAS

- A. Any undesirable soil shall be removed to the level designated by the Engineer.

3.7 SITE IMPROVEMENTS

- A. Remove or protect existing above- and below-grade drainage improvements and instrumentation as indicated and as necessary to facilitate new construction.

3.8 DISPOSAL

- A. The Owner shall have first refusal of salvaged materials.
- B. Remove obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.
- C. All existing fill and native soils to be excavated during construction of this project will be salvaged by the Owner and stockpiled on site.

END OF SECTION 31 10 00

**TECHNICAL SPECIFICATIONS
DIVISION 31 – EARTHWORK
SECTION 31 20 00 – EARTH MOVING**

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This section specifies the requirements for furnishing all equipment, materials, labor, tools, and techniques for earthwork including, but not limited to, the following:
1. Dust Control
 2. Stripping and Stockpiling
 3. Excavation
 4. Fill
 5. Compaction
 6. Grading
 7. Soil Disposal
 8. Clean Up
- B. The conditions and description of work shown in other sections of these Specifications, Drawings, and the Quality Management Plan (QMP) apply to this Section.

1.2 SUMMARY

- A. Section Includes:
1. Conduct of the Work and execution for earth moving activities, including acceptable materials and performance specifications.
- B. Related Sections
1. Section 31 23 33 – Trenching and Backfilling

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2. Section 32 92 00 – Turf and Grasses.

C. References

1. ASTM D6913 – 17, Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
2. ASTM D7928 – 17, Standard Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis
3. ASTM D698 – 12e2, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³ (600 kN-m/m³))
4. ASTM D1073 – 16, Standard Specification for Fine Aggregate for Bituminous Paving Mixtures
5. ASTM D1140 – 17, Standard Test Methods for Amount of Material in Soils Finer than No. 200 (75- μ m) Sieve
6. ASTM D1557 – 12, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56 000 ft-lbf/ft³ (2 700 kN-m/m³))
7. ASTM D2216 – 19, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
8. ASTM D2487 – 17, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
9. ASTM D2940 / D2940M – 15, Standard Specification for Graded Aggregate Material For Bases or Subbases for Highways or Airports
10. ASTM D4318 – 17e1, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
11. ASTM D6938 – 17a, Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
12. ASTM C33 / C33M – 18, Standard Specification for Concrete Aggregates

13. ASTM C136 – 14, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
14. Alabama Department of Transportation (ALDOT) (2022). "Standard Specification for Highway Construction." 2022 Edition.
15. Occupational Safety and Health Administration (OSHA) "OSHA 29 CFR Part 1926.650".

1.3 DEFINITIONS

- A. Borrow Material Provider: Source(s) of materials to be used for materials shown in the plans. Source and adequacy to be determined by the CONTRACTOR and reviewed for approval by the Engineer.
- B. Unsuitable Materials:
 1. Fills: Topsoil; frozen materials; construction materials and materials subject to decomposition; clods of clay and stones larger than three (3) inches; organic material (including silts), which are unstable; and inorganic materials (including silts) too wet to be stable. Unsatisfactory soils also include satisfactory soils not maintained within specified limits of optimum moisture content at the time of compaction, as defined by ASTM D698 or ASTM D1557.
 2. Aggregates: Any materials not from an ALDOT approved borrow source.
- C. Borrow Sand: Soil material used in the construction of the toe berm. Materials used for Borrow Sand shall meet the requirements of Item 2.1.B of these specifications.
- D. ALDOT No. 89 Aggregate: Aggregate used in the construction of the toe berm. Material used for ALDOT No. 89 Aggregate shall meet the requirements of Item 2.1.B of these specifications
- E. ALDOT No. 4 Aggregate: Aggregate used in the construction of the toe berm. Material used for ALDOT No. 4 Aggregate shall meet the requirements of Item 2.1.B of these specifications
- F. Gabion Stone: Stone used in the construction of the toe berm. Material used for ALDOT Gabion Stone Aggregate shall meet the requirements of Item 2.1.B of these specifications

- G. ALDOT Class I Riprap: Riprap used in the construction of the toe berm. Material used for ALDOT Class I Riprap shall meet the requirements of Item 2.1.B of these specifications
- H. Unauthorized excavation: Removal of materials beyond indicated subgrade elevations or indicated lines and dimensions without written authorization by the CQA Manager. No payment will be made for unauthorized excavation or remedial work required to correct unauthorized excavation.
- I. Authorized additional excavation: Removal of additional material authorized by the CQA Manager based on the determination that unsuitable bearing materials are encountered at required subgrade elevations. Removal of unsuitable material and its replacement as requested will be paid on basis of conditions of the Contract relative to changes in work.
- J. Subgrade: The undisturbed earth or compacted soil layer immediately below the fill embankments, compacted fill layers, granular sub-base, concrete structures, drainage fill, or topsoil materials.
- K. Borrow: Materials approved by the CQA Manager that are imported from off-site or obtained from on-site borrow pits for use.
- L. Utilities: On-site underground pipes, conduits, ducts, and cables, underground services associated with buildings, above-ground suspended utility lines, and associated poles and support appurtenances. This term includes pipe materials installed for this project.
- M. Debris: Debris includes all materials located within the designated work area not covered in the other definitions and shall include, but not be limited to, items like vehicles, equipment, appliances, building materials or remains thereof, tires, any solid or liquid chemicals or products stored or found in containers or spilled on the ground.
- N. Contaminated soils: Soil that contains contaminants as defined and determined by the OWNER or the OWNER's testing agency.

1.4 CLASSIFICATION OF EXCAVATION

- A. Unclassified Excavation: Without regard to the materials encountered, all excavation shall be unclassified, unless noted otherwise.

1.5 CONDUCT OF WORK

- A. Contractor shall maintain and protect embankment and subgrade in a satisfactory condition at all times until final acceptance of the Work.
- B. If equipment causes horizontal shears or slickensides, rutting, quaking, heaving, cracking or excessive deformation of the embankment, Contractor shall limit the type, load, or travel speed of the equipment to prevent such damage to the subgrade or embankment.
- C. Any accepted material which is lost in transit or rendered unsuitable after being placed in the embankment and before final acceptance of the Work, shall be replaced by the CONTRACTOR in a satisfactory manner.
- D. Contractor shall excavate and remove any material which the CQA Manager considers objectionable and shall dispose of such material in accordance with these Technical Specifications and refill the excavated areas as requested.
- E. Contractor shall be responsible for health and safety, including sloping or shoring of excavations as needed and in accordance with OSHA requirements. The CONTRACTOR shall submit shoring details to the CQA Manager a minimum of 2 weeks in advance of excavation.

1.6 SUBMITTALS

- A. Action Submittals: Submit the following:
 - 1. Granular Fill:
 - a. The CONTRACTOR shall furnish the CQA Manager with documentation showing that the sources for aggregate materials to be used on this project have been approved by ALDOT to be used on ALDOT construction projects and provide certification that each material is from an “approved source”, from prequalified suppliers.
 - b. The CONTRACTOR shall furnish the CQA Manager with a classification and gradation curve (ASTM C136) for each material type and certification that the aggregate materials meet these Specifications.

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- c. Certifications shall be supplied at least ten (10) working days prior to any material arriving at the job site.
 - d. Certifications shall be supplied for each source if multiple sources are used for the same material.
 2. Compaction Equipment: CONTRACTOR shall submit equipment specifications to the CQA Manager for review and acceptance prior to use.
 - B. Informational Submittals: Submit the following:
 1. Disposal: CONTRACTOR shall submit procedure and location for disposal of unused satisfactory material.
 2. Stockpile: CONTRACTOR shall submit to the CQA Manager, complete and detailed descriptions of a proposed stockpile plan for any material to be utilized for fill of any kind. This plan shall include, but not be limited to, the CONTRACTOR's proposed sequence of construction for all stockpiling; methods and types of equipment to be utilized for all stockpiling operations; quantity, type and final disposition of stockpiled materials; locations and drainage of proposed stockpiles; proposed disposition of all excavated materials, including items which will be disposed off-site.
 3. Fill Placement: A copy of all compaction test records and nuclear gage verification tests demonstrating compliance with these Specifications, as well as the records of corrective actions taken, signed by CONTRACTOR, shall be furnished to the CQA Manager within 48 hours of testing.
 4. Excavation: Prior to starting excavation operations, submit written plan to demonstrate compliance with OSHA 29 CFR Part 1926.650. Excavations for subgrade preparation shall not exceed plan dimensions without prior approval from the CQA Manager.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General

1. Provide borrow soil material when sufficient, satisfactory soil materials are not available from project excavations.

B. Granular Fill

1. Materials placed as Granular Fill shall consist of aggregates conforming to the size distributions designated on the Drawings and defined herein. Such coarse and fine aggregates shall conform to ALDOT Standard Specifications, unless defined otherwise, and shall be furnished from an approved source as noted in Paragraph 1.6.A.1 of this section.
2. Borrow Sand – Borrow sand shall consist of durable, non-carbonate, natural aggregate. Borrow sand shall be non-plastic and without gap grading (i.e., no sharp breaks in the gradation line curvature indicating absence of certain particle sizes). Borrow sand shall conform to the following specifications, calculated in accordance with USACE 2004 EM 1110-2-2300:
 - a. Maximum Particle Diameter: 4.75 mm
 - b. Maximum Percent Passing the No. 200 (0.075 mm) sieve: 5%
 - c. Minimum Particle Diameter where 85 Percent of Material is Finer: 0.68 mm
 - d. Minimum Particle Diameter where 15 Percent of Material is Finer: 0.26 mm
 - e. Maximum Particle Diameter where 15 Percent of Material is Finer: 0.40 mm
3. ALDOT No. 89 Coarse Aggregate – ALDOT No. 89 Coarse Aggregate shall consist of processed aggregates in accordance with ALDOT Item 801. Coarse Aggregate gradation shall meet the requirements of ALDOT Item 801.11 for particle sizes (reproduced in Table 1 below).

Table 1. ALDOT No. 89 Aggregate Gradation

Sieve Size	Coarse Envelope	Fine Envelope
	Percent Passing by weight	
3/4 inch	100	100
1/2 inch	100	100
3/8 inch	90	100
No. 4	20	55
No. 8	0	2.9

4. ALDOT No. 4 Coarse Aggregate – ALDOT No. 4 Coarse Aggregate shall consist of processed aggregates in accordance with ALDOT Item 801. Coarse Aggregate gradation shall meet the requirements of ALDOT Item 801.11 for particle sizes (reproduced in Table 2 below).

Table 2. ALDOT No. 4 Aggregate Gradation

Sieve Size	Coarse Envelope	Fine Envelope
	Percent Passing by weight	
2 inches	100	100
1.5 inches	90	100
1 inch	20	55
3/4 inch	0	15
3/8 inch	0	5

5. ALDOT Class I Riprap – ALDOT Class I Riprap shall consist of processed aggregates in accordance with ALDOT Item 610. Coarse Aggregate gradation shall meet the requirements of ALDOT Item 814 for particle sizes.
6. Gabion Stone – Gabion stone was selected for a surface protection option based on availability. The material shall be consistent with other gabion stone material used onsite for previous projects.

- C. Topsoil
 - 1. See Section 32 92 00 of these Specifications.
- D. Water
 - 1. Water used in controlling moisture shall be from a potable water source or approved by the Engineer.

PART 3 - EXECUTION

3.1 LINES AND GRADES

- A. An Alabama Registered Professional Land Surveyor shall establish lines and grades.
- B. Grades shall conform to elevations indicated on the plans within the tolerances shown on the General Notes sheet(s) of the Drawings. Generally, grades shall be established to provide a smooth surface, free from irregular surface changes. Grading shall comply with compaction requirements and grade cross sections, lines, and elevations indicated. Where spot grades are indicated the grade shall be established based on interpolation of the elevations between the spot grades while maintaining appropriate transition at structures and paving and uninterrupted drainage flow into inlets.
- C. Locations of existing and proposed elevations indicated on the plans, except spot elevations, are from a site survey that measured spot elevations and subsequently generated existing contours and spot elevations. Proposed spot elevations and contour lines have been developed utilizing the existing conditions survey and developed contour lines that may be approximate. CONTRACTOR is responsible for notifying the CQA Manager of any differences between existing elevations shown on the Drawings and those encountered on site by the Surveyor described above. Notify the CQA Manager of any differences between existing or constructed grades, as compared to those shown on the Drawings.
- D. After establishment of lines and grades, the CONTRACTOR shall be responsible for any additional cut and/or fill required to ensure that the site is graded to conform to elevations indicated on the Drawings.

3.2 DUST CONTROL

- A. Control objectionable dust caused by CONTRACTOR's operation of vehicles and equipment, clearing, and other actions. To minimize airborne dust, apply water or use other methods subject to acceptance of CQA Manager and approval of authorities having jurisdiction.
- B. CONTRACTOR shall obtain, pay for, and comply with permits required for earthmoving and dust-generating operations related to the Work, and develop and comply with provisions of dust control plan if required by local jurisdiction.
- C. Provide necessary labor, materials, equipment, and incidentals to apply sufficient dust suppressants, properly clean all track-out areas to driveways, roadways, and highways, and provide adequate physical stabilizations of soils to comply with earthmoving permits and accepted dust control plan.
- D. Do not cause or allow dust-generating operations, earthmoving operations, use of property, or other operations that result in fugitive dust emissions that exceed limits prescribed by authorities having jurisdiction.
- E. CONTRACTOR is responsible for paying fines and civil penalties incurred by the OWNER due to the CONTRACTOR's actions or violations of earthmoving permits and dust control plan.

3.3 CLEARING AND GRUBBING

- A. Clear areas of trees/brush within construction limits as shown on the Drawings. Work includes removal of trees, shrubs, debris, trash, and other obstructions. Remove and dispose of materials from the site in accordance with all applicable Federal, State and local regulations.
- B. DO NOT REMOVE ROOT WADS OR ANY OTHER BELOW GRADE MATERIAL WITH OUT APPROVAL OF THE ENGINEER.
- C. Areas that will be excavated or fill to be placed shall be cleared of trees, brush, projecting roots, weeds, logs and other protruding obstructions. Additional locations of trees and shrubs may be removed from other areas with written approval from the CQA Manager.
- D. Stripping and Grubbing:
 - 1. Areas that will be excavated or where fill is to be placed shall be stripped to a depth not exceeding 6 inches, unless otherwise

specified in the Drawings, to remove grass, roots and other organic material.

2. All cleared and grubbed material shall be removed from the site and disposed of at an approved disposal site and in accordance with applicable local landfill regulations.
- E. Barricade and protect from damage, existing trees and shrubs that are not removed in the construction area. Immediately repair damage to existing trees and shrubs by trimming, cleaning, and painting damaged areas, including roots, in accordance with standard industry horticultural practice for the geographic area and plant species.

3.4 STOCKPILING

- A. All stockpiles shall be prepared in accordance with Occupational Safety and Health Administration (OSHA) standards. Stability of stockpile slopes is the responsibility of the CONTRACTOR.
- B. Stockpiles shall be graded to maintain positive drainage at all times. The side slopes shall have maximum 3H:1V slope. The top of the stockpile shall have a minimum two percent slope.
- C. All topsoil or fill materials the CONTRACTOR excavates and are suitable for incorporation into the Work shall be stockpiled and subsequently used. Topsoil and fill material shall be stockpiled separately without intermixing. Stockpiling shall be designated with a temporary sign or stake indicating the type of fill material at the stockpile location. Suitable materials that exceed the amount needed for the Work shall be considered surplus materials and shall be properly disposed offsite or in an area approved by the CQA Manager.

3.5 EXCAVATION

- A. General
 1. Provide excavation protection system(s) in accordance with Laws and Regulations to prevent injury to persons and property, including Underground Facilities. CONTRACTOR shall comply with OSHA 29 CFR Part 1926.650 and shall retain the services of a qualified engineer to design any excavation protection systems.

2. Open excavations are restricted to the maximum depths and maximum lengths noted on the Drawings. Excavations for subgrade preparation shall not exceed plan dimensions without prior approval from the CQA Manager.
- B. Excavation Drainage:
1. Operate pumping equipment and/or provide other materials, means and equipment as required to keep excavation free of water and subgrade dry, firm, and undisturbed until acceptance of permanent work has been received from CQA Manager.
 2. Groundwater flowing toward or into excavations shall be controlled to prevent sloughing of excavation slopes and walls, boils, uplift, and heave in the excavation and to eliminate interference with orderly progress of construction.
 3. If unstable conditions develop in an excavation, immediately fill the excavation and notify the CQA Manager.
- C. Construction in the Tailwater Channels
1. Before placing sand in the channels, remove organic debris with bucket (1-foot depth max).
 2. Place sand immediately following removal of organics.
- D. Subgrade Protection
1. Protect subgrades from excessive drying, softening, undermining, washout, or damage by rain or water accumulation. Reroute surface water runoff from excavated areas and do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
 2. When subgrade for foundations has been disturbed by water, remove disturbed material to firm undisturbed material after water is brought under control. Replace disturbed subgrade in trenches with material accepted by the CQA Manager. Excavation of disturbed soil shall not be greater than one (1) foot without acceptance of the CQA Manager.

- E. Blasting
 - 1. Blasting will not be allowed on the project.
- F. Site Earthwork
 - 1. Earth excavation includes excavating obstructions visible on the ground surface; underground structures, buried drainage tiles, and other items indicated to be removed; together with soil, boulders, and other materials not classified as rock or unauthorized excavation. Excavation shall be accomplished as required by the Drawings and Specifications. Excavate to indicated elevations and dimensions within a tolerance indicated on the Drawings. Extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, complying with OSHA requirements, and for observations. Remove subgrade materials that are determined by CQA Manager as unsuitable and replace with acceptable material.

3.6 FILL

- A. General
 - 1. Do not fill or backfill until all debris, water, unsatisfactory soil materials, obstructions, and deleterious materials have been removed from the excavation. For fill and backfill, use excavated materials and borrow meeting the criteria specified herein, as applicable. Do not use unsuitable excavated materials.
- B. Subgrade
 - 1. Equipment to be used for subgrade improvements shall be approved by the CQA Manager.
 - 2. Notify the CQA Manager a minimum of three (3) working days prior to subgrade improvements. Such work shall be performed in the presence of the CQA Manager or representative.
 - 3. All depressions or holes below the natural ground surface, whether caused by grubbing or otherwise, shall be filled with suitable material and compacted to the grade shown on Drawings before placement of fill is started.

4. The subgrade shall be assessed as follows or as otherwise requested by the CQA Manager.
 - a. Subgrade shall be uniform prior to the placement of the material.
 - b. Prepare subgrade until it will support three passes of a dozer with less than six inches of observed pumping. Prepare spillway or other concrete structure subgrade until it will support three passes of a dozer with less than 2 inches of observed pumping.
 - c. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by the CQA Manager or his representative, and replace with filter material approved by the CQA Manager.

C. Protection

1. The contractor shall suspend fill placement operations at any time when, in the opinion of the ENGINEER, work cannot be performed in accordance with the specifications on account of rain, flooding, cold weather, or other unsatisfactory conditions.
2. Immediately prior to any suspension in fill operations, the CONTRACTOR shall slope the fill surface as specified and roll with rubber tired equipment or smooth cylindrical roller so as to leave the surface area in a smooth, uniform condition for positive drainage.
3. The CONTRACTOR shall:
 - a. Protect compacted fill and subgrade surfaces that have been prepared for receiving fill from freezing by using a temporary layer of soil or insulating materials, or other means authorized by the ENGINEER.
 - b. Remove protection only when ready to place fill, and authorization is provided by the ENGINEER.
4. If directed by the ENGINEER, the CONTRACTOR shall condition, rework, and re-compact or remove and replace any portion of the fill or subgrade that has suffered a reduction in quality due to drying, frost, rain, or any other reason to the specified requirements before placing succeeding layers.

5. The CONTRACTOR shall:
 - a. Re-route construction traffic away from or stabilize areas to the satisfaction of the ENGINEER where the fill or ground surfaces begin to rut or exhibit instability.
 - b. Not allow construction traffic, including foot traffic, to cross Borrow Sand or ALDOT No. 89 Coarse Aggregate unless adequate measures, acceptable to the ENGINEER, are in place to prevent contamination, degradation, and over compaction of these materials.

D. Placement and Spreading

1. No material shall be placed in any section of the embankment until the subgrade for that section has been observed and accepted by the CQA Manager or representative. Contractor shall keep the subgrade free from water or unacceptable materials after fill operations have started, except for the areas within the tailwater channel. The surface shall be stripped and free of organic, vegetative and deleterious materials. Contractor shall keep the subgrade free from unacceptable materials after the fill operations have started.
2. The original ground surface, subgrade, or the surface of any embankment layer in place, shall not be in frozen condition, and shall be free from quantities of snow, ice and mud when a subsequent layer is placed thereon. No snow, ice or frozen materials shall be incorporated in the fill.
3. No material placed by dumping in piles or windrows shall be incorporated in a layer in that position, but shall be moved and spread by blading or similar approved methods.
4. Place and spread coarse aggregate materials in horizontal layers not exceeding twelve (12) inches in loose thickness.
5. Place and spread fine aggregate materials (sands) in horizontal layers not exceeding six (6) inches in loose thickness.
6. In trenches or other areas where the backfill material will be compacted by hand-operated tampers or portable compaction

equipment, place and spread materials in horizontal layers not exceeding four (4) inches in loose thickness. Place backfill and fill materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.

7. No fill or other load shall be placed on, or against cast-in-place concrete structures until a minimum of 14 calendar days has elapsed after the concrete is placed, or until the compressive strength tests demonstrate a minimum of 100% of the required 28 day compressive strength.

E. Compaction

1. After each layer of fill has been placed and spread, it shall be compacted by the accepted tamping equipment over the entire surface of the layer by the specified, minimum number of passes.
2. Mechanically compact each lift, by not less than three (3) complete coverages of the compactor. One coverage is defined as the conditions reached when all portions of the fill lift have been subjected to the direct contact of compactor's compacting surface. Compaction of fill materials by inundation with water is unacceptable.
3. Compact with accepted equipment (hand or mechanized) well suited to soil being compacted. Specifications for equipment to be used for compaction shall be submitted to the CQA Manager for acceptance prior to use. Adjustments in the compactive effort shall be made on observations of the compaction efforts.
4. Compaction equipment shall conform to the following general requirements and shall be used as prescribed in this Technical Specification.
 - a. Granular Fill shall be compacted with vibratory rollers. Vibratory rollers shall be equipped with a smooth steel compaction drum and shall be operated at a frequency of vibration during compaction operations between 1,110 and 1,500 vibrations per minute (vpm). Vibratory rollers may be either towed or self-propelled and shall have an unsprung drum weight that is a minimum of 60 percent of the rollers' static weight. Towed rollers shall have at least 90 percent of their

weight transmitted to the ground through the compaction drum when the roller is standing in a level position hitched to the towing vehicle. Rollers shall have a minimum static weight of 20,000 pounds, a minimum dynamic force of 40,000 pounds when operating at 1,400 vpm, and an applied force not less than 9,000 pounds per foot of compaction drum length. The level of amplitude and vibration frequency during compaction shall be maintained uniformly throughout the embankment zone within which it is operating. Rollers shall be operated at a speed of no more than 1.5 miles per hour. The equipment Manufacturer shall provide sufficient data, drawings, and computations to verify that the proposed equipment meets the above specifications. The character and efficiency of this equipment shall be subject to the acceptance of the CQA Manager.

- b. In pipe and structure backfill areas where it is impracticable to use a roller or tractor, compaction of material shall be performed by the use of accepted manual tampers. To the extent practical, "walk-behind" manual tamping foot rollers shall be used. Manual tamping foot rollers shall be designed with a minimum operating weight of 2,750 pounds, shall exert a minimum centrifugal force of 8,000 pounds, and shall have a means of self-cleaning the tamping feet.
 - c. Where not accessible to other equipment, manually operated rammers may be used only if accepted by the CQA Manager. Manually operated rammers shall have a minimum operating weight of 135 pounds and shall exert at least 3,000 pounds per blow.
5. Conformance with this Technical Specification shall be verified by observation of the specified minimum number of passes with approved compaction equipment. Observations shall be recorded by the CQA Manager or his representative.
 6. Any compacted material not meeting the Technical Specifications shall be replaced or reworked in accordance with these Technical Specifications or as requested by the CQA Manager and at no cost to the Owner.

7. Repair, at Contractor's expense, observed or measured settlement. Make repairs and replacements as required within 30 days after being so advised by CQA Manager.
- F. Borrow Material
1. Borrow material shall be selected to meet the requirements and conditions of the particular fill material for which it is to be used.
 2. Borrow material and all soils shall conform to the material requirements stated in Section 2.1 of this Technical Specification.

3.7 GRADING

- A. General
1. Uniformly grade the areas within the limits of construction, including adjacent transition areas. Smooth the finished surface within specified tolerance. Provide uniform levels or slopes between points where elevations are indicated, or between such points and existing finished grades. Provide a smooth transition between abrupt changes in slope.
 2. Final subgrade in a condition acceptable to CQA Manager at least one day in advance of operations. Maintain final subgrade in a smooth and compacted condition until succeeding operation has been accomplished.

3.8 DISPOSAL OF UNSUITABLE AND EXCESS EXCAVATED MATERIAL

- A. Disposal: Remove surplus soil, waste material, trash, and debris, and legally dispose of it offsite or onsite in an area approved by the CQA Manager and OWNER.
- B. Remove from site and dispose of any excess excavated materials after all fill and backfill operations have been completed, or place onsite in an area approved by the CQA Manager and OWNER.

3.9 FINISHING

- A. Final grade surfaces shall be finished to a relatively smooth and compact surface.

- B. In areas disturbed by construction activity, prepare the surface, fertilize, seed, and mulch in accordance with Section 32 92 00 of the Specifications.

3.10 FIELD QUALITY CONTROL

- A. Quality control material testing, and construction observations shall be performed by the CONTRACTOR in accordance with the Project Quality Management Plan and the CONTRACTOR's Construction Quality Control Plan. At a minimum, the following quality control measures shall be observed, verified and reported.
 - 1. Materials used for backfill shall meet the requirements of Section 2.1 of this specification and all applicable sections of the ALDOT Testing Manual.
 - 2. Subgrade preparation shall meet the requirements of Section 3.6.B of this Specification.
 - 3. Placement and compaction of fill materials shall meet the requirements of Section 3.6 of this Specification, and the applicable sections of the ALDOT Standard Specification for Highway Construction.
- B. Testing Agencies
 - 1. The Owner shall retain a Geotechnical Testing Agency for all Quality Assurance material and field testing, as specified in this Section. The Contractor shall be responsible for coordination with the Owner's Testing Agency.

3.11 CLEAN UP

- A. Upon completion of earthwork operations, clean areas within contract limits, remove tools, and equipment. Remove all debris, rubbish, and excess material from site. Provide a site that is clear, clean, and free of debris.

END OF SECTION 31 20 00

**TECHNICAL SPECIFICATIONS
DIVISION 31 – EARTHWORK
SECTION 31 23 33 – TRENCHING AND BACKFILLING**

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes

1. The Contractor shall provide all labor, materials, and equipment as necessary to complete excavating, backfilling, and compacting of trenches as required for all related appurtenances in accordance with the Contract Documents.
2. The Work includes the following for the installation of subgrade pipe:
 - a. Removal of surface materials and structures
 - b. Excavation from the trench of all materials of whatever kind encountered so that pipes and structures can be laid to alignment and depth required.
 - c. Support of the adjoining ground or structures, if necessary.
 - d. Stockpiling and disposal of excess excavated material
 - e. Control of surface and subsurface water in trenches
 - f. Removal and replacement of unsuitable material
 - g. Preparation of subgrade
 - h. Backfilling of trenches
 - i. Restoration of surfaces

1.2 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Reference Specifications

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1. Section 01 33 00 – Submittal Procedures
 2. Section 02 41 00 – Demolition
 3. Section 31 20 00 – Earth Moving
 4. Section 33 41 00 – Subdrainage
 5. Section 32 92 00 – Lawns and Grasses
- B. Reference Standards
1. ASTM C33 – Standard Specification for Fine Aggregate Sand
 2. ASTM C94 – Standard Specification for Ready-Mixed Concrete
 3. ASTM C136 – Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
 4. ASTM C150 – Standard Specification for Portland Cement
 5. ASTM C260 – Standard Specification for Air-Entraining Admixtures for Concrete
 6. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete
 7. ASTM C618 – Standard Specification for Coal Fly Ash or Calcined Natural Pozzolan for use in Concrete
 8. ASTM D422 – Standard Test Method for Particle-Size Analysis of Soils
 9. ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort
 10. ASTM D1556 – Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
 11. ASTM D1557 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³))
 12. ASTM D2419 – Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate

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13. ASTM D2434 – Standard Test Method for Permeability of Granular Soils (Constant Head)
 14. ASTM D2487 – Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
 15. ASTM D2922 – Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
 16. ASTM D3017 – Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
 17. ASTM D4253 – Test Method for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table
 18. ASTM D4254 – Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density
 19. ASTM D4318 – Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils

1.3 REGULATIONS

- A. Abide by State and Federal regulations and abide by the laws and regulations with regard to stream crossings and public safety.

1.4 PERMITS

- A. Contractor shall obtain all permits required for this section of the Work, with the exception of those specifically listed as being obtained by the Owner and abide by the stipulations of the permits.
- B. Abide by the stipulation of permits obtained by the Owner.

1.5 QUALITY CONTROL AND QUALITY ASSURANCE TESTING

- A. Testing Agencies
 1. The Owner shall retain a Geotechnical Testing Agency for all Quality Assurance material and field testing, as specified in this Section. The Contractor shall be responsible for coordination with the Owner's Testing Agency.

1.6 SUBMITTALS

- A. Submittals to be provided, in accordance with the requirements of Section 01 33 00 – Submittal Procedures.
- B. Product Data
 - 1. Soils and Aggregates
 - a. Submit to the Engineer a list of sources of materials including sand, gravel, borrow materials, and concrete aggregates.
 - b. Provide samples, test results, sieve analyses and reports for preliminary approval of materials.
 - c. Preliminary approval of material does not constitute general acceptance. Acceptance depends upon satisfactory field test results and performance in place.
 - 2. Other Products and Materials
 - a. Contractor shall submit product data for all other products and materials, identified in this Section, to be furnished by the Contractor.
- C. Samples
 - 1. The CONTRACTOR shall submit to the OWNER's Testing Agency a sample of each material used.
 - 2. Representative samples, weighing not less than 100 lbs, shall be provided for each material.
 - 3. The ENGINEER may direct the CONTRACTOR to supply samples for testing of any material used in the Work.

PART 2 - PRODUCTS

2.1 BACKFILL MATERIAL REQUIREMENTS

A. General

1. Satisfactory backfill soils shall be materials as shown on the Drawings and defined in Section 31 20 00 – Earth Moving of the Specifications, and be free of toxic contaminants.
2. Unsatisfactory backfill soils include MH, OL, OH, and PT according to ASTM D 2487, or a combination of these groups. Unsatisfactory backfill soils also include satisfactory soils not maintained within moisture and compaction requirements as defined in Section 31 20 00 – Earth Moving of the Specifications.

2.2 MATERIALS TESTING

A. Unified Soil Classification System

1. References in this Section to soil classification types and standards shall have the meanings and definitions indicated in ASTM D2487.
2. The Contractor shall be bound by applicable provisions of ASTM D2487 in the interpretation of soil classifications.

B. Particle size analysis of soils and aggregates will be performed using ASTM D 6913 - Standard Test Method for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis.

C. Atterberg Limits testing of soil will be performed using ASTM D 4318 - Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

D. Determination of sand equivalent value will be performed using ASTM D 2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.

E. Moisture-density curves for each type of material from each source of material to be compacted to a specified density shall be performed in accordance with ASTM D698 or D1557, as directed in the Drawings or Specifications.

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- F. Sieve analysis for all granular material shall be performed in accordance with ASTM C136.

2.3 PIPE BEDDING AND BACKFILL MATERIALS

- A. Pipe Bedding Materials
 - 1. Storm sewer shall be bedded with washed, crushed stone, slag or gravel meeting the gradation requirements of ALDOT specifications for size No. 89 aggregate. Bedding material shall be placed in accordance with Part 3 of this Section.
- B. Gravels
 - 1. Gravel backfill shall be placed where shown or specified below and around structures, roads, walks, driveways, etc.
 - 2. Gravel backfill shall meet the requirements for Type II materials specified under ALDOT specifications.
- C. Imported Fill
 - 1. If imported materials are required by this Section or are required in order to meet the quantity requirements of the Work, the Contractor shall provide the imported materials as part of the Work.
 - 2. Imported backfill material for trenches shall be free from organic material or any perishable or objectionable material that would prevent proper consolidation.
 - 3. Imported backfill material shall be approved by the Engineer prior to being brought to the site.

PART 3 - EXECUTION

3.1 GENERAL

- A. Except when specifically provided to the contrary, excavation shall include the removal of materials, including obstructions, that would interfere with the proper execution and completion of the Work.
- B. The removal of such materials shall conform to the lines and grades indicated or ordered.
- C. Areas as shown on the Drawings shall be stripped of vegetation and debris and such material shall be removed from the Site prior to performing any excavation or placing any fill.
- D. The Contractor shall furnish, place, and maintain supports and shoring that may be required for the sides of excavations.
- E. Excavations shall be sloped or otherwise supported in a safe manner in accordance with applicable safety requirements and regulations.
- F. The Contractor shall provide quantity surveys where so required to verify quantities for Unit Price Contracts.
- G. Surveys shall be performed prior to beginning Work and upon completion by a surveyor licensed in the State of Alabama.

3.2 PREPARATION

- A. Clear the surface of the ground or road within the working area.
- B. Dispose of refuse in a manner satisfactory to the Engineer.
- C. Windrow reusable fill and keep it separate from the remainder of the excavated material so that it can be replaced when the backfilling operation has been completed.
- D. Strip topsoil and stockpile adjacent to, but separate from, gravel and sub soil.
- E. Width of stripping shall be sufficient to permit excavation, pipelaying, backfilling and replacement of topsoil without mixing of materials and without loss of topsoil.

3.3 DISPOSAL

- A. All materials on site whether stockpiled, stored or excavated are the property of the Owner, and the Owner reserves the right to keep any part or all of the material.
- B. The Contractor shall dispose of debris, waste, unsuitable material, rock or excess material in accordance with these Specifications, and all applicable Federal, State/Provincial, and local regulations.
- C. The Contractor shall dispose of all materials on site in areas approved by the Engineer or at sites to be obtained by the Contractor.

3.4 EXCAVATION

- A. Depth: Excavate the trench to a depth sufficient to lay the pipe as shown on the Drawings. If any part of the trench bottom is excavated in error below the specified grade, correct with approved materials compacted as specified under Pipe Bedding, at the Contractor's expense.
- B. Width: Excavate trench width at the bottom such that the pipe can be laid and jointed as specified and backfill placed and compacted as specified. Trench width dimensions are specified under installation of pipe. Increase trench widths to allow placing of timber supports, sheeting and bracing, but do not exceed the maximum trench width shown on drawings. Make trench walls vertical to 12 inches above the top of the pipe and maintain widths above this level within limits shown on the drawings or in accordance with safety regulations. Pipe design is dependent upon the type of bedding specified and the class of backfilling in the pipe zone, as well as the width of the trench. If the Contractor uses trenching equipment or trenching methods that result in a wider trench than specified under the installation of pipe, then corrective work shall be performed as required by the Engineer, at the Contractor's expense. The corrective work may take the form of either or both of the following:
 - 1. Supply and installation of a higher class of bedding and backfilling in the pipe zone
 - 2. Supply and installation of a stronger class pipe
- C. Length: Excavate trenches only as far in advance of pipelaying as safety and traffic conditions permit and as far as the Engineer shall allow.

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- D. Excavate so that the pipe can be laid to the line and grade as shown on drawings, or as established by the Engineer.
 - E. Stockpile material excavated alongside the trench in authorized working areas in a manner that will not endanger the Work, hinder pedestrian or vehicle traffic, block surface drainage or obstruct access to other utilities. Where excavated material cannot be piled along the trench in compliance with the above restrictions, remove it from the site and stockpile at an acceptable location for return to the trench for backfilling. Do not stockpile excavated material over existing pipelines or rights-of-way.
 - F. Dispose of waste or surplus material as per Article 3.03.
 - G. The expense of removing water from trenches, regardless of origin, is the responsibility of the Contractor.
 - H. Common Excavation
 - 1. Excavation of materials, with the exception of surface gravel, pavement or rock, is classified as common excavation.
 - 2. In root wad, ledge rock, boulders or large stones, contact the Engineer before over excavating.
 - I. Unsuitable Material
 - 1. Unsuitable material is material in the trench at subgrade that is unstable, or which contains ashes, cinders, organic material, and large pieces of inorganic material, or is otherwise unsuitable, and which in the judgment of the Engineer, should be removed.
 - 2. Excavate and remove unsuitable material to a width and depth ordered by the Engineer. Backfill the subgrade with an approved material compacted in 6-inch lifts to provide a continuous bearing for pipes. Replacement material shall be approved by the Engineer.
 - 3. Dispose of unsuitable material as per Article 3.03.
 - 4. Payment will be made for removal and replacement of unsuitable material if the Work is ordered by the Engineer.

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5. Material that becomes unstable or unsuitable through the Contractor's failure to divert surface water or control ground water in the trench shall be excavated and removed as waste material and replaced with approved material at the expense of the Contractor.

J. Temporary Protective Structures

1. Temporary protective structures, bracing, shoring and sheeting are the responsibility of the Contractor and shall be designed by a Professional Engineer licensed in the State of Alabama.
2. Observe safety regulations with regard to protection of the Work, property, structures adjacent to the Work and maintenance of the trench widths.
3. Increase trench widths as necessary to allow placing of supports, sheeting and bracing, but do not exceed the maximum trench widths shown on the drawings, or provide for corrective measures.
4. Where damage to adjacent structures will not result, remove temporary protective structures and backfill as specified for the pipe zone and the trench.
5. Leave temporary structures in place where damage to adjacent structure may result or if ordered by the Engineer.

3.5 PIPE BEDDING

- A. Pipe bedding shall be in accordance with the drawings and with the specifications for installation of the pipe.
- B. Do not proceed with placing pipe bedding until the Engineer has inspected the trench.

3.6 BACKFILLING IN THE PIPE ZONE

- A. The pipe zone is defined as that part of the trench from the bottom of the pipe bedding to 12 inches above the top of the pipe, or above the top of the highest pipe in a combined trench.
- B. Backfilling in the pipe zone shall be in accordance with the drawings and with the specifications for installation of the pipe.

3.7 TRENCH BACKFILL

- A. Trench backfill is defined as backfill above the pipe zone.
- B. Do not proceed with trench backfill until the Engineer has inspected and approved the bedding and backfill in the pipe zone.
- C. Place backfill in a dry trench.
- D. Place backfill by rolling down a slope in the trench or lower by machine. Prevent backfill from dropping vertically.
- E. Backfill as close as possible to pipe laying operations so that trenches are left open no longer than necessary.
- F. Plan the backfilling operation so that exposure of the backfill material to frost is kept to a minimum. Use no frozen chunks of soil as backfill.

3.8 CLEAN UP

- A. Clean up and dispose of all excess material, trash, rocks, boulders, and debris as work progresses as per Article 3.03.
- B. Restore all public and private roads, temporary access roads, stockpile and storage sites to a condition equal to that in which they were found.

3.9 RESTORATION

- A. Restore or replace all fences, poles or other property and surface structures damaged or removed during the course of The Work to a condition equal to that before The Work began, furnishing all labor and materials at the Contractor's expense.
- B. Restore trench surfaces to their original level and conditions after backfilling or as detailed on the drawings.
- C. Restore other working areas that were affected by the construction operation by re-grading, re-gravelling and pavement repair as necessary to restore these surfaces to their original level and condition.

3.10 TRENCH SETTLEMENT DURING GUARANTEE PERIOD

- A. During the guarantee period, the Contractor shall replace materials and rectify all failures that occur as a result of settlement of trench backfill or collapse of trench walls.
- B. Trenches in which backfill settles shall be refilled with the specified backfill material. Paved surfaces that are adjacent to trenches or on trench backfill, which fail during this period, shall be replaced or repaired in an approved manner.
- C. Replacement of materials and rectification of failures that occur as a result of settlement of trench backfill or collapse of trench walls, is entirely the responsibility of the Contractor and such repair work shall be done at the Contractor's expense.

END OF SECTION 31 23 33

**TECHNICAL SPECIFICATIONS
DIVISION 31 – EARTHWORK
SECTION 31 25 00 – EROSION AND SEDIMENTATION CONTROLS**

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This Technical Specification covers provisions for erosion control and stabilization. All construction activities shall be conducted in accordance with applicable environmental requirements. Install sediment and erosion control measures prior to disturbance where applicable.

1.2 RELATED DOCUMENTS

- A. The conditions and description of work shown in other sections of these Technical Specifications, Plans for Construction, Storm Water Pollution Prevention Plan (SWPPP), if applicable, and the Work Plan apply to this Section.

1.3 SUMMARY

- A. Section Includes:
1. Installation of Best Management Practices.
 2. Inspection and maintenance of Best Management Practices.
- B. Related Sections
1. Section 01 57 23 – Stormwater Pollution Prevention
 2. Section 31 20 00 – Earth Moving
 3. Section 32 92 00 – Lawn and Grasses

1.4 INFORMATION SUBMITTALS

- A. Erosion and Sedimentation Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Refer to the Plans for Construction and SWPPP, if applicable, the Sediment and Erosion Control Details and Sediment and Erosion Control features noted for products and materials to be employed in erosion control and stabilization efforts. This Section provides material requirements for silt fence and stabilization materials.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHASE OPERATIONS

- A. Contractor shall evaluate the progress of work on the project and plan to minimize the surface area disturbed at any one time. Sediment and Erosion control measures shall be in place to the extent practicable prior to commencement of excavation activities.
- B. Perform excavation or grading in stages to route sediment laden runoff through installed sediment control measures. Excavate material during dry weather when possible. Establish final grade in a given area as quickly as possible.
- C. Contractor shall control fugitive dust emissions. Control dust generation by covering disturbed areas by achieving final grade, installing the final cover and by wetting haul roads or applying accepted (by CQA Manager or Engineer) chemical soil binders, as needed.
- D. Contractor shall not discharge raw silt and sediment laden water from the site without providing for removal of soil particles.
- E. Inspect all best management practices after any rainfall event.
- F. Maintain all best management devices by removing accumulated silt, repairing or replacing damaged devices and by cleaning up any excess discharges or mud on roads.

3.2 SEDIMENT BARRIERS

- A. At a minimum, the Contractor shall install silt fences, and/or fiber rolls or other suitable measures, as shown on the Plans for Construction. Sediment barriers may also be required at additional locations such as along the contour above benches, at the toe of the slopes and along ditches. Site and weather conditions may dictate the need for the additional placements.
- B. Silt Fences
 - 1. Contractor shall install silt fences in the locations shown on the SWPPP and on the Plans for Construction. Silt fence may also be required at other locations based upon field conditions.
 - 2. Silt fences shall conform to the requirements given in Section 665 "Temporary Soil Erosion and Sediment Control" of the ALDOT Standard Specifications. Install below proposed disturbed areas in accordance with the plans and details and as needed in other areas. Embed silt fence as shown on the Plans for Construction. Turn ends of silt fence slightly toward the uphill side to help reduce runoff around the fence ends.
- C. Sediment Tubes/Fiber Rolls
 - 1. Sediment tubes shall be installed in accordance with ALDOT Standard Drawing.
 - 2. Acceptable sediment tubes shall be listed on the ALDOT Qualified Products List.
 - 3. Fiber rolls and other commercial products made from coconut fiber, rice straw, plastic, wood shavings, or other material can also be used as sediment barriers along ditches.
 - 4. Follow manufacturers' installation instructions and ensure that sediment filter spacing on slopes is correct. Make sure runoff does not bypass barriers, coconut rolls, or other barriers underneath or around the ends.
- D. Inspect silt fences, curb inlet protection and other installed manmade barriers twice weekly and after any rain event and in accordance with the SWPPP, if applicable. Inspections shall be performed at least 72 hours

apart. Remove sediment before it reaches six (6) inches in depth. Reinstall sections of fence which have washed out underneath the fence. Replace broken, torn or worn fences or fiber rolls. Rebuild or replace damaged rock check dams. Make repairs in accordance with the SWPPP, if applicable, as soon as practicable and no later than three (3) days following discovery.

E. Turbidity Curtain

- a. At a minimum, the Contractor shall install turbidity curtains in the tailwater channels, just south of the toe berm construction area as shown on Drawing Sheet C-103 – Erosion Protection and Sediment Control (EPSC) Plan.
- b. The turbidity curtain shall meet details outlined on Drawing Sheet C-503 – Details (Detail 4).

3.3 SLOPE PROTECTION

- A. Contractor shall take measures as necessary to minimize sheet, rill and gully erosion prior to constructing the final cover and in areas outside the subgrade limits affected by this work. Slopes shall be stabilized immediately after grading with measures as described below.
 1. Divert Upland Runoff – use diversion berms as practicable to control flow and route around work areas.
 2. Tracking – Track a dozer up and down the slopes to create horizontal breaks which will slow the overland flow of water.
 3. Sediment Barriers – See Paragraph 3.2.
- B. Inspect slopes for erosion in accordance with the SWPPP, if applicable. Repair gullied areas and any upslope areas contributing large volumes of sediment. Install berms, fiber coils or other measures as needed. Remove sediment from sediment control devices as discussed in Section 3.2.
- C. Once an area achieves final grade, the area shall be revegetated as soon as practicable using long-term measures in accordance with Section 32 92 00 "Turf and Grasses" of these Technical Specifications. Avoid creating large areas with long slopes that have not been subject to revegetation efforts.

3.4 OTHER

- A. Inspect equipment and hydraulic oil systems at the beginning of each day. Repair or replace frayed or damaged lines or hoses before use in or near water and provide containment measures, if required.
- B. Make sure that waste materials, building materials, and supplies are properly tied down or contained so that wind and storm water runoff cannot carry the materials away. Fuel, lubricants, and hazardous waste products should be stored in an approved tank or other structure to avoid spills and runoff. Provide spill kits and containment material on-site, especially near fueling or equipment service areas. Maintain vehicles and equipment away from the site if possible. If maintenance must occur on-site, ensure that spills are cleaned up quickly.

END OF SECTION 31 25 00

**TECHNICAL SPECIFICATIONS
DIVISION 32 – EXTERIOR IMPROVEMENTS
SECTION 32 92 00 – LAWNS AND GRASSES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Plans and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. All references to ALDOT are to the Alabama Department of Transportation Standard Specifications for Road and Bridge Construction, current edition.

1.2 SUMMARY

- A. Section includes:
 - 1. Seeding.
 - 2. Sod.
 - 3. Erosion-control material(s).
- B. Related Sections:
 - 1. Section 31 10 00 – Site Clearing: For topsoil stripping and stockpiling.
 - 2. Section 31 20 00 – Earth Moving: For excavation, filling and backfilling, and rough grading.
 - 3. Section 31 25 00 – Erosion and Sediment Controls

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Manufactured Soil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.

- C. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.
- D. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill immediately beneath planting soil.
- E. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
- C. Product Certificates: For erosion control blanket from manufacturer.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful lawn establishment.
 - 1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress.
- B. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
- C. Topsoil Analysis: Furnish soil analysis by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; deleterious material; pH; and mineral and plant-nutrient content of topsoil.

1. Report suitability of topsoil for lawn growth. State-recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory topsoil.
- D. Do not perform seeding when wind exceeds 15 MPH, or when excessively wet or dry.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Seed: Deliver seed in original sealed, labeled, and undamaged containers.

1.7 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.

1.8 MAINTENANCE PERIOD

- A. Initial Lawn Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:
 1. Seeded Lawns: 90 days from Final Acceptance.
 - a. When initial maintenance period has not elapsed before end of planting season, or if lawn is not fully established, continue maintenance during next planting season.
 2. Sodded Lawns: 90 days from Final Acceptance.
 - a. When initial maintenance period has not elapsed before end of planting season, or if lawn is not fully established, continue maintenance during next planting season.

PART 2 - PRODUCTS

2.1 SEED

- A. Use specified seed products as stated on the Plans.

- B. If product not specified on the Plans, use the following:
 - 1. Grass Seed: Fresh, clean, dry, new-crop seed complying with ALDOT Section 860.
 - 2. Grass Seed Mix: Bermuda & Giant Bermuda (hulled).

2.2 SOD

- A. Use specified sod products as stated on the Plans.
- B. If product not specified on Landscape Plans, use the following:
 - 1. Rolls or slabs of field grown Bermuda grass in accordance with ALDOT Section 654.

2.3 TOPSOIL

- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth.
 - 1. Topsoil Source: Reuse surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
 - a. Supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from agricultural land, bogs or marshes.

2.4 FERTILIZER

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - 1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.

2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

2.5 MULCHES

- A. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic; free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.

2.6 EROSION CONTROL MATERIALS

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches long.
 1. Blanket durability: 12 months.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive lawns and grass for compliance with requirements and other conditions affecting performance.
- B. Areas to receive lawns and grass shall include the following:
 1. All disturbed areas not paved.
 2. All disturbed areas not specified for groundcover and plantings by landscape plan.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
 1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
 2. Protect grade stakes set by others until directed to remove them.

- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 LAWN PREPARATION

- A. Limit lawn subgrade preparation to areas to be planted.
- B. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Apply Insert type fertilizer directly to subgrade before loosening.
 - 2. Thoroughly blend planting soil mix off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil mix.
 - a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
- C. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future.
- D. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- E. Before planting, restore areas if eroded or otherwise disturbed after finish grading.

3.4 PREPARATION FOR EROSION CONTROL MATERIALS

- A. Prepare area as specified in "Lawn Preparation" Article herein.
- B. For erosion-control blanket or mesh, install from top of slope, working downward, and as recommended by material manufacturer for site conditions. Fasten as recommended by material manufacturer.

- C. Moisten prepared area before planting if surface is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

3.5 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
 - 1. Do not use wet seed or seed that is moldy or otherwise damaged.
 - 2. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate recommended by seed producer.
- C. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:6 with erosion-control blankets installed and stapled according to manufacturer's written instructions.

3.6 HYDROSEEDING

- A. Hydroseeding: Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
 - 1. Mix slurry with fiber-mulch manufacturer's recommended tackifier.
 - 2. Apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than 1500 lbs/acre dry weight, and seed component is deposited at not less than the specified seed-sowing rate.
- B. Protect hydro-seeded areas with slopes exceeding 1:6 with erosion-control blankets installed and stapled according to manufacturer's written instructions.

3.7 SOD

- A. Install rolls or slabs of field grown Bermuda grass sod in accordance with ALDOT Specification Section 654.

3.8 LAWN MAINTENANCE

- A. Maintain and establish lawn by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn. Provide materials and installation the same as those used in the original installation.
 - 1. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
- B. Watering: Provide and maintain temporary piping, hoses, and lawn-watering equipment to convey water from sources and to keep lawn uniformly moist to a depth of 4 inches.
 - 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 - 2. Water lawn with fine spray at a minimum rate of 1 inch per week unless rainfall precipitation is adequate.
- C. Mow lawn as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:
 - 1. Mow grass to a height of 1/2 inch or less.
- D. Lawn Postfertilization: Apply fertilizer after initial mowing and when grass is dry.
 - 1. Use fertilizer that will provide actual nitrogen of at least 1 lb/1000 sq. ft. to lawn area.

3.9 SATISFACTORY LAWNS

- A. Lawn installations shall meet the following criteria as determined by the Engineer.
 - 1. Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.
 - 2. Satisfactory Sodded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.
- B. Use specified materials to reestablish lawns that do not comply with requirements and continue maintenance until lawns are satisfactory.
 - 1. Lawns damaged by erosion or construction equipment during maintenance period shall be re-sodded to the satisfaction of the Architect.

3.10 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris, created by lawn work, from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after lawn is established.
- C. Remove nondegradable erosion-control measures after grass establishment period.

END OF SECTION 32 92 00

**TECHNICAL SPECIFICATIONS
DIVISION 33 – UTILITIES
SECTION 33 41 00 – SUBDRAINAGE**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. All references to ALDOT are to the Alabama Department of Transportation Standard Specifications for Road and Bridge Construction, current edition.

1.2 SUMMARY

- A. Section includes:
 - 1. Pipe and fittings.
 - 2. Drain basins.
 - 3. Underdrain systems.
 - 4. Cleanouts.

1.3 SUBMITTALS

- A. Product Data: For drain basins, pipe, and fittings.
- B. Cut sheets for site specific pre-cast drain basins to include:
 - 1. Structure Type & ID.
 - 2. Structure top elevation.
 - 3. Structure bottom elevation.
 - 4. Grate elevation.

- 5. Grate type.
- 6. Invert elevation(s).
- 7. Inlet/Outlet size(s).
- C. Field quality-control reports.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Do not store plastic drain basins, pipe, or fittings in direct sunlight.
- B. Protect pipe, pipe fittings, and seals from dirt and damage.

PART 2 - PRODUCTS

2.1 CONCRETE

- A. General: Cast-in-place concrete shall be provided in accordance with local specifications.
 - 1. Design Mixture: 4000 psi.

2.2 PIPING MATERIALS

- A. Refer to Article 3.1 – Piping Applications for applications of pipe, fitting, and joining materials.

2.3 PIPE AND FITTINGS

- A. Storm Drain Pipe (Pipe Conduit): Concrete or Plastic pipe with watertight fittings and connections required for Storm Drain Pipe.
- B. Available Products and Manufacturers: Provide products as listed, or pre-approved equal:
 - 1. Class III Reinforced Concrete Pipe (RCP) and comply with ASTM C76.
 - 2. ADS N12 as manufactured by Advanced Drainage Systems Inc.
 - 3. Nyloplast drain basins as manufactured by Advanced Drainage Systems Inc.

2.4 DRAIN BASINS

- A. Grates and frames shall be metal and painted black.
- B. Fabricated PVC drainage basins (Nyloplast) may be used in accordance with local specifications.

2.5 CLEANOUTS

- A. Metal Cleanouts:
 - 1. Description: ASME A112.36.2M, round, gray-iron housing with clamping device and round, secured, scoriated, gray-iron cover. Include gray-iron ferrule with inside caulk or spigot connection and countersunk, tapered-thread, brass closure plug.
 - 2. Top-Loading Classification(s): Medium Duty.
 - 3. Pipe Fitting and Riser to Cleanout: PVC Schedule 80 or SDR35 plastic pipe and fittings.
- B. Plastic Cleanouts:
 - 1. PVC cleanout with end cap may be used in accordance with local specifications.

2.6 SOIL MATERIALS

- A. General: Material for bedding and backfill shall be provided in accordance with State Department of Transportation Standard Specifications.

PART 3 - EXECUTION

3.1 PIPING APPLICATIONS

- A. General: Include watertight joints as required by ALDOT Standard Specifications for Storm Drain Pipe, unless otherwise indicated.
- B. Refer to Part 2 of this Section for detailed specifications for pipe and fitting products. Use pipe, fittings, and joining methods according to ALDOT Standard Specifications.

3.2 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to extent practical.
- B. General: Join and install pipe and fittings as required by the ALDOT Standard Specifications, unless otherwise indicated.
- C. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- D. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install anchors, gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.
- E. Contractor shall maintain adequate cover over installed pipe or install anchor system as per manufacturer's recommendations at no additional cost to the Owner.

3.3 CATCH BASIN AND MANHOLE INSTALLATION

- A. Construct drain basins and curb inlets to sizes and shapes indicated.
- B. All drain basins shall have weep holes to allow for subgrade drainage into basin. Weep holes to be covered with geotextile fabric.
- C. Contractor shall provide conveyance of surface run-off into drainage system at all times.
 - 1. Ponding at drain basins during construction is not permitted, unless required for SWPPP.
 - 2. Correction of damaged soils or constructed site features that are a result of the Contractor's failure to protect the site from temporary drainage conditions shall be performed at no additional cost to the Owner.

3. The method of soil correction will be determined by the Engineer.

3.4 UNDERDRAIN SYSTEMS

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underdrain system. Contractor shall field verify location and arrangement of piping and include all necessary fittings.
- B. General: Join and install pipe and fittings as required by the ALDOT Standard Specifications, unless otherwise indicated for Underdrain Systems, unless otherwise indicated.
- C. Reference Specification Section 31 20 00 – Earthwork for trenching and backfill requirements.

3.5 CLEANOUT INSTALLATION

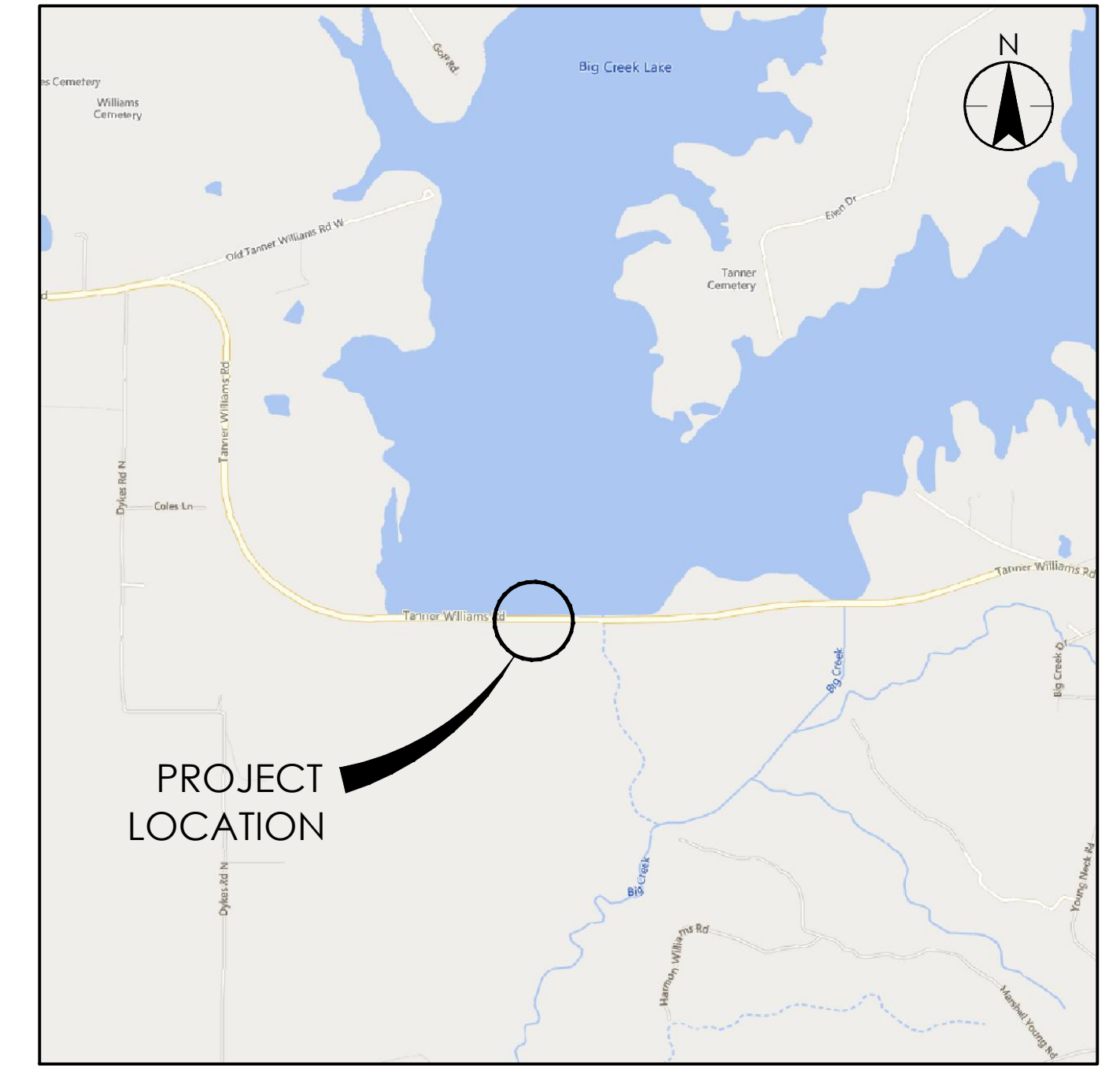
- A. Install cleanouts and riser extensions from pipes to cleanouts at grade. Use plastic pipe fittings at branches for cleanouts. Install piping so cleanouts open in direction of flow in pipe.
 1. Use Medium-Duty, top-loading classification cleanouts in all areas.

3.6 FIELD QUALITY CONTROL

- A. General: Provide quality control in accordance with ALDOT Standard Specifications.
- B. Clear interior of piping and structures of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed.
- C. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
- D. Maintain storm water pollution prevention measures around all drainage structures during entire construction of project. Remove any sedimentation in drainage structures immediately, but do not flush downstream system.

- E. Provide as-built elevations of pipe inverts at all drainage structures, inlets and outlets.

END OF SECTION 33 41 00



PROJECT LOCATION

VICINITY MAP
NOT TO SCALE

DRAWING INDEX			
SEQ. NO.	DRAWING NUMBER	DISCIPLINE	DRAWING TITLE
1	G-000	GENERAL	COVER SHEET/DRAWING INDEX
2	G-001	GENERAL	GENERAL NOTES
3	G-002	GENERAL	GENERAL NOTES
4	C-100	CIVIL	EXISTING SITE CONDITIONS AND BASELINE LAYOUT
5	C-101	CIVIL	DEMOLITION PLAN
6	C-102	CIVIL	GRADING AND DRAINAGE PLAN
7	C-103	CIVIL	EROSION PROTECTION AND SEDIMENT CONTROL (EPSC) PLAN
8	C-200	CIVIL	CROSS SECTION - STA. 19+00 AND STA. 20+00
9	C-201	CIVIL	CROSS SECTION - STA. 21+00 AND STA. 22+50
10	C-202	CIVIL	CROSS SECTION - STA. 24+50 AND STA. 25+95.40
11	C-203	CIVIL	CROSS SECTION - STA. 27+50 AND STA. 30+00
12	C-204	CIVIL	CROSS SECTION - STA. 34+25 AND STA. 36+00
13	C-205	CIVIL	CROSS SECTION - STA. 37+25 AND STA. 39+00
14	C-500	CIVIL	DETAILS
15	C-501	CIVIL	DETAILS
16	C-502	CIVIL	DETAILS
17	C-503	CIVIL	DETAILS



BIG CREEK LAKE DAM TOE BERM AND DRAINAGE IMPROVEMENTS Mobile, Alabama

2024.07.30

PROJECT NUMBER: 175578363

ISSUED FOR BID

NOT FOR CONSTRUCTION
This document is an interim document and not suitable for construction. As an interim document, it may contain data that is potentially inaccurate or incomplete and is not to be relied upon without the express written consent of the preparer.

GENERAL NOTES

DESCRIPTION OF WORK

- 1. THE WORK WILL BE PERFORMED ALONG THE DOWNSTREAM TOE AT THE MOBILE AREA WATER & SEWER SYSTEM (MAWSS) BIG CREEK LAKE DAM SITE. THE WORK INCLUDES ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO IMPROVE THE STABILITY AND DRAINAGE AS SHOWN IN THE CONSTRUCTION PLANS. THE WORK CONSISTS OF, BUT IS NOT LIMITED TO EXCAVATION, PIPE INSTALLATION, PLACEMENT OF BACKFILL MATERIAL, COMPACTION OF BACKFILL MATERIAL, AND WORKING WITH THE DISPOSAL OF MATERIAL.

DEFINITIONS

- 1. WHENEVER THE FOLLOWING TERMS ARE USED IN THESE PLANS FOR CONSTRUCTION, IT IS UNDERSTOOD THAT THEY REPRESENT THE FOLLOWING:
A. CONTRACTOR: ENTITY RESPONSIBLE FOR CONSTRUCTION.
B. ENGINEER / ENGINEER OF RECORD: STANTEC CONSULTING SERVICES INC. (STANTEC)
C. OWNER: MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
D. CONSTRUCTION MANAGER: REFERS TO AN INDIVIDUAL EMPLOYED BY MAWSS FOR COORDINATION OF CONSTRUCTION ACTIVITIES.
E. QUALITY MANAGEMENT PLAN (QMP): REFERS TO A DOCUMENT THAT PROVIDES GUIDANCE TO THE PROJECT TEAM AND ESTABLISHES ASSESSMENT, REPORTING, QUALITY CONTROL, QUALITY ASSURANCE, AND DOCUMENTATION PROCEDURES FOR THE PROJECT.
F. CONSTRUCTION QUALITY ASSURANCE (CQA) MANAGER: THE CQA MANAGER IS A REPRESENTATIVE OF THE ENGINEER OF RECORD AND IS RESPONSIBLE FOR EXECUTION OF THE CQA AND RELATED DOCUMENTATION AS OUTLINED IN THE QMP.
G. CONTRACTOR QUALITY CONTROL (CQC) PLAN: REFERS TO A DOCUMENT THAT ESTABLISHES MINIMUM QUALITY CONTROL REQUIREMENTS, TESTING FREQUENCY, AND QUALITY OVERSIGHT RESPONSIBILITY.

CONTRACTOR ACTIVITIES

- 1. THE CONTRACTOR SHALL ADHERE TO THESE PLANS FOR CONSTRUCTION, ALONG WITH OTHER REFERENCED SPECIFICATIONS, STANDARDS, AND APPLICABLE ENVIRONMENTAL AND SAFETY REGULATIONS DURING THE PROJECT ENTIRETY.
2. ACCESS TO THE SITE, STORAGE, AND STAGING AREAS, SHALL BE DETERMINED BY MAWSS. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACCESS AND STAGING AREAS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR'S MOBILIZATION SHALL INCLUDE, BUT IS NOT LIMITED TO, THE PREPARATION OF REQUIRED SUBMITTALS FOR ACCEPTANCE; TRANSPORTATION OF PERSONNEL, EQUIPMENT, AND SUPPLIES TO THE SITE; AND ERECTION OF PROJECT FENCES AND SIGNS. REQUIRED SUBMITTALS ARE LISTED HEREIN AND IN THE QMP, AND TECHNICAL SPECIFICATIONS. IF THE CONTRACTOR ELECTS TO DEMOBILIZE AND REMOBILIZE BEFORE COMPLETING THE WORK, IT SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL ACCESS ROADS, STAGING AREAS, AND STORAGE AREAS USED DURING CONSTRUCTION AND SHALL RESTORE SAID AREAS TO THEIR ORIGINAL CONDITION OR BETTER ONCE CONSTRUCTION IS COMPLETE UNLESS THE MAWSS CONSTRUCTION MANAGER PROVIDES WRITTEN PERMISSION TO THE CONTRACTOR TO LEAVE THE AREA "AS IS". UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL PERSONNEL AND EQUIPMENT FROM THE SITE, INCLUDING ANY TEMPORARY ITEMS INSTALLED BY THE CONTRACTOR DURING THE COURSE OF THEIR WORK. THE SITE SHALL BE LEFT IN A CONDITION ACCEPTABLE TO THE OWNER WITH ALL TRASH AND DEBRIS REMOVED.
5. THE WORK LIMITS ARE SHOWN ON THE CONSTRUCTION PLAN. THE CONTRACTOR SHALL NOT WORK OR USE AREAS OUTSIDE THE WORK LIMITS. AREAS WITHIN THE WORK LIMITS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND PROTECTION OF THE WORK AREA.
6. SITE WORK SHALL BE ACCOMPLISHED IN A MANNER THAT WILL NOT RESULT IN DAMAGE TO EXISTING STRUCTURES, UTILITIES, PAVEMENTS, SURVEY MONUMENTS, INSTRUMENTATION, TREES, OR LANDSCAPING THAT IS NOT DESIGNATED FOR REMOVAL. SITE USAGE, ACCESS IMPROVEMENTS, TEMPORARY DRAINAGE, AND EROSION CONTROL MEASURES SHALL BE SUBMITTED TO THE MAWSS CONSTRUCTION MANAGER FOR ACCEPTANCE. EXCAVATIONS ARE PERMITTED ONLY IN THE DESIGNATED AREAS.
7. MATERIALS DELIVERED FOR INCORPORATION INTO THE WORK SHALL BE TEMPORARILY STORED IN AREAS SELECTED BY THE CONTRACTOR AND APPROVED BY THE MAWSS CONSTRUCTION MANAGER. MATERIALS SHALL BE STORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
8. BLASTING IS NOT PERMITTED ON THE PROJECT SITE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HEALTH AND SAFETY OF ITS PERSONNEL AND SHALL MEET INDUSTRY STANDARD REQUIREMENTS. THE CONTRACTOR SHALL ADHERE TO THE OWNER'S REQUIREMENTS FOR SAFETY DURING CONSTRUCTION, UNLESS SUCH STANDARDS ARE SUPERCEDED BY REGULATORY REQUIREMENTS. ALL OPERATIONS SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.

- 10. THE CONTRACTOR SHALL COMMUNICATE DISCREPANCIES IN THE CONSTRUCTION DOCUMENTS TO THE CQA MANAGER AND MAWSS CONSTRUCTION MANAGER IMMEDIATELY UPON BECOMING AWARE. THE CONTRACTOR SHALL USE THE OWNER'S REQUEST FOR INFORMATION (RFI) FORM THAT IS CONTAINED IN THE QMP TO COMMUNICATE AND ESTABLISH WRITTEN DOCUMENTATION OF THE ISSUE AND ITS RESOLUTION.
11. CONSTRUCTION ACTIVITIES SHALL BE OBSERVED BY THE CQA MANAGER OR A DESIGNATED REPRESENTATIVE ON THE CQA TEAM. THE CONTRACTOR SHALL COORDINATE WITH THE ONSITE CQA REPRESENTATIVE AND INFORM THE REPRESENTATIVE OF THE CONTRACTOR'S SCHEDULED WORK SHIFTS TO ENSURE THAT CQA REPRESENTATION OCCURS AS REQUIRED. THE CQA TEAM WILL OBSERVE CONSTRUCTION ACTIVITIES AS REQUIRED.
12. ALL ESTABLISHED MAWSS BENCHMARKS OR OTHER MONUMENTS SHALL BE PRESERVED AND PROTECTED. ANY ESTABLISHED MARKER OR BENCHMARK THAT IS DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED BY SURVEYING SERVICES AT THE CONTRACTOR'S EXPENSE.
13. BASEMAPPING AND TOPOGRAPHIC MAPPING SHOWN IN THESE PLANS IS BASED UPON SURVEY DATA AND MEASUREMENTS PROVIDED BY MAWSS. THE SURVEY WAS PERFORMED IN THE FOLLOWING HORIZONTAL AND VERTICAL DATUM:
A. HORIZONTAL: ALABAMA STATE PLANE NAD83
B. VERTICAL: NGVD29
14. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN ON THESE PLANS AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
15. THE CONTRACTOR SHALL COORDINATE WITH THE MAWSS CONSTRUCTION MANAGER AND ALABAMA 811 OR 1-800-292-8525 TO LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION TO ENSURE THERE IS NO CONFLICT WITH THE WORK.
16. ONSITE UTILITIES AND UNDERGROUND FACILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE PROTECTED BY THE CONTRACTOR FROM DAMAGE BY THE CONTRACTOR'S OPERATIONS. IF DAMAGE OCCURS, THE CONTRACTOR SHALL COORDINATE REPAIRS WITH THE MAWSS CONSTRUCTION MANAGER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGED UTILITIES DURING CONSTRUCTION.
17. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING INSTRUMENTATION. CONTRACTOR IS TO LOCATE ALL INSTRUMENTATION PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE IMMEDIATE REPLACEMENT OF ANY INSTRUMENTATION DAMAGED DURING CONSTRUCTION. INSTRUMENTATION THAT CANNOT BE PROTECTED SHALL BE ABANDONED AND REPLACED AT MAWSS'S DIRECTION.
18. PROPOSED MODIFICATIONS TO DESIGN FEATURES AS SHOWN (OR DESCRIBED) IN THE ISSUED FOR CONSTRUCTION DESIGN DOCUMENTS SHALL BE APPROVED BY THE ENGINEER OF RECORD. TEMPORARY FEATURES IMPLEMENTED TO FACILITATE CONSTRUCTION SHALL BE DESCRIBED IN APPROVED PROJECT DOCUMENTS.
19. VEHICULAR ACCESS TO THE SITE SHALL BE DETERMINED BY MAWSS. NO CONSTRUCTION ACTIVITIES SHALL BE PERFORMED THAT CAUSE AN INTERFERENCE WITH THROUGH TRAFFIC DURING CONSTRUCTION UNLESS APPROVED BY THE OWNER. CONTRACTOR SHALL PROVIDE APPROVED SIGNAGE, BARRIERS, AND TRAFFIC SAFETY PERSONNEL RESPONSIBLE FOR DIRECTING CONSTRUCTION TRAFFIC AT ALL POINTS OF INGRESS AND EGRESS.
20. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF THE WORKSITE FROM UNAUTHORIZED PERSONNEL AT ALL TIMES DURING CONSTRUCTION.

CONFORMITY WITH PLANS/SPECIFICATIONS AND CONSTRUCTION TOLERANCES

- 1. ALL WORK PERFORMED AND MATERIALS SUPPLIED SHALL CONFORM TO THE LINES, GRADES, CROSS-SECTIONS, DIMENSIONS, AND MATERIAL REQUIREMENTS, AS SHOWN ON THE PLANS FOR CONSTRUCTION, AND AS INDICATED IN THE CQC PLAN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION SURVEYING AND FIELD MEASUREMENTS TO VERIFY CONFORMANCE WITH LINES, GRADES, CROSS-SECTIONS, DIMENSIONS, AND TOLERANCES SHOWN ON THESE PLANS FOR CONSTRUCTION. SURVEYING AND FIELD MEASUREMENTS SHALL BE PERFORMED AT APPROPRIATE TIMES THROUGHOUT CONSTRUCTION TO VERIFY PLAN CONFORMANCE AND TO PROVIDE THE NECESSARY DATA FOR PREPARATION OF RECORD DRAWINGS. THE CONTRACTOR SHALL PROVIDE SUCH AS-BUILT RECORDS OF THE CONSTRUCTED PROJECT TO THE ENGINEER UPON COMPLETION OF CONSTRUCTION. ITEMS TO BE VERIFIED AND/OR MEASURED BY SURVEYING SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
A. DIMENSIONS AND ELEVATIONS AT CHANGES (BREAKS) IN CONSTRUCTION MATERIALS.
B. ALIGNMENT DIMENSIONS AND ELEVATIONS OF PIPES AND STRUCTURES AT 20-FOOT INTERVALS.
C. OTHER ITEMS DEEMED NECESSARY BY THE CQA TEAM AND/OR CONTRACTOR TO VERIFY PLAN CONFORMANCE AND CONSTRUCTION TOLERANCES.

- 3. ACCEPTABLE CONSTRUCTION TOLERANCES FROM PLAN DIMENSIONS, ELEVATIONS, AND GRADES SHALL BE AS FOLLOWS:

- A. EXCAVATIONS AND FINAL GRADES FOR EARTH SURFACES AND ROCK BERMS:..... 1 INCH
B. AGGREGATE ROAD SURFACE..... ± 0.25 INCHES
C. OTHER STRUCTURES/UTILITIES:..... ±0.25 INCHES
HORIZONTAL:..... ±0.25 INCHES
VERTICAL:..... ±0.25 INCHES
D. PIPE BEDDING: SLOPE:..... +0.05%: -0.00%

EROSION PROTECTION AND SEDIMENT CONTROL (EPSC)

- 1. THE CONTRACTOR SHALL EXERCISE REASONABLE PRECAUTION AT ALL TIMES TO MINIMIZE SOIL EROSION AND PREVENT WATER POLLUTION BY TRANSPORTATION OF SEDIMENT OFFSITE. THE EROSION PROTECTION AND SEDIMENT CONTROL (EPSC) MEASURES SHOWN IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE CONSIDERED THE MINIMUM. SUPPLEMENTAL MEASURES SHALL BE PROVIDED BY THE CONTRACTOR AS FIELD AND WEATHER CONDITIONS DICTATE OR AS DIRECTED BY THE OWNER. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED AND INSPECTED CONSISTENT WITH ALDOT REQUIREMENTS.
2. SITE GRADING AND TEMPORARY DRAINAGE DITCHES SHALL BE MAINTAINED AS NEEDED SO POSITIVE DRAINAGE IS PROVIDED DURING CONSTRUCTION. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.
3. PRIOR TO BEGINNING CLEARING, GRUBBING, AND TOPSOIL STRIPPING ACTIVITIES, THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES, AS DIRECTED BY MAWSS.
4. THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS OF THE SWPPP AND INSPECT THE EROSION CONTROL MEASURES PER MAWSS REQUIREMENTS, INCLUDING AT LEAST TWICE PER CALENDAR WEEK, AT LEAST 72 HOURS APART, AND WITHIN 24 HOURS AFTER RAINFALL EVENTS GREATER THAN 0.5 INCHES IN A 24-HOUR PERIOD.
5. EROSION CONTROL MEASURES SHALL BE MAINTAINED DURING ANY CONSTRUCTION AND THEREAFTER UNTIL ALL DISTURBED AREAS ARE PAVED, CONCRETED, COVERED BY STONE, OR STABILIZED WITH A UNIFORM PERENNIAL VEGETATIVE COVER. REPAIRS SHALL BE MADE WITHIN SEVEN (7) DAYS AFTER A DEFICIENCY IS IDENTIFIED.
6. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE REMOVED AS DIRECTED BY THE OWNER OR CQA FIELD REPRESENTATIVE.

DRAIN PIPE

- 1. CARE SHOULD BE EXERCISED BY CONTRACTOR IN OPERATIONS SUCH AS, BUT NOT LIMITED TO, PLACING OF PIPE, JOINING, BEDDING, AND PLACEMENT OF BACKFILL. CONTRACTOR SHALL TAKE CARE TO PREVENT DAMAGE DURING TRANSPORTATION, UNLOADING, PLACEMENT, OR COMPACTION OF BACKFILL.
2. PIPE SHALL BE LAID TRUE TO THE LINES AND GRADES. PIPE NOT INSTALLED IN TRUE ALIGNMENT OR WITH JOINT SETTLEMENT OR DISPLACEMENT AFTER PLACEMENT SHALL BE REMOVED AND REPLACED.
3. PRIOR TO INSTALLATION OF THE PIPE, CONTRACTOR SHALL VISUALLY INSPECT AND CLEAN MUD, DEBRIS, AND/OR SEDIMENT FROM THE PIPE.

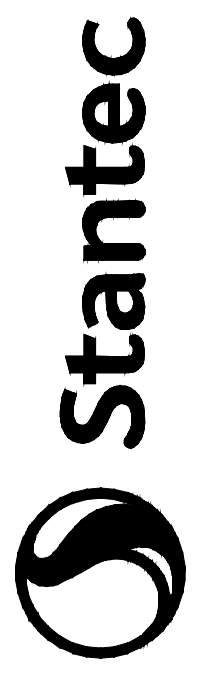
EMERGENCY ACTIONS

- 1. DURING EXCAVATION ACTIVITIES, BACKFILL MATERIALS SHALL BE READILY AVAILABLE FOR EMERGENCY BACKFILLING AS LISTED IN THE MAWSS DAM EMERGENCY ACTION PLAN PROVIDED BY MAWSS.

SUBMITTALS

- 1. SUBMITTALS SHALL BE PROVIDED TO SHOW CONFORMANCE TO THESE SPECIFICATIONS AND THE PLANS FOR CONSTRUCTION. SUBMITTALS SHALL BE PROVIDED TO THE MAWSS CONSTRUCTION MANAGER AND CQA MANAGER FOR REVIEW AT LEAST 10 WORKING DAYS PRIOR TO THE INSTALLATION OF MATERIALS, UNLESS NOTED OTHERWISE.

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Consultant

Table with columns for Date, Issued, App'd, and By. Row 1: 2024.07.02, YYY-MM-DD, Issued, ECR/BD.

Table with columns for Date, Issued, App'd, and By. Row 1: 2024.07.02, YYY-MM-DD, Issued, ECR/BD.

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project: MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
BIG CREEK LAKE DAM TOE BERM AND DRAINAGE IMPROVEMENTS
Mobile County, Alabama

Project No.: 175578363

File Name: G-001_G002_78363C_101_GNTS

Scale: NO SCALE

Rev: BFS ATR SMK 2024.07.02

Title: GENERAL NOTES

Revision:0 Sheet: 2 of 17

Drawing No.

G-001

REQUIRED SUBMITTALS AND MATERIALS REQUIREMENTS INCLUDE:

- STAGING AND STOCKPILE LOCATIONS - PROVIDE DRAWING SHOWING PROPOSED LOCATIONS FOR STAGING EQUIPMENT, STOCKPILING MATERIALS, EQUIPMENT MAINTENANCE, LAYDOWN AREAS, OFFICES, PARKING AREAS AND ROUTES, ETC. FOR ACCEPTANCE BY THE OWNER.
- ACCESS PLAN - DOCUMENT WHICH DESCRIBES THE SITE ACCESS FOR DELIVERY OF MATERIALS, AND EXECUTION OF THE WORK, AS WELL AS THE REMOVAL OF EXCESS MATERIALS, FOR ACCEPTANCE BY THE OWNER.
- EXCAVATION AND BACKFILL PLAN - DOCUMENT WHICH DESCRIBES HOW THE MATERIALS WILL BE EXCAVATED WITHOUT ADVERSELY AFFECTING THE STABILITY OF THE DAM SLOPE. THIS DOCUMENT SHALL DESCRIBE MEANS AND METHODS OF EXCAVATION. DEVIATIONS FROM THIS PLAN SHALL BE REFERRED TO THE OWNER AND ENGINEER FOR ACCEPTANCE.
- SAND - MATERIAL REQUIREMENTS ARE PROVIDED IN THE TECHNICAL SPECIFICATIONS.
- AGGREGATES - MATERIAL REQUIREMENTS ARE PROVIDED IN THE TECHNICAL SPECIFICATIONS.
- HDPE PIPE - MATERIAL REQUIREMENTS ARE PROVIDED IN THE TECHNICAL SPECIFICATIONS
- AS-BUILT DRAWINGS IN AUTOCAD AND PDF FORMAT INCLUDING SURVEY OF COMPLETED DRAINAGE PIPE INSTALLATION, LIMITS OF DRAINAGE DITCH, AND ANY DEVIATIONS FROM THAT SHOWN IN THESE PLANS FOR CONSTRUCTION. DRAINAGE PIPE POINTS SHALL BE SURVEYED AT POINTS NO GREATER THAN 50 FEET LINEARLY. ALL RECORD DATA SHALL BE SURVEYED WITH NORTHINGS, EASTINGS AND ELEVATIONS IN THE SAME DATUMS AS THE PLANS FOR CONSTRUCTION.
- THE CQA TEAM WILL PERFORM VISUAL OBSERVATIONS OF MATERIALS ARRIVING ONSITE TO CHECK THAT THEY MATCH THE APPROVED SUBMITTALS. FIELD CONFORMANCE TESTING OF MATERIALS DELIVERED TO THE SITE IS NOT REQUIRED UNLESS REQUESTED BY THE CQA MANAGER.

EXECUTION OF WORK

EXCAVATION

- THE CONTRACTOR SHALL SUBMIT AN EXCAVATION AND BACKFILL PLAN, WHICH MUST ADDRESS EXCAVATION SHORING AND BRACING, TO THE OWNER AND THE ENGINEER FOR ACCEPTANCE.
- IN ALL CASES, THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE STABILITY OF ANY EXCAVATION, PROVIDING FOR THE SAFETY OF ALL WORK CREWS NEAR OR IN OPEN EXCAVATIONS, AND COMPLYING WITH REQUIREMENTS OF APPLICABLE GOVERNING AUTHORITIES.

EARTHWORK

- TOPSOIL SHALL BE STRIPPED UP TO 6-INCHES IN DEPTH WITHIN THE WORKING AREA PRIOR TO PLACEMENT OF FILL MATERIALS. TOPSOIL SHALL BE STOCKPILED FOR SITE RECLAMATION.
- THE CONTRACTOR SHALL WORK IN A MANNER THAT MINIMIZES DISTURBANCE TO THE SURROUNDING AREA AND SHALL BE RESPONSIBLE FOR MAKING REPAIRS AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER. PRIOR TO CONSTRUCTION ACTIVITIES, IT IS RECOMMENDED THAT THE CONTRACTOR AND OWNER (OR REPRESENTATIVE) WALK THE CONSTRUCTION LIMITS TO DOCUMENT OBSERVATIONS/CONCLUSIONS AND REACH A COMMON UNDERSTANDING WITH REGARD TO MINIMIZING DISTURBANCE.
- THE CONTRACTOR SHALL WORK IN DISCRETE SEGMENTS ALONG THE TOE OF SLOPE AND SHALL NOT LEAVE OPEN UNSUPPORTED EXCAVATED AREAS OVERNIGHT. THE CONTRACTOR SHALL OBSERVE WEATHER FORECASTS AND BE PREPARED TO BACKFILL EXCAVATIONS PRIOR TO RAINFALL EVENTS.
- STOCKPILE SOILS OR AGGREGATES INTENDED FOR INCORPORATION INTO THE PROJECT AS DIRECTED BY THE OWNER. LOCATIONS AND SIZE OF TEMPORARY STOCKPILES SHALL BE APPROVED PRIOR TO MATERIAL PLACEMENT. STOCKPILES SHALL BE GRADED TO MAINTAIN POSITIVE DRAINAGE AT ALL TIMES. MATERIALS SHALL BE SEGREGATED. THE CONTRACTOR SHALL COVER MATERIALS TO PREVENT WINDBLOWN DUST.
- REMOVE WASTE MATERIALS, INCLUDING TRASH, DEBRIS, AND OTHER MAN-MADE WASTES AND LEGALLY DISPOSE OF THEM OFF PLANT PROPERTY.

BEDDING MATERIAL

- REMOVE LOOSE OR SLOUGHED MATERIAL, DEBRIS, AND TRASH FROM THE BOTTOM OF THE EXCAVATION TO FORM A SUITABLE BEARING SURFACE. WHERE THE BOTTOM IS UNSUITABLE, THE CONTRACTOR SHALL EXCAVATE LOOSE MATERIAL AND REPLACE WITH SUITABLE MATERIAL TO A DEPTH SPECIFIED BY THE ENGINEER. DO NOT DISTURB THE BOTTOM OF COMPLETED EXCAVATIONS.

DRAINAGE PIPE INSTALLATION

- THE LAYING OF PIPE SHALL BEGIN AT THE LOWEST POINT AND PROCEED UPSTREAM WITH THE BELL OR GROOVE ENDS POINTING UP-STREAM. PRIOR TO MAKING PIPE JOINTS, ALL JOINT SURFACES SHALL BE CLEAN AND DRY AND FREE FROM GRAVEL OR OTHER EXTRANEIOUS MATERIALS. ALL NECESSARY LUBRICANTS OR ADHESIVES SHALL BE USED AS RECOMMENDED BY THE PIPE MANUFACTURER. SUITABLE MEANS SHALL BE USED TO FORCE THE SPIGOT OR TONGUE END OF THE PIPE THE PROPER DISTANCE INTO THE BELL OR GROOVE END WITHOUT DAMAGE TO THE PIPE AND ITS JOINTING MATERIALS AND WITHOUT DISTURBING PREVIOUSLY LAID PIPE SECTIONS. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS SOLIDLY AND UNIFORMLY CRADLED OR ENCASED IN ACCORDANCE WITH THESE SPECIFICATIONS.
- EACH SECTION OF PIPE SHALL BE CHECKED FOR VERTICAL AND HORIZONTAL ALIGNMENT IMMEDIATELY AFTER BEING LAID. ALL ADJUSTMENTS TO LINE AND GRADE MUST BE MADE BY SCRAPING AWAY OR FILLING IN UNDER THE BARREL OF THE PIPE AND NOT BY WEDGING OR BLOCKING UP ANY PORTION OF THE PIPE OR STRIKING THE PIPE IN AN EFFORT TO DRIVE IT DOWN.
- AS THE WORK PROGRESSES, THE INTERIOR OF THE PIPE SHALL BE PROTECTED FROM AND CLEANED OF ALL DIRT, CEMENT, EXTRUDED JOINT MATERIALS, DEBRIS, AND OTHER EXTRANEIOUS MATERIAL. WHEREVER PIPE LAYING IS STOPPED FOR ANY SIGNIFICANT LENGTH OF TIME, SUCH AS AT THE END OF A WORKDAY, THE UNFINISHED END SHALL BE PROTECTED FROM DISPLACEMENT, FLOTATION, CAVE-IN, AND IN-WASH OF SOIL OR DEBRIS. A SUITABLE TEMPORARY TIGHT-FITTING PLUG, STOPPER OR BULKHEAD SHALL BE PLACED IN THE EXPOSED BELL OR GROOVE END OF THE PIPE. THE UPSTREAM END OF TOE DRAIN PIPE SHALL BE CAPPED AS SHOWN ON THE PLANS FOR CONSTRUCTION.

PIPE AND DITCH BACKFILL

- BACKFILL MATERIALS SHALL NOT BE DROPPED FROM HEIGHTS GREATER THAN 1 FOOT. SPREAD THE BACKFILL MATERIAL EVENLY AND COMPACT IN LIFTS AS SPECIFIED.

BACKFILL COMPACTION

- PLACE AND COMPACT BACKFILL MATERIALS IN A MANNER THAT AVOIDS DAMAGE TO THE DRAINAGE PIPE.
- NO COMPACTION SHALL BE PERFORMED WITHIN 12 INCHES OF THE PIPE CROWN. ONLY VIBRATORY PLATE OR EQUIVALENT COMPACTION EQUIPMENT MAY BE USED WITHIN 4 VERTICAL FEET ABOVE THE PIPE CROWN. ABOVE THIS LEVEL COMPACTION EQUIPMENT SHALL NOT EXCEED A GROSS WEIGHT OF 5 TONS. LARGER EQUIPMENT MAY NOT BE USED WITHOUT THE APPROVAL OF THE ENGINEER.

TURF AND GRASSES

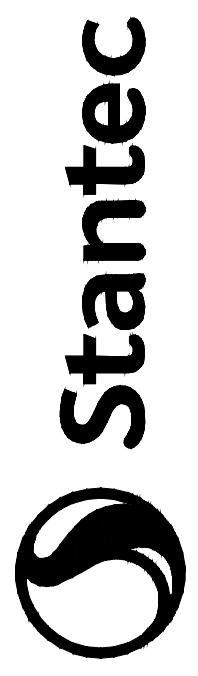
- IF EXISTING VEGETATED AREAS WITHIN THE LIMITS OF CONSTRUCTION ARE DISTURBED DURING THE COURSE OF THE WORK, THE CONTRACTOR SHALL REVEGETATE THEM, UNLESS THEY ARE SHOWN ON THESE PLANS TO BE STABILIZED WITH AGGREGATE.
- DELIVERY OF BULK FERTILIZERS AND SOIL AMENDMENTS SHALL INCLUDE APPROPRIATE CERTIFICATES AND SHALL NOT BE DUMPED OR STORED NEAR BODIES OF WATER, STRUCTURES, UTILITIES, OR ROADWAYS OR ON EXISTING TURF AREAS.
- PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING TO BE PERFORMED WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. APPLY PRODUCTS DURING FAVORABLE WEATHER CONDITIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. DO NOT PLANT WHEN THE GROUND IS FROZEN, SNOW-COVERED, OR MUDDY OR WHEN AIR TEMPERATURE EXCEEDS 90 DEGREES FAHRENHEIT.
- SEEDS SHALL BE SOWN WITH APPROVED MECHANICAL POWER-DRAWN DRILLS OR SEEDERS, HAND CYCLONE SEEDERS, OR WITH HYDROSEEDING EQUIPMENT. RATES SPECIFIED HEREIN SHALL BE MAINTAINED IN A MANNER THAT WILL GUARANTEE UNIFORM COVERAGE. SEEDING OPERATIONS SHALL NOT BE PERFORMED WHEN DROUGHT, HIGH WINDS, AND EXCESSIVE MOISTURE OR OTHER FACTORS MAY DETER SATISFACTORY RESULTS.
- MULCH SHALL CONSIST OF WHEAT STRAW, OR RYE STRAW AND SHALL NOT BE MOLDY, CAKED OR OTHERWISE LOW QUALITY. THE USE OF MULCH THAT CONTAINS NOXIOUS WEEDS WILL NOT BE PERMITTED. MULCH MATERIALS SHALL BE SPREAD UNIFORMLY OVER ALL SEEDED AREAS. THE MULCH SHALL BE APPLIED UNIFORMLY OVER ALL SEEDED AREAS OF LESS THAN 33% SLOPE AT THE RATE OF TWO (2) TONS PER ACRE IMMEDIATELY FOLLOWING SEEDING. SEED MIXTURE TO BE DETERMINED BY MAWSS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THE SEEDED AREAS AS NECESSARY UNTIL SATISFACTORY TURF IS ESTABLISHED. THE CONTRACTOR SHALL CONTINUE WATERING PLANTED AREAS AS NECESSARY THROUGHOUT THE MAINTENANCE PERIOD OF 120 DAYS. THE MAINTENANCE PERIOD SHALL BEGIN FOLLOWING COMPLETION OF SEEDING AND/OR SODDING OF ALL DISTURBED AREAS.
- SATISFACTORY TURF CONSISTS OF A HEALTHY, WELL-ROOTED, EVEN COLORED, VIABLE TURF THAT HAS BEEN ESTABLISHED, FREE OF OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES. A MINIMUM OF 80 PERCENT UNIFORM GROWTH OVER THE ENTIRE PLANTED AREA SHALL BE OBSERVED. THE QUALITY AND ACCEPTABILITY OF THE TURF SHALL BE DETERMINED BY THE CONSTRUCTION MANAGER.

ABBREVIATIONS

- ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
- BMP - BEST MANAGEMENT PRACTICES
- CTR - CENTER OR CENTERS
- CQA - CONSTRUCTION QUALITY ASSURANCE
- CQC - CONSTRUCTION QUALITY CONTROL
- DND - DO NOT DISTURB
- ELEV. - ELEVATION
- EOP - EDGE OF PAVEMENT
- EPSC - EROSION PREVENTION & SEDIMENT CONTROL
- HDPE - HIGH DENSITY POLYETHYLENE
- LP - LIGHT POLE
- NAD83 - NORTH AMERICAN DATUM OF 1983
- NGVD29 - NATIONAL GEODETIC VERTICAL DATUM OF 1929
- OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
- OHE - OVERHEAD ELECTRIC
- QMP - QUALITY MANAGEMENT PLAN
- RCP - REINFORCED CONCRETE PIPE
- RFI - REQUEST FOR INFORMATION
- SPP - STANDARD PROGRAMS AND PROCESSES
- SWPPP - STORMWATER POLLUTION PREVENTION PLAN
- TBR - TO BE REMOVED
- TBR&R - TO BE REMOVED AND RELOCATED
- WSE - WATER SURFACE ELEVATION
- AASHTO - AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION

MAWSS BIG CREEK LAKE DAM TOE BERM AND DRAINAGE IMPROVEMENTS PROJECT (ESTIMATED QUANTITIES)		
Item Description	Unit	Quantity
Erosion Control		
Silt Fence	LF	3200
Straw bales	LF	20
Turbidity Curtains 10ft depth x 80ft length	EA	2
Construction Entrance Aggregate	CY	50
Construction Entrance Geotextile	SY	300
Site Clearing and Demolition		
Topsail stripping/stockpile	CY	500
Clearing and Grubbing wooded area	AC	0.5
Excavate access road	CY	1500
Excavate existing terracotta piping	CY	160
Earthwork		
Borrow Sand	CY	15000
No. 89 aggregate	CY	10000
No. 4 aggregate	CY	5000
Gabion Stone	CY	12000
Crusher Run	CY	300
Subsurface and Surface Drainage Improvements		
Nyloplast Drain Basin (8" Dia. HDPE)	EA	27
Precast Concrete Headwall (8" Dia. HDPE) Terac. Drains	EA	3
Precast Concrete Headwall (12" Dia. HDPE)	EA	1
Precast Concrete Headwall (24" Dia. HDPE)	EA	4
CPP (8" Dia.) Corrugated Plastic Pipe	LF	260
HDPE pipe (8" Dia.) ADS N-12	LF	1700
HDPE pipe (6" Dia.) ADS N-12	LF	50
HDPE pipe (12" Dia.) ADS N-12	LF	65
HDPE pipe (24" Dia.) ADS N-12	LF	265
CMP (28" Dia.) Corrugated Metal Pipe	LF	25
Flume Box Relocation and Concrete Pad Construction		
Concrete	CY	3
Site/Surface Restoration		
Topsail	CY	100
Downstream Ditch No. 1		
Excavate Ditch and Transport Excavated Materials	CY	605
Borrow Sand	CY	210
No. 89 aggregate	CY	190
No. 4 aggregate	CY	84
Gabion Stone	CY	142
Downstream Ditch No. 2		
Excavate Ditch and Transport Excavated Materials	CY	75
Borrow Sand	CY	210
No. 89 aggregate	CY	190
No. 4 aggregate	CY	84
Gabion Stone	CY	142

Note: These are the Engineer's estimated quantities. The Contractor(s) is responsible for developing their bid quantities based on the plans and specifications provided.



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Client/Project
MOBILE AREA WATER &
SEWER SYSTEM (MAWSS)
BIG CREEK LAKE DAM TOE BERM
AND DRAINAGE IMPROVEMENTS
Mobile County, Alabama

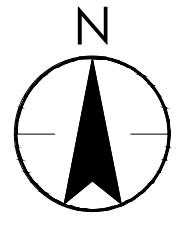
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GENERAL NOTES

Revision:0 Sheet: 3 of 17
Drawing No.

G-002

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BIG CREEK LAKE
NORMAL POOL EL. 108'

TANNER WILLIAMS ROAD (HWY 70)

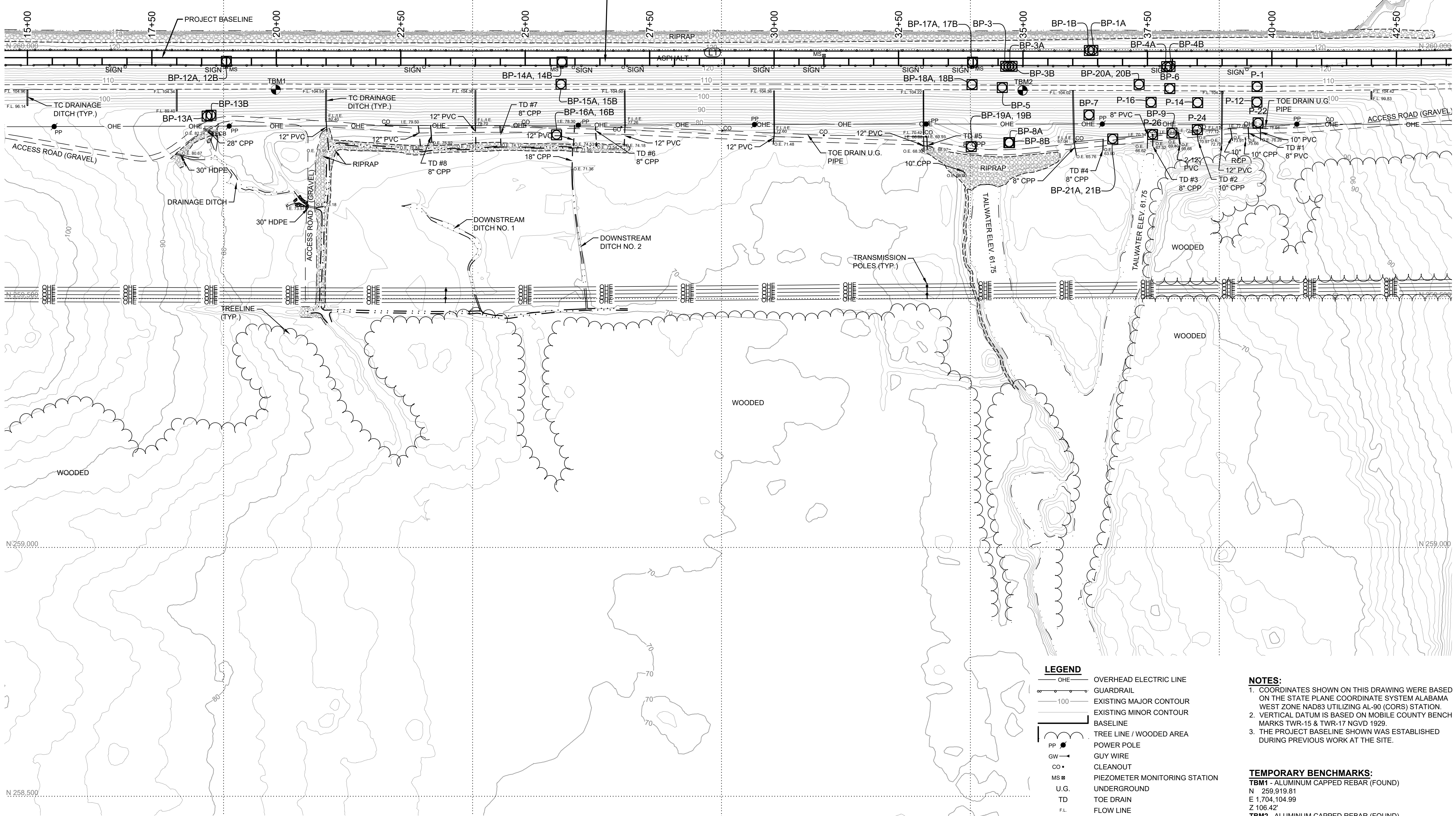
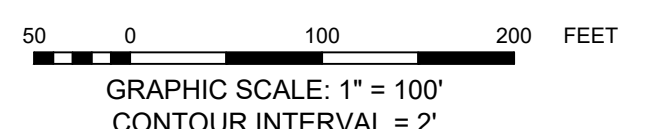


TABLE OF BASELINE COORDINATES								
NUMBER	BEGIN STATION	NORTHING	EASTING	LENGTH	BEARING	END STATION	NORTHING	EASTING
L1	10+00.00	259,984.48	1,703,105.78	3625.00'	S89°57'56"E	46+25.00	259,982.30	1,706,730.78

- LEGEND**
- OHE OVERHEAD ELECTRIC LINE
 - GUARDRAIL
 - 100 EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - BASELINE
 - TREE LINE / WOODED AREA
 - PP POWER POLE
 - GW GUY WIRE
 - CO CLEANOUT
 - MS# PIEZOMETER MONITORING STATION
 - U.G. UNDERGROUND
 - TD TOE DRAIN
 - FL FLOW LINE
 - IE INLET ELEVATION
 - OE OUTLET ELEVATION
 - CPP CORRUGATED PLASTIC PIPE
 - HDPE HIGH DENSITY POLYETHYLENE PIPE
 - PVC POLYVINYL CHLORIDE PIPE
 - TC TERRACOTTA DRAINAGE TILE
 - PIEZOMETER

- NOTES:**
- COORDINATES SHOWN ON THIS DRAWING WERE BASED ON THE STATE PLANE COORDINATE SYSTEM ALABAMA WEST ZONE NAD83 UTILIZING AL-90 (CORS) STATION.
 - VERTICAL DATUM IS BASED ON MOBILE COUNTY BENCH MARKS TWR-15 & TWR-17 NGVD 1929.
 - THE PROJECT BASELINE SHOWN WAS ESTABLISHED DURING PREVIOUS WORK AT THE SITE.

TEMPORARY BENCHMARKS:
TBM1 - ALUMINUM CAPPED REBAR (FOUND)
 N 259,919.81
 E 1,704,104.99
 Z 106.42'
TBM2 - ALUMINUM CAPPED REBAR (FOUND)
 N 259,917.99
 E 1,705,604.98
 Z 105.29'



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		KA	Appd	2024.07.02	1

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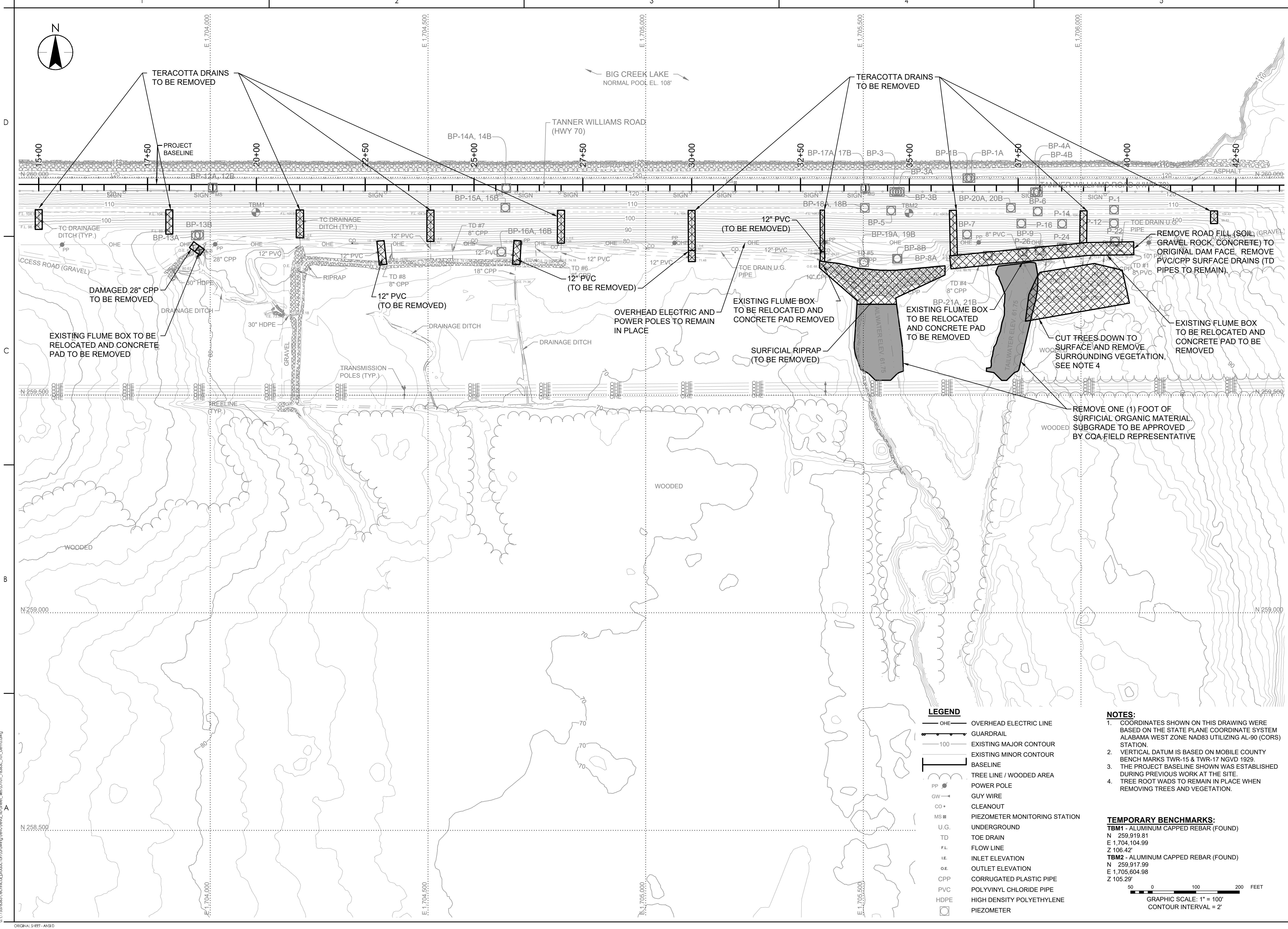
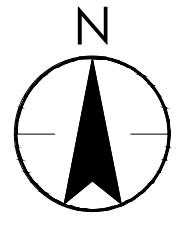
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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
 BIG CREEK LAKE DAM TOE BERM AND DRAINAGE IMPROVEMENTS
 Mobile County, Alabama

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EXISTING CONDITIONS AND BASELINE LAYOUT

Revision: 0 Sheet: 4 of 17
 Drawing No.

C-100

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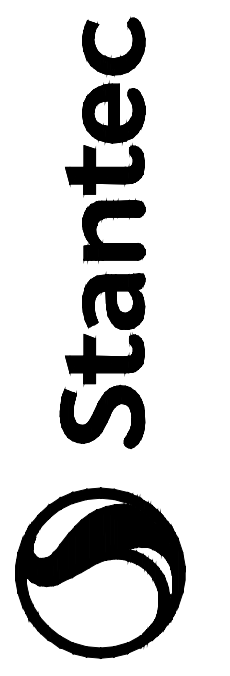
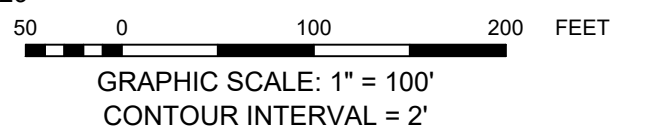


LEGEND

	OHE	OVERHEAD ELECTRIC LINE
	GR	GUARDRAIL
	100	EXISTING MAJOR CONTOUR
		EXISTING MINOR CONTOUR
		BASILINE
		TREE LINE / WOODED AREA
	PP	POWER POLE
	GW	GUY WIRE
	CO	CLEANOUT
	MS	PIEZOMETER MONITORING STATION
	U.G.	UNDERGROUND
	TD	TOE DRAIN
	FL	FLOW LINE
	IE	INLET ELEVATION
	OE	OUTLET ELEVATION
	CPP	CORRUGATED PLASTIC PIPE
	PVC	POLYVINYL CHLORIDE PIPE
	HDPE	HIGH DENSITY POLYETHYLENE
		PIEZOMETER

- NOTES:**
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 - THE PROJECT BASELINE SHOWN WAS ESTABLISHED DURING PREVIOUS WORK AT THE SITE.
 - TREE ROOT WADS TO REMAIN IN PLACE WHEN REMOVING TREES AND VEGETATION.

TEMPORARY BENCHMARKS:
TBM1 - ALUMINUM CAPPED REBAR (FOUND)
 N 259,919.81
 E 1,704,104.99
 Z 106.42'
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 Z 105.29'



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REV	DATE	BY	APPD	DESCRIPTION

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**MOBILE AREA WATER &
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 BIG CREEK LAKE DAM TOE BERM
 AND DRAINAGE IMPROVEMENTS
 Mobile County, Alabama

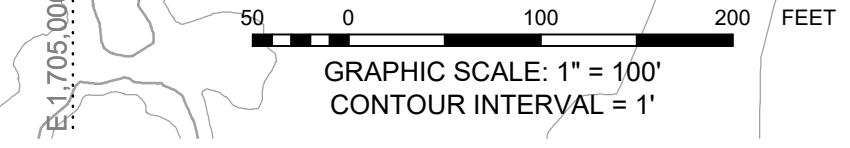
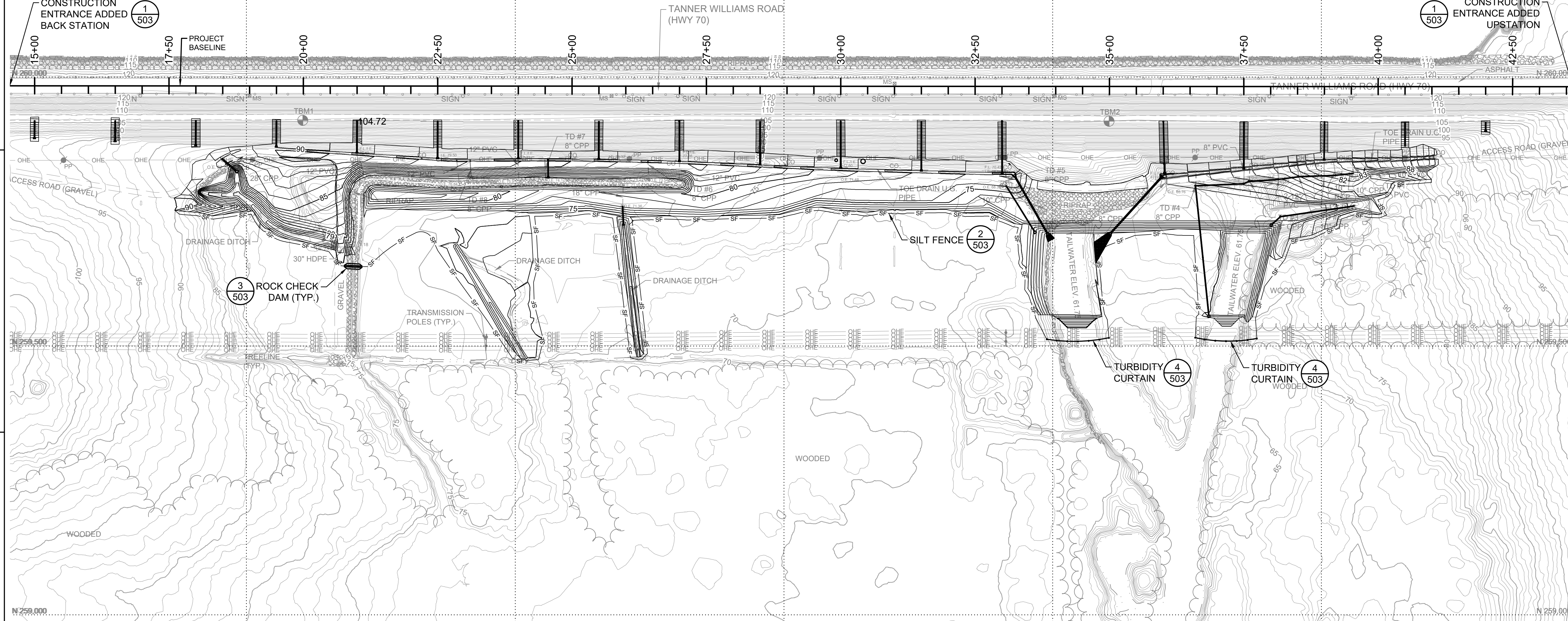
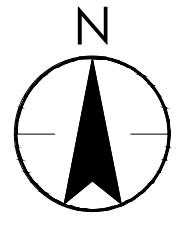
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Title
DEMOLITION PLAN

Revision:0 Sheet: 5 of 17
 Drawing No.
C-101

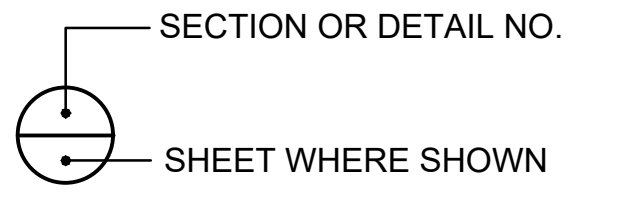
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- LEGEND**
- OHE → OVERHEAD ELECTRIC LINE
 - GR → GUARDRAIL
 - 100 - - - EXISTING MAJOR CONTOUR
 - 100 - - - PROPOSED MAJOR CONTOUR
 - 100 - - - PROPOSED MINOR CONTOUR
 - SF - - - PROPOSED SILT FENCE
 - PP ● BASELINE
 - GW → POWER POLE
 - CO → GUY WIRE
 - MS ● CLEANOUT
 - U.G. ● PIEZOMETER MONITORING STATION UNDERGROUND
 - TD → TOE DRAIN
 - FL → FLOW LINE
 - IE → INLET ELEVATION
 - OE → OUTLET ELEVATION
 - CPP → CORRUGATED PLASTIC PIPE
 - PVC → POLYVINYL CHLORIDE PIPE
 - → PIEZOMETER

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 N 259.919.81
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 E 1,705,604.98
 Z 105.29'



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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)

BIG CREEK LAKE DAM
 TOE BERM

Mobile County, Alabama

Project No.: 175578363
 File Name: C-103_78363C_103_EPSC

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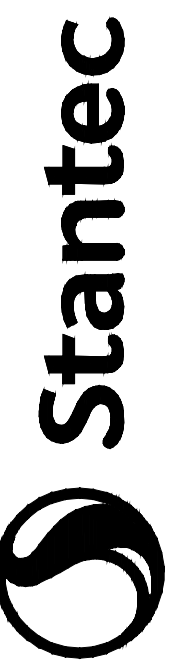
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Title

EROSION PROTECTION AND SEDIMENT CONTROL (EPSC) PLAN

Revision: 0 Sheet: 7 of 17
 Drawing No.

C-103



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Appd	Appd

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Client/Project
MOBILE AREA WATER &
SEWER SYSTEM (MAWSS)

BIG CREEK LAKE DAM
TOE BERM

Mobile County, Alabama

Project No.: 175578363

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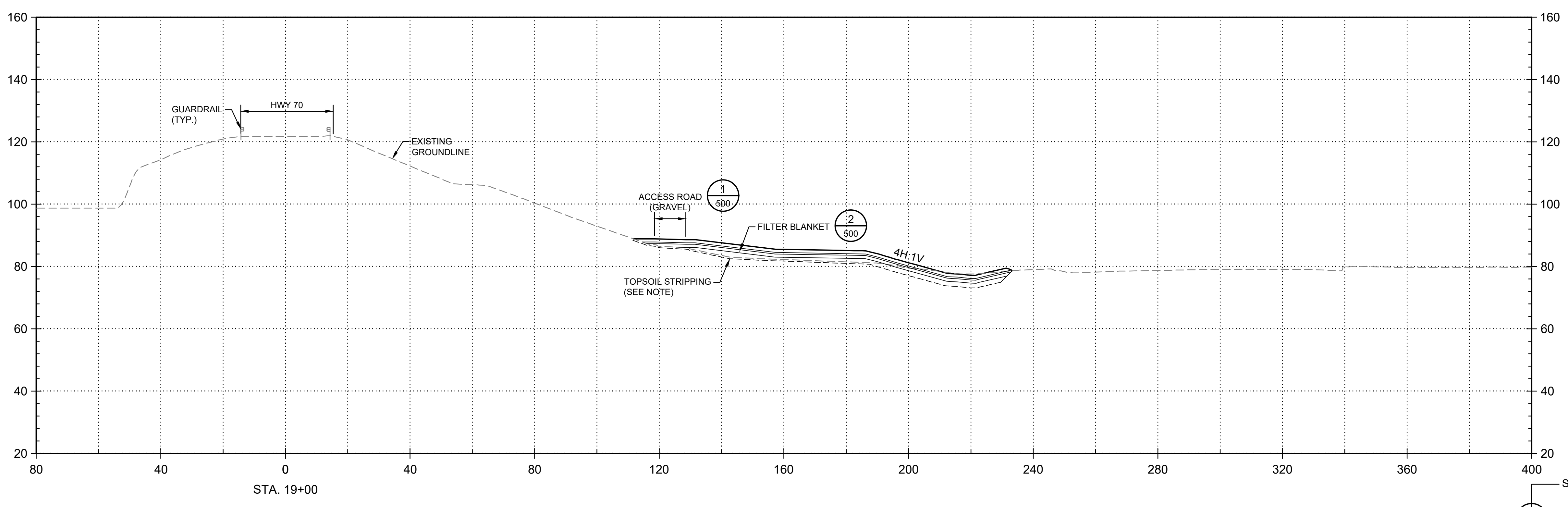
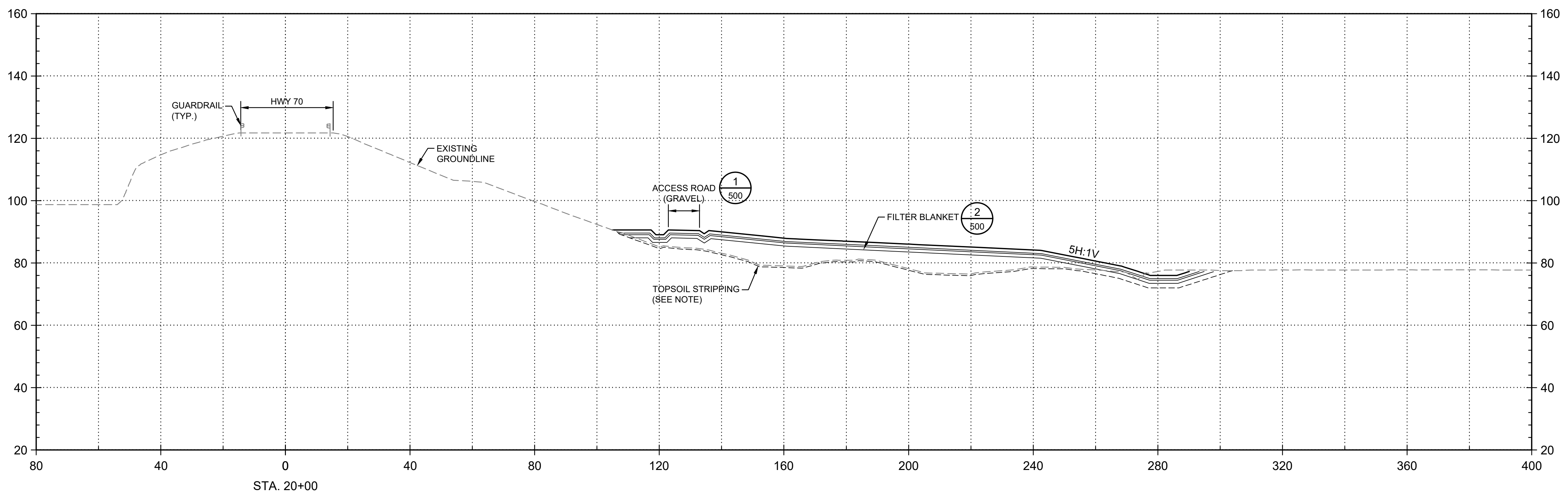
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Revision: 0 Sheet: 8 of 17
Drawing No.

C-200

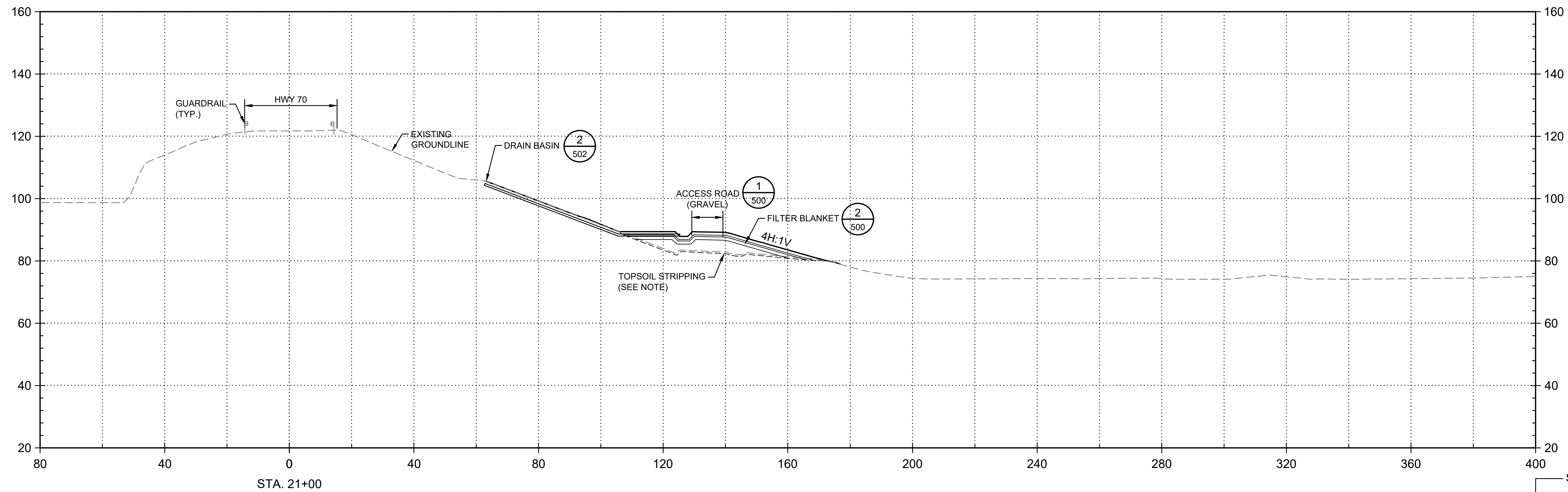
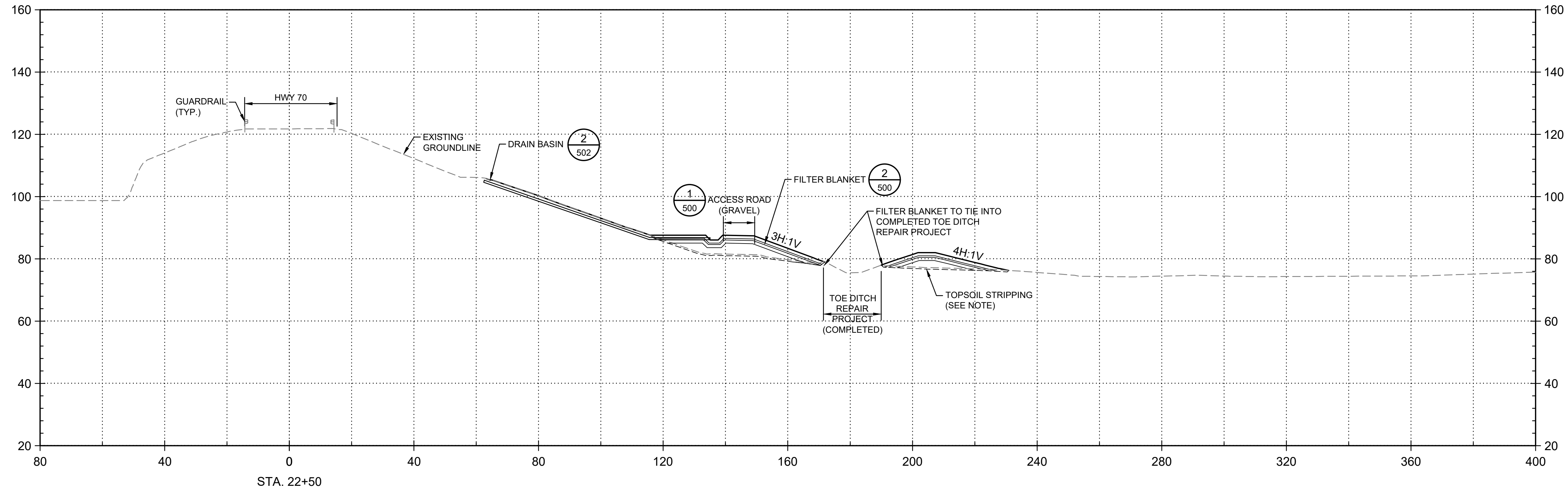


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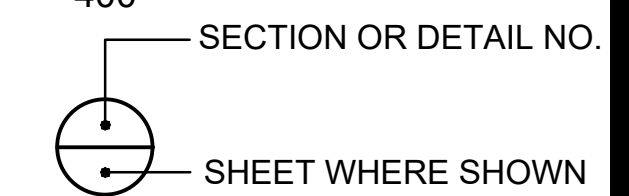
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NOTE:
PREPARE SUBGRADE FOR SAND FILTER LAYER PLACEMENT.
STRIP VEGETATION AND TOPSOIL TO A DEPTH NOT EXCEEDING 6"
TO REMOVE GRASS, ROOTS, AND OTHER ORGANIC MATERIAL.
REMOVE ROCK FRAGMENTS GREATER THAN 3 INCHES.

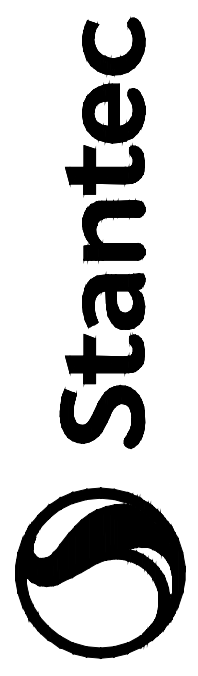
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NOTE:
 PREPARE SUBGRADE FOR SAND FILTER LAYER PLACEMENT.
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REFERENCE KEY



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 Mobile County, Alabama

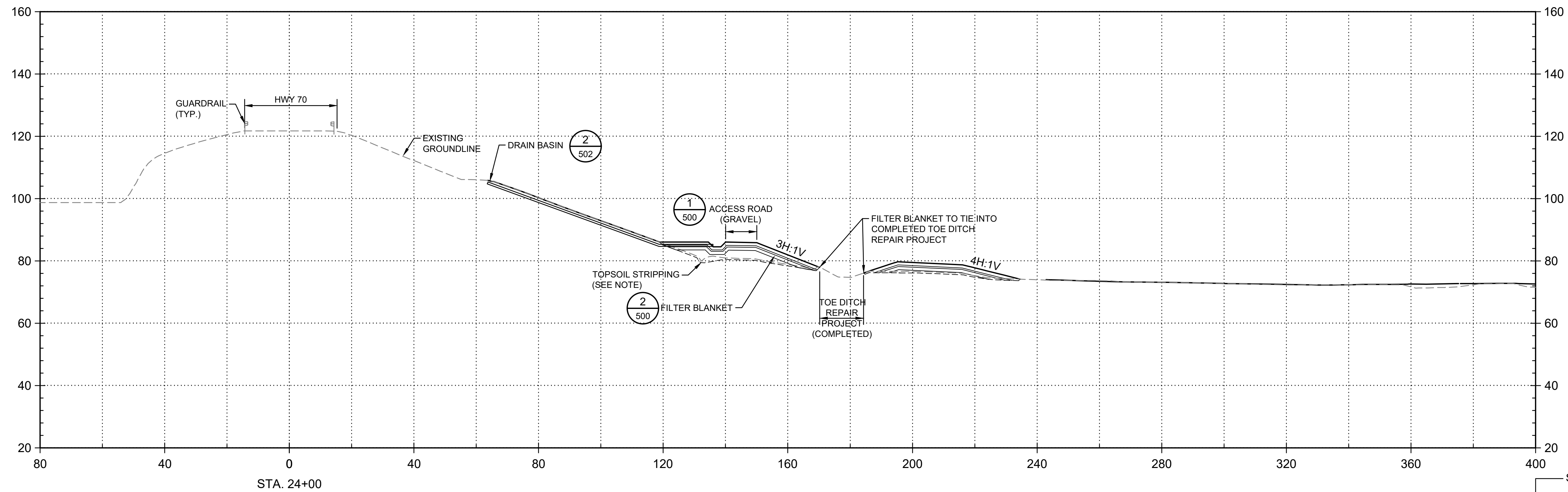
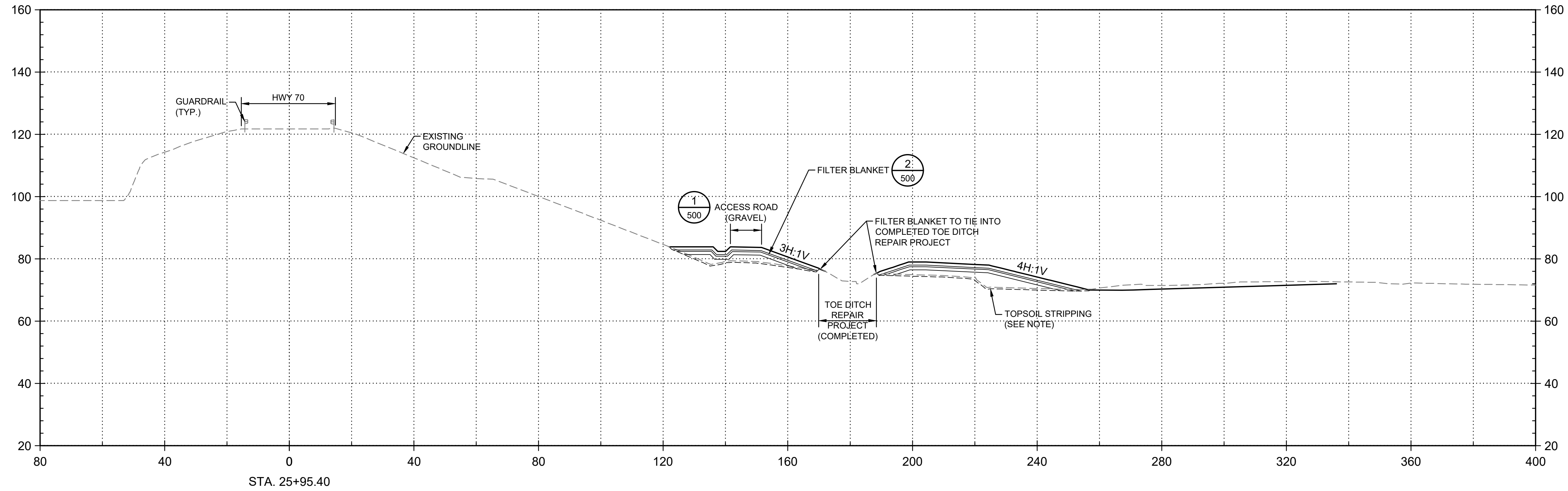
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 21+00 AND STA. 22+50

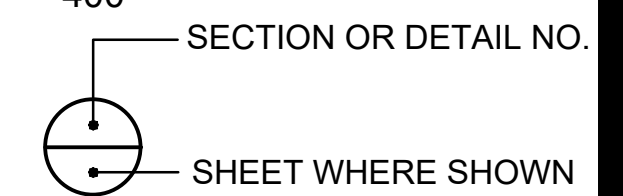
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C-201

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NOTE:
 PREPARE SUBGRADE FOR SAND FILTER LAYER PLACEMENT.
 STRIP VEGETATION AND TOPSOIL TO A DEPTH NOT EXCEEDING 6"
 TO REMOVE GRASS, ROOTS, AND OTHER ORGANIC MATERIAL.
 REMOVE ROCK FRAGMENTS GREATER THAN 3 INCHES.



REFERENCE KEY

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2024.07.02	2024.07.02
YTY/AM/DB	YTY/AM/DB
By	By
KA	KA
Appd	Appd
2024.07.02	2024.07.02
YTY/AM/DB	YTY/AM/DB
By	By
KA	KA
Appd	Appd

Permit/Seal

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

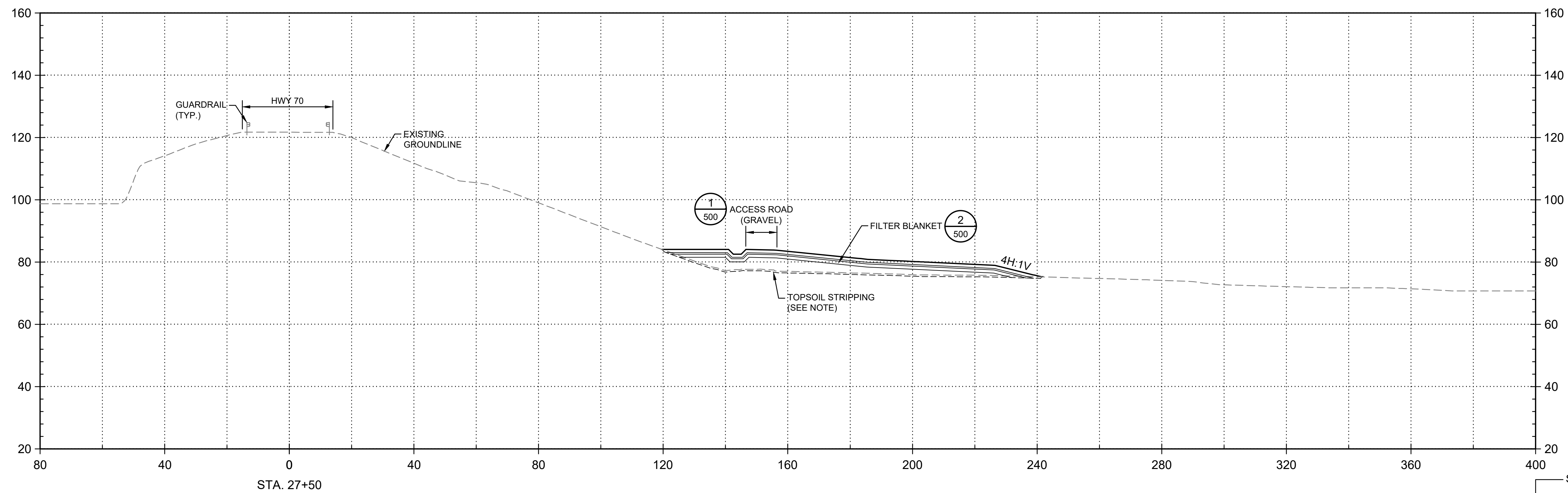
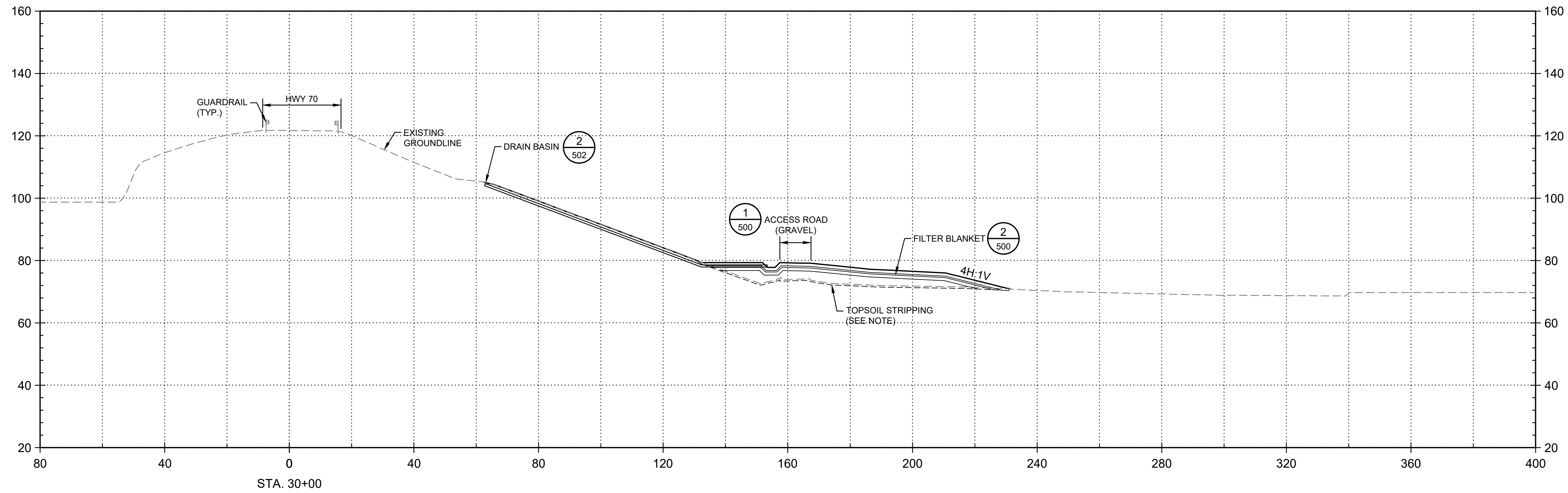
Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
 MOBILE AREA WATER &
 SEWER SYSTEM (MAWSS)
 BIG CREEK LAKE DAM TOE BERM
 AND DRAINAGE IMPROVEMENTS
 Mobile County, Alabama

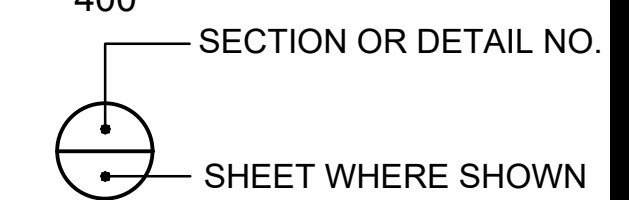
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 Dsgn. Chkd. YTY/AM/DB

Title
 CROSS SECTIONS - STA.
 24+00 AND STA. 25+95.40

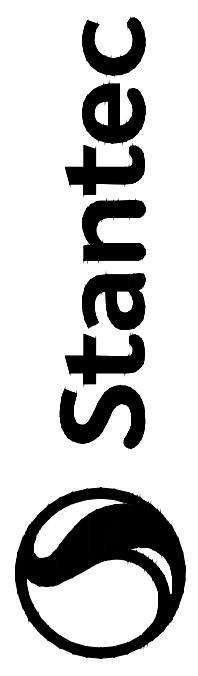
Revision: 0 Sheet: 10 of 17
 Drawing No.



NOTE:
 PREPARE SUBGRADE FOR SAND FILTER LAYER PLACEMENT.
 STRIP VEGETATION AND TOPSOIL TO A DEPTH NOT EXCEEDING 6"
 TO REMOVE GRASS, ROOTS, AND OTHER ORGANIC MATERIAL.
 REMOVE ROCK FRAGMENTS GREATER THAN 3 INCHES.



REFERENCE KEY



Stantec
 3052 Beaufort Centre Circle
 Lexington, Kentucky 40513-1703
 Tel: (859) 422-3000
 www.stantec.com

Consultant

FOR BID	ISSUED	BY	DATE	REVISION
		KA	2024.07.02	1
		Appd		
		KA	2024.07.02	2
		Appd		
		KA		
		Appd		
		KA		
		Appd		

Permit/Seal

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Client/Project
 MOBILE AREA WATER &
 SEWER SYSTEM (MAWSS)
 BIG CREEK LAKE DAM TOE BERM
 AND DRAINAGE IMPROVEMENTS
 Mobile County, Alabama

Project No.: 175578363
 File Name: C-200_C-205_78363C_301_XS1
 Scale: 1" = 20'

Dwn. Dsgn. Chkd. 2024.07.02
 YYYMM.DD

Revision: 0 Sheet: 11 of 17
 Drawing No.

C-203

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Consultant

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		Appd		

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Client/Project
**MOBILE AREA WATER &
 SEWER SYSTEM (MAWSS)**
 BIG CREEK LAKE DAM TOE BERM
 AND DRAINAGE IMPROVEMENTS
 Mobile County, Alabama

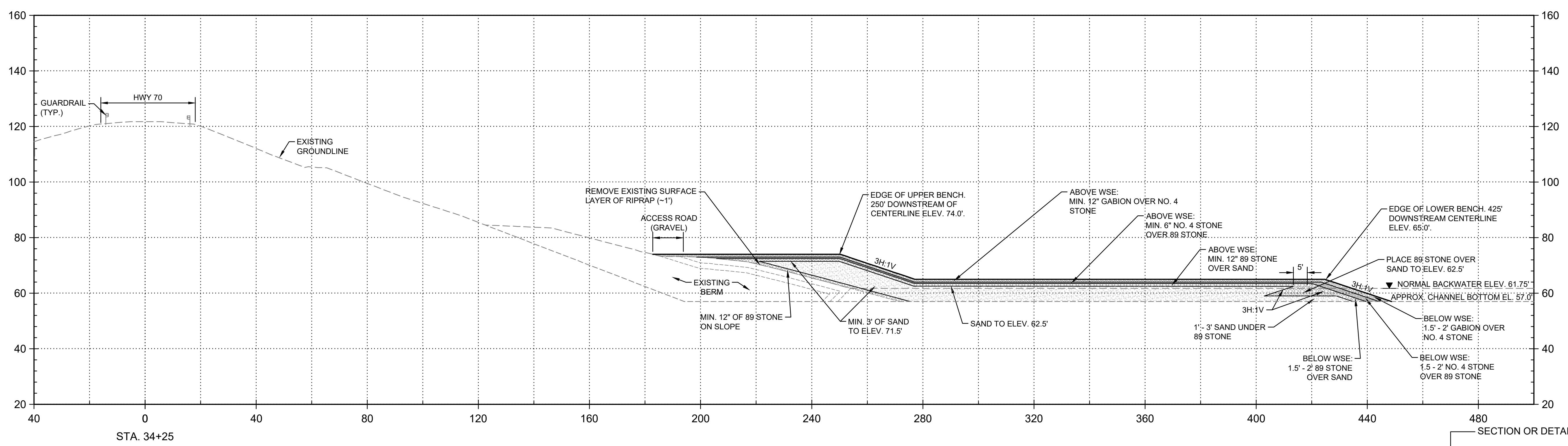
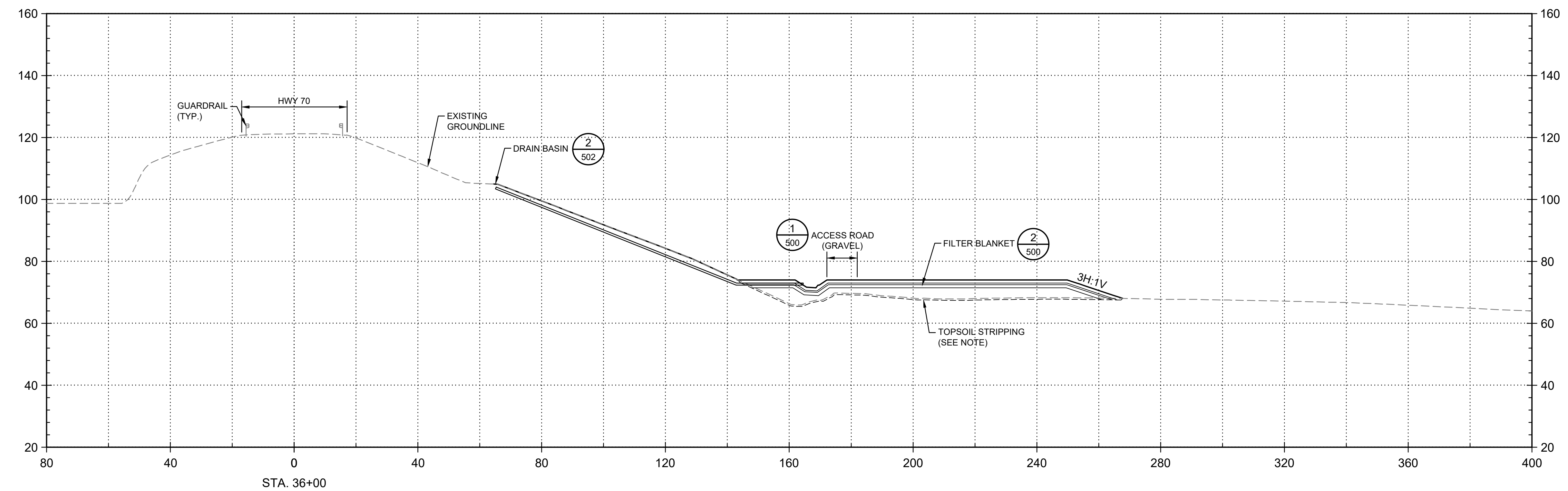
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Dwn. Dsgn. Chkd. 2024.07.02
 YYYMMDD

Title
**CROSS SECTIONS - STA.
 34+25 AND STA. 36+00**

Revision:0 Sheet: 12 of 17
 Drawing No.

C-204



NOTE:
 PREPARE SUBGRADE FOR SAND FILTER LAYER PLACEMENT.
 STRIP VEGETATION AND TOPSOIL TO A DEPTH NOT EXCEEDING 6"
 TO REMOVE GRASS, ROOTS, AND OTHER ORGANIC MATERIAL.
 REMOVE ROCK FRAGMENTS GREATER THAN 3 INCHES.



REFERENCE KEY

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ORIGINAL SHEET - ANSI D

Consultant

FOR BID	ISSUED	BY	APP'D	DATE	REVISION
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		KA	Appd	2024.07.02	4
		KA	Appd	2024.07.02	5
		KA	Appd	2024.07.02	6
		KA	Appd	2024.07.02	7
		KA	Appd	2024.07.02	8
		KA	Appd	2024.07.02	9
		KA	Appd	2024.07.02	10

Permit/Seal

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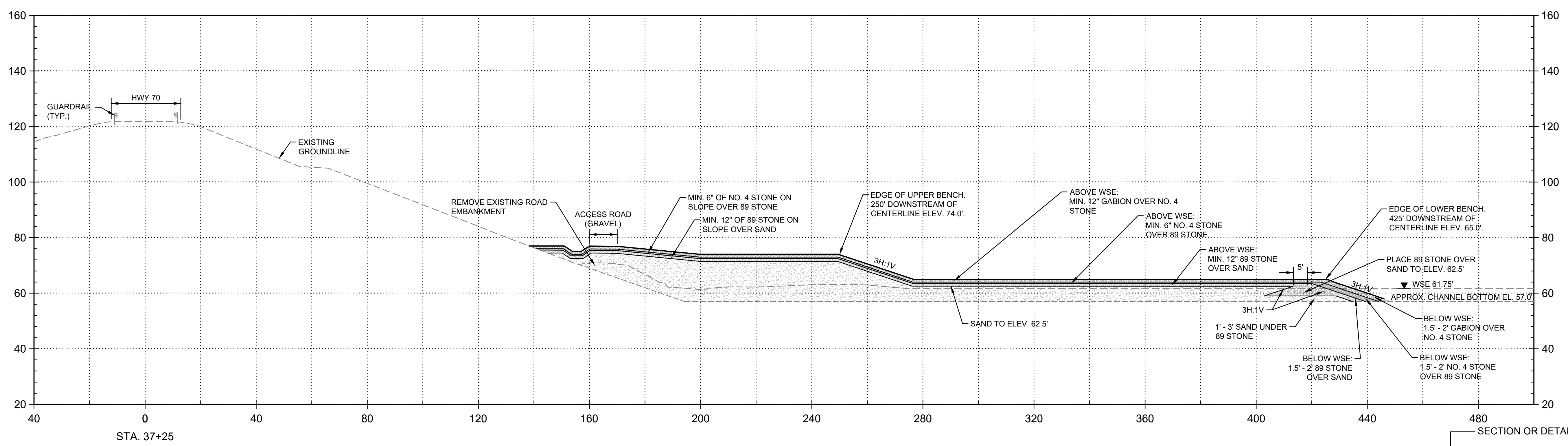
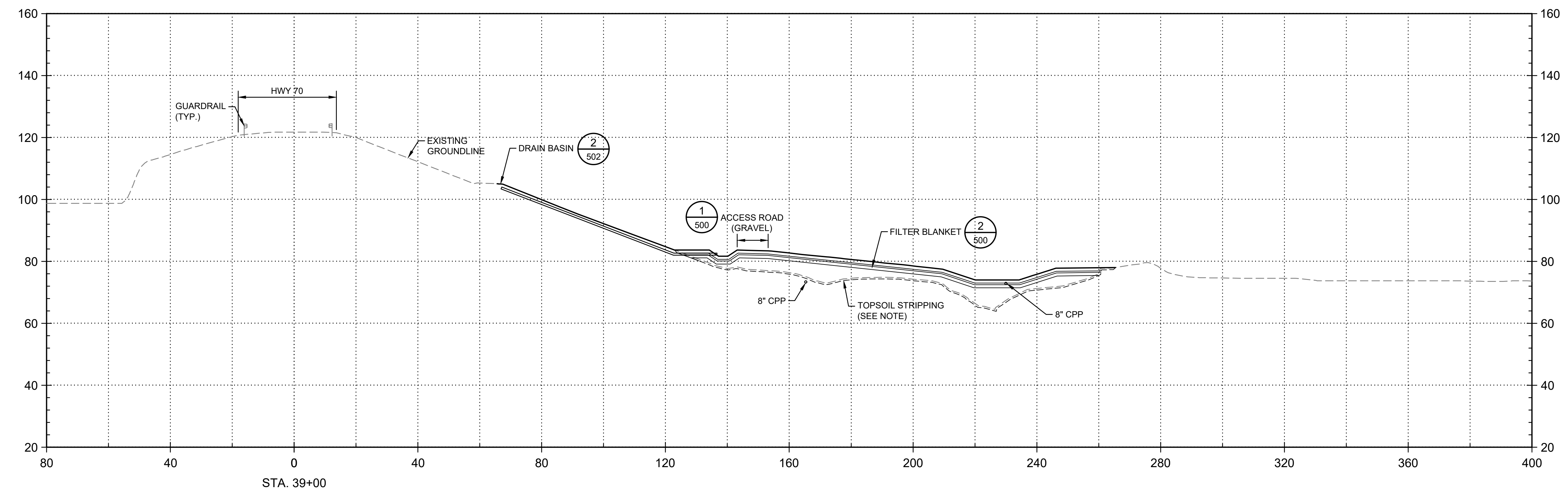
Client/Project
 MOBILE AREA WATER &
 SEWER SYSTEM (MAWSS)
 BIG CREEK LAKE DAM TOE BERM
 AND DRAINAGE IMPROVEMENTS
 Mobile County, Alabama

Project No.: 175578363
 File Name: C-200_C-205_78363C_301_XS1
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Dwn. Dsgn. Chkd. 2024.07.02
 YYYMMDD

Revision: 0 Sheet: 13 of 17
 Drawing No.

C-205



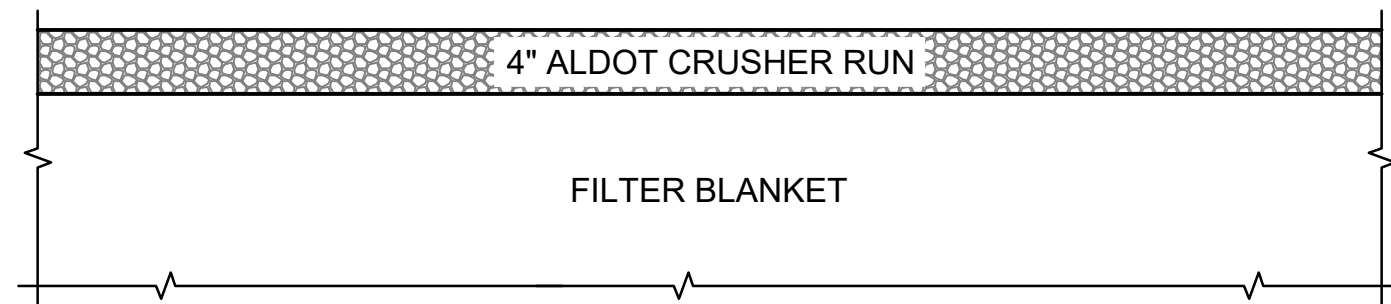
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 PREPARE SUBGRADE FOR SAND FILTER LAYER PLACEMENT.
 STRIP VEGETATION AND TOPSOIL TO A DEPTH NOT EXCEEDING 6"
 TO REMOVE GRASS, ROOTS, AND OTHER ORGANIC MATERIAL.
 REMOVE ROCK FRAGMENTS GREATER THAN 3 INCHES.

SECTION OR DETAIL NO.
 SHEET WHERE SHOWN

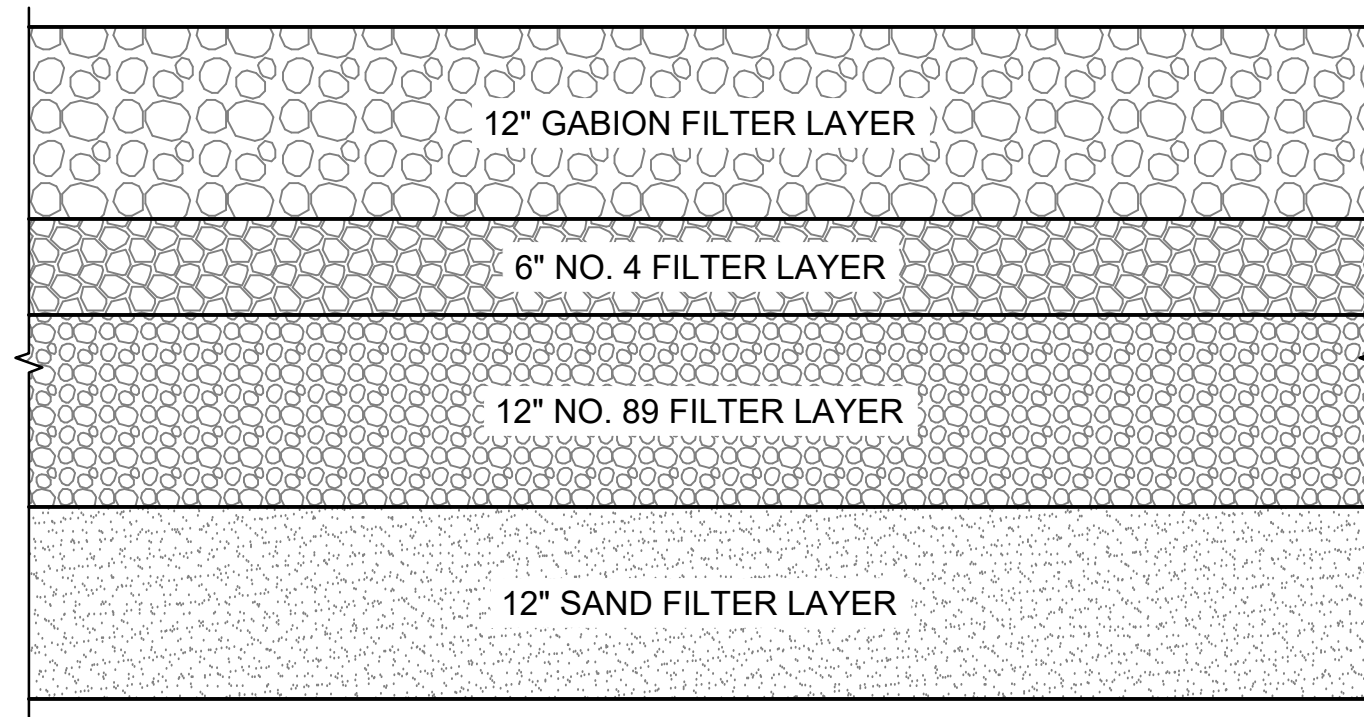
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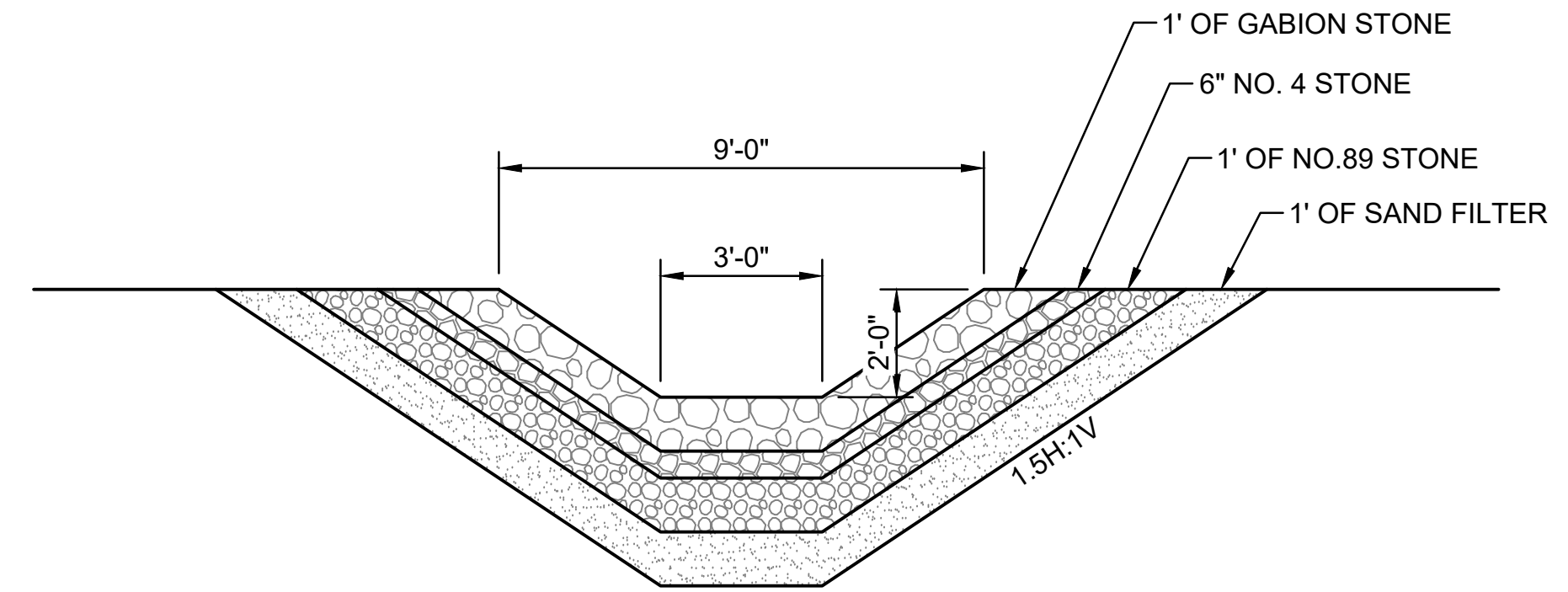
ORIGINAL SHEET - ANSI D



1
500
DETAIL - ROAD SURFACE
NOT TO SCALE

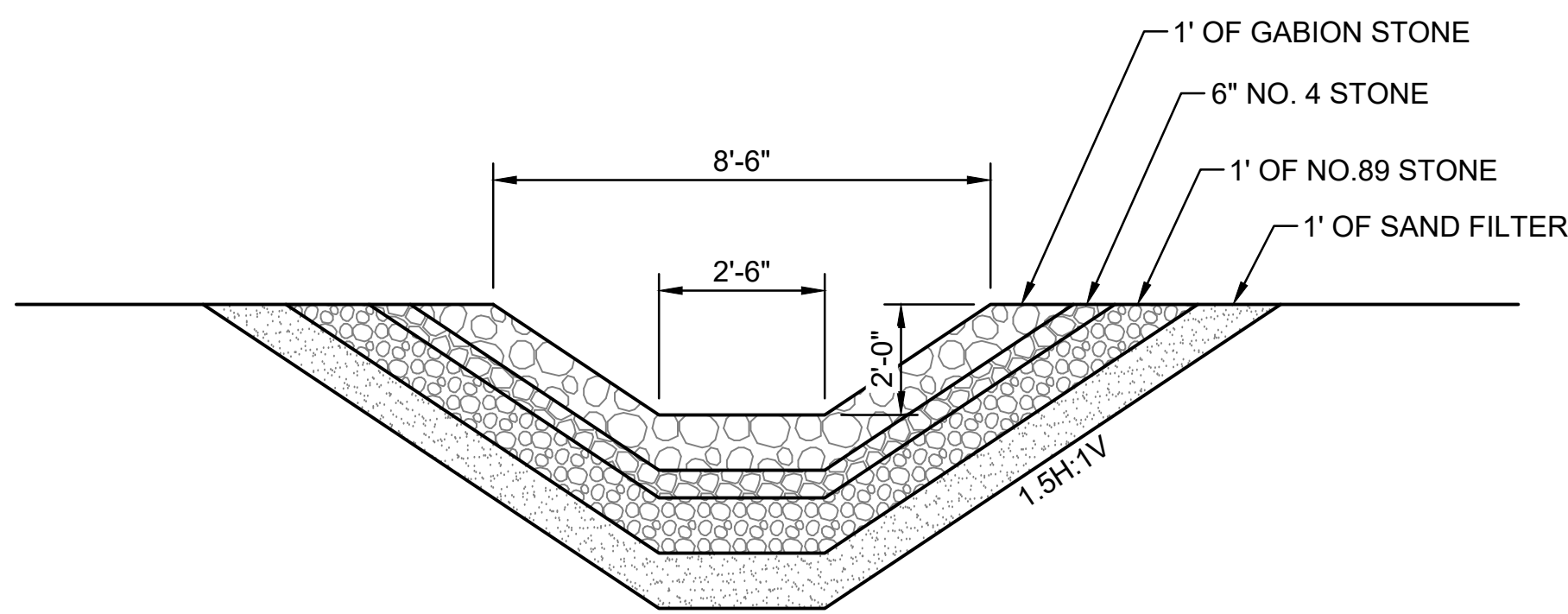


2
500
DETAIL - FILTER BLANKET
NOT TO SCALE



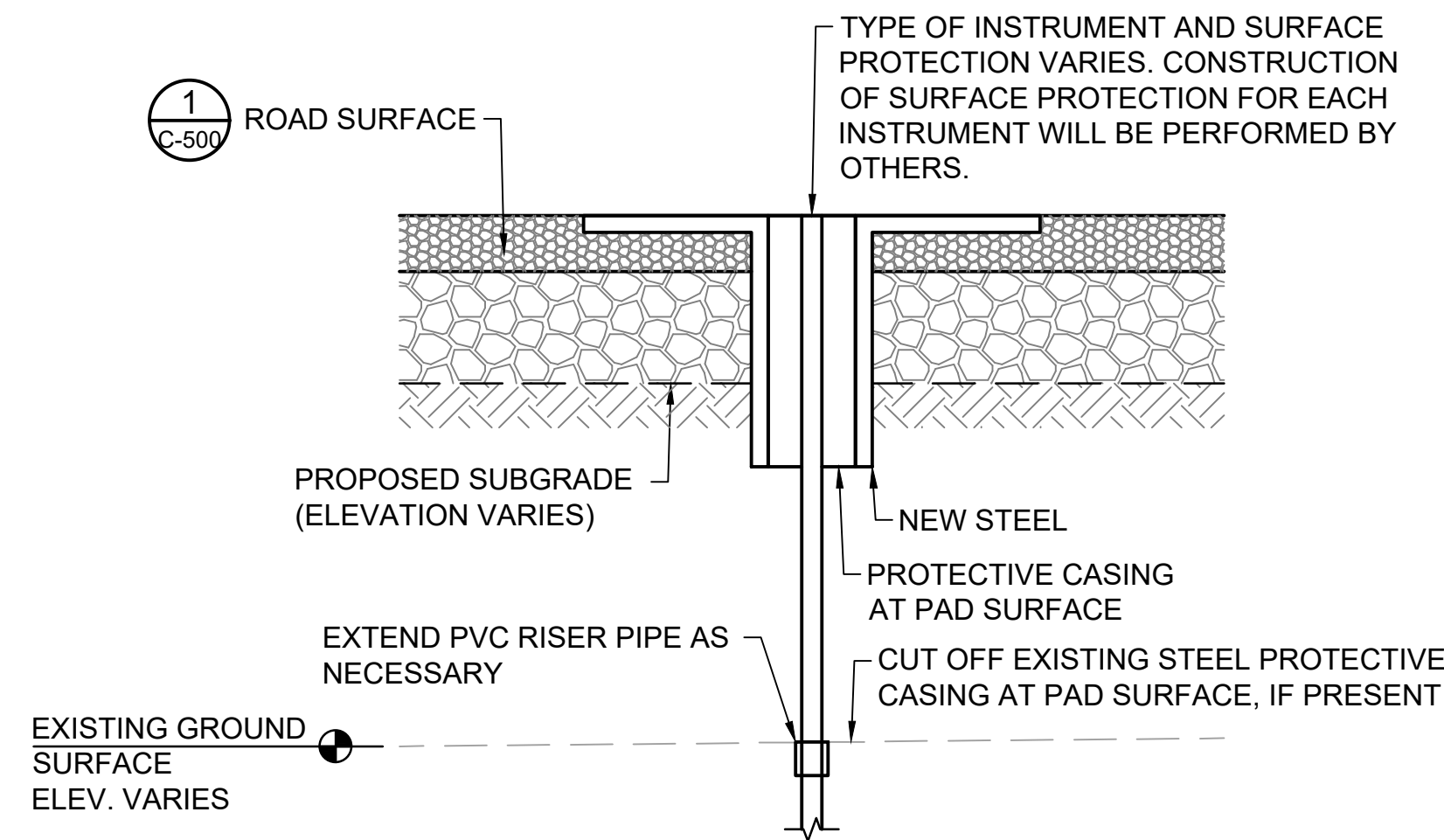
NOTE: DITCH SHALL BE SLOPED TO MATCH THE GRADE AND PROVIDE PROPER DRAINAGE.

3
500
DETAIL - 3' FLAT BOTTOM DITCH
NOT TO SCALE



NOTE: DITCH SHALL BE SLOPED TO MATCH THE GRADE AND PROVIDE PROPER DRAINAGE.

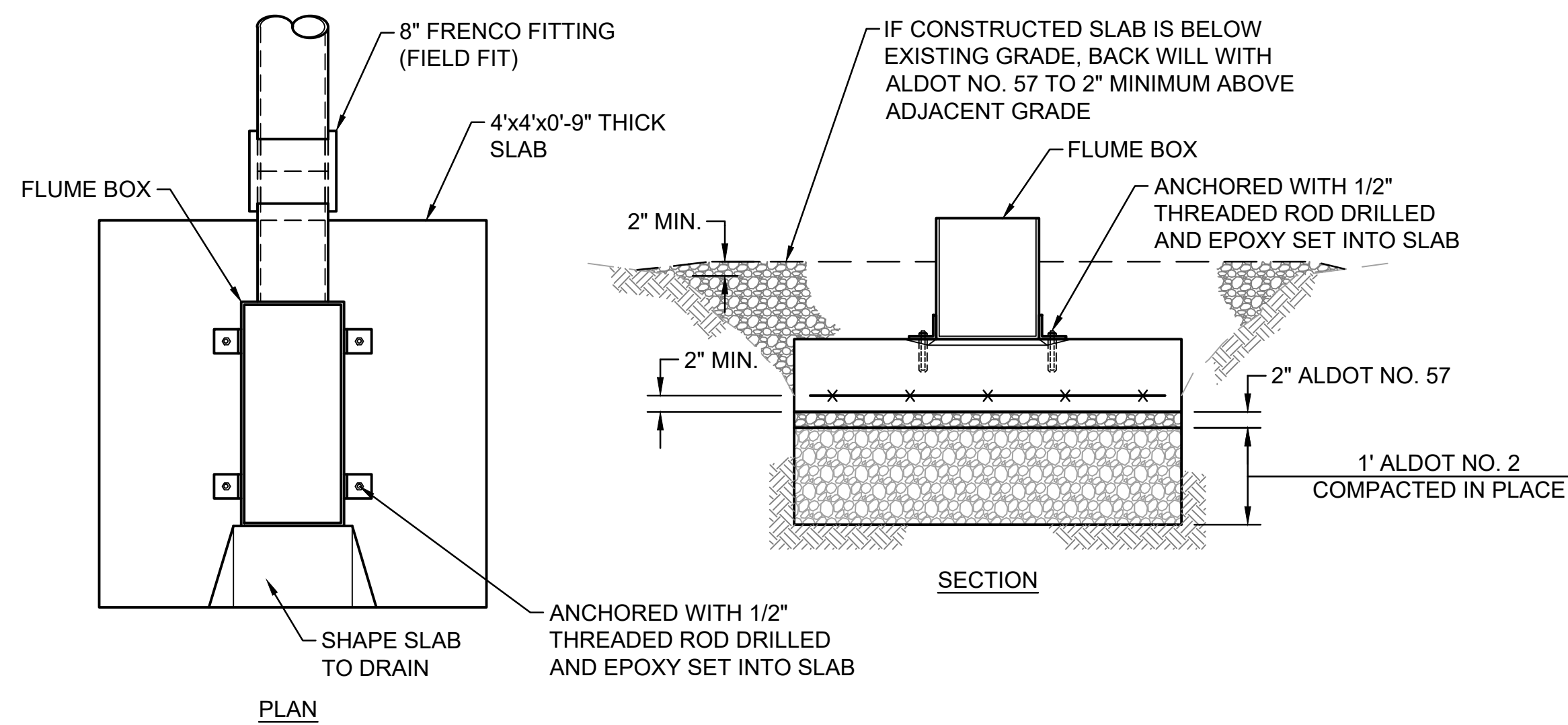
4
500
DETAIL - 2.5' FLAT BOTTOM DITCH
NOT TO SCALE



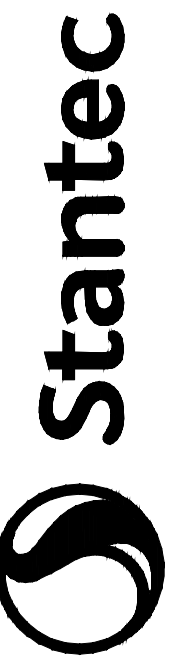
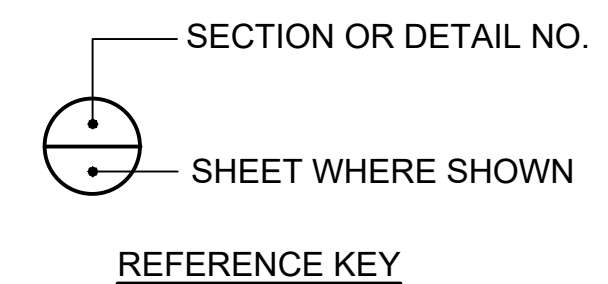
EXISTING FLUSH MOUNT INSTRUMENTATION - TO BE RAISED

- NOTES:
1. USE EXTREME CARE TO NOT DAMAGE THE INSTRUMENT WHEN REMOVING THE STEEL PROTECTIVE CASING, WHERE NEEDED.
 2. CONTRACTOR SHALL NOTIFY MAWSS PRIOR TO REMOVAL OF SURFACE PROTECTION OF INSTRUMENTATION AND AUTOMATION EQUIPMENT FOR DISCONNECTION ACTIVITIES.

5
500
DETAIL - RAISING PIEZOMETER INSTRUMENTATION
SCALE: 1"=1'-0"



6
500
DETAIL - FLUME BOX INLET
NOT TO SCALE



Stantec
3052 Beaufort Centre Circle
Lexington, Kentucky 40513-1703
Tel: (859) 422-3000
www.stantec.com

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ECR/BD	BY	DATE	REVISION
YTY/MM/DD	KA	2024/07/02	App'd
YTY/MM/DD	KA	2024/07/02	Issued

Permit/Seal

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Client/Project
MOBILE AREA WATER &
SEWER SYSTEM (MAWSS)
BIG CREEK LAKE DAM TOE BERM
AND DRAINAGE IMPROVEMENTS
Mobile County, Alabama

Project No.: 175578363
File Name: C-500_78363C_500_DTL1
Scale: AS SHOWN
ACC ATR SMK 2024.07.02
Dwn. Dsgn. Chkd. YTY/MM/DD

Title
DETAILS

Revision:0 Sheet: 14 of 17
Drawing No.

C-500

Consultant

FOR BID	ISSUED	BY	DATE
		KA	2024.07.02
		Appd	YYYY.MM.DD

FOR BID	ISSUED	BY	DATE
		KA	2024.07.02
		Appd	YYYY.MM.DD

Permit/Seal

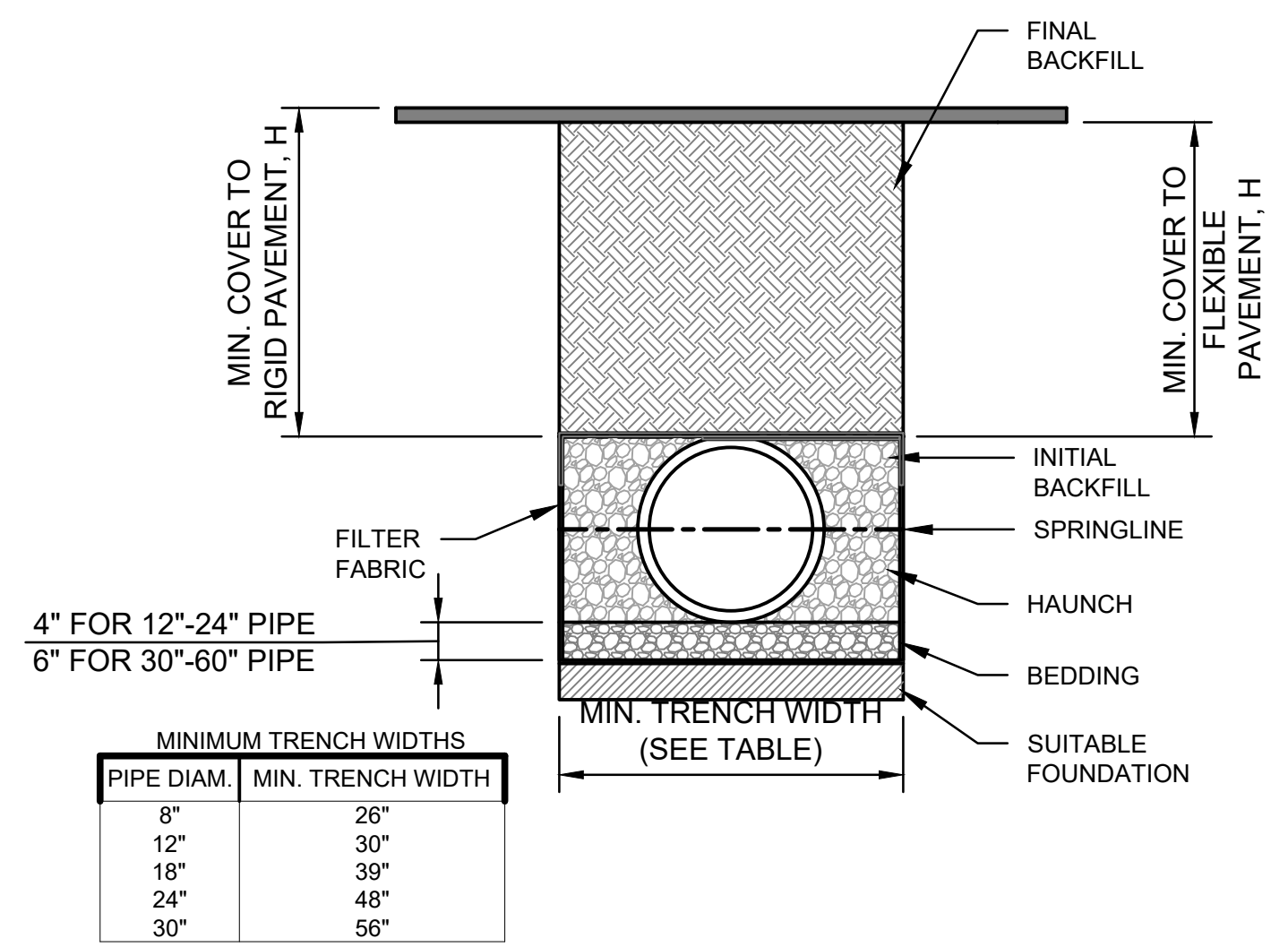
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Client/Project
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
BIG CREEK LAKE DAM TOE BERM AND DRAINAGE IMPROVEMENTS
 Mobile County, Alabama

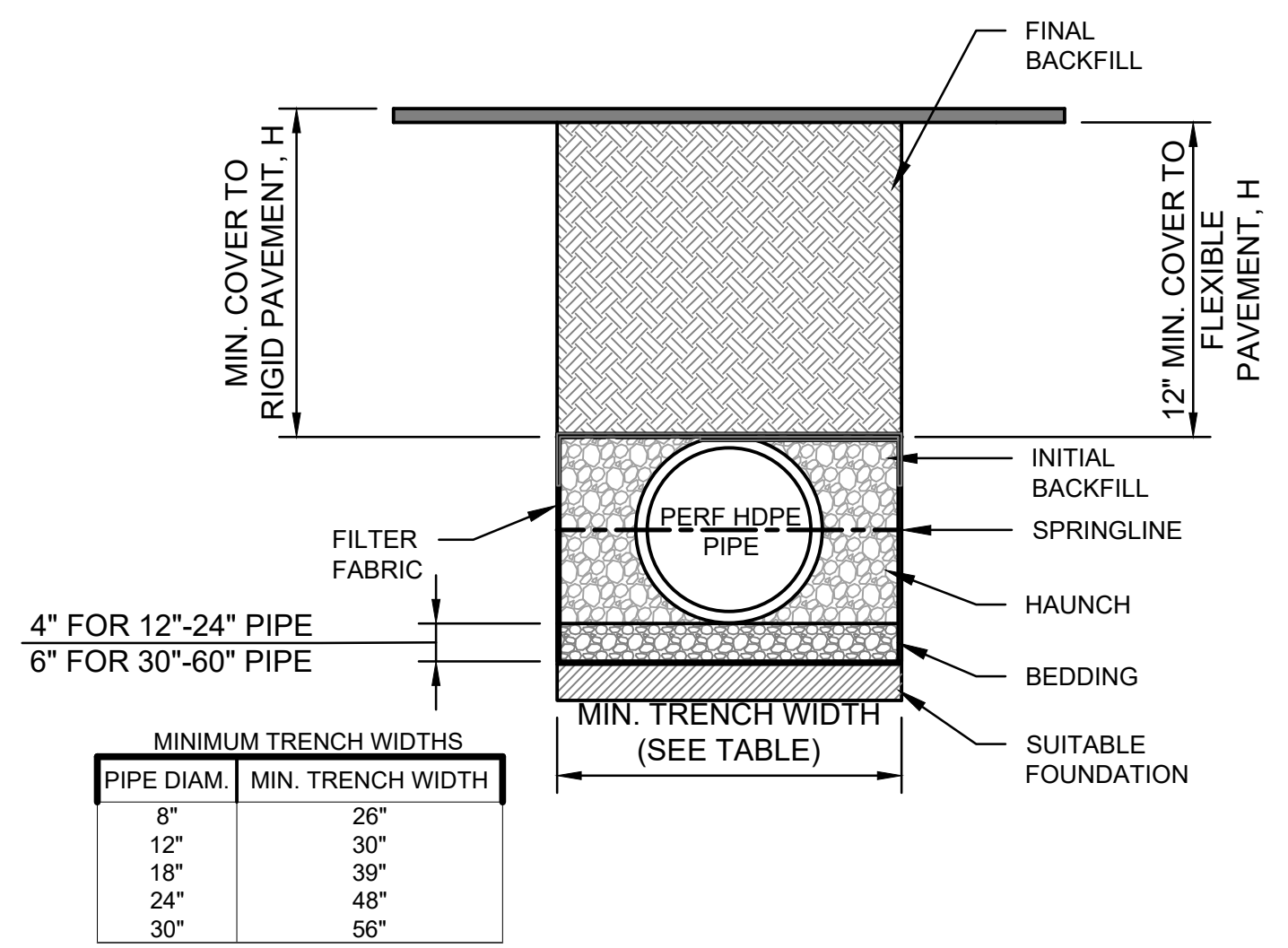
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ACC	ATR	SMK	2024.07.02
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Revision:0 Sheet: 15 of 17
 Drawing No.

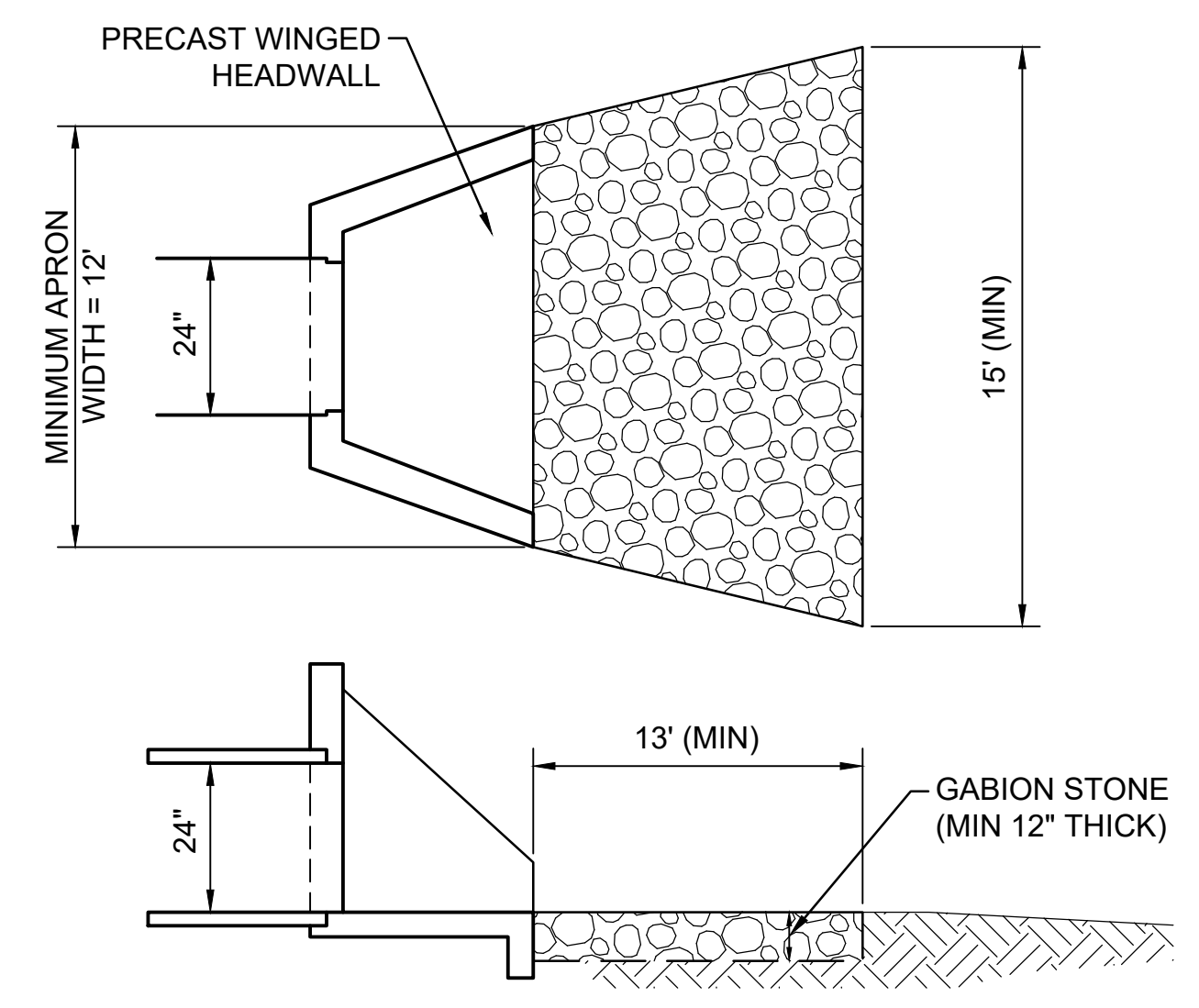


1 DETAIL - PIPE TRENCH
 501 NOT TO SCALE

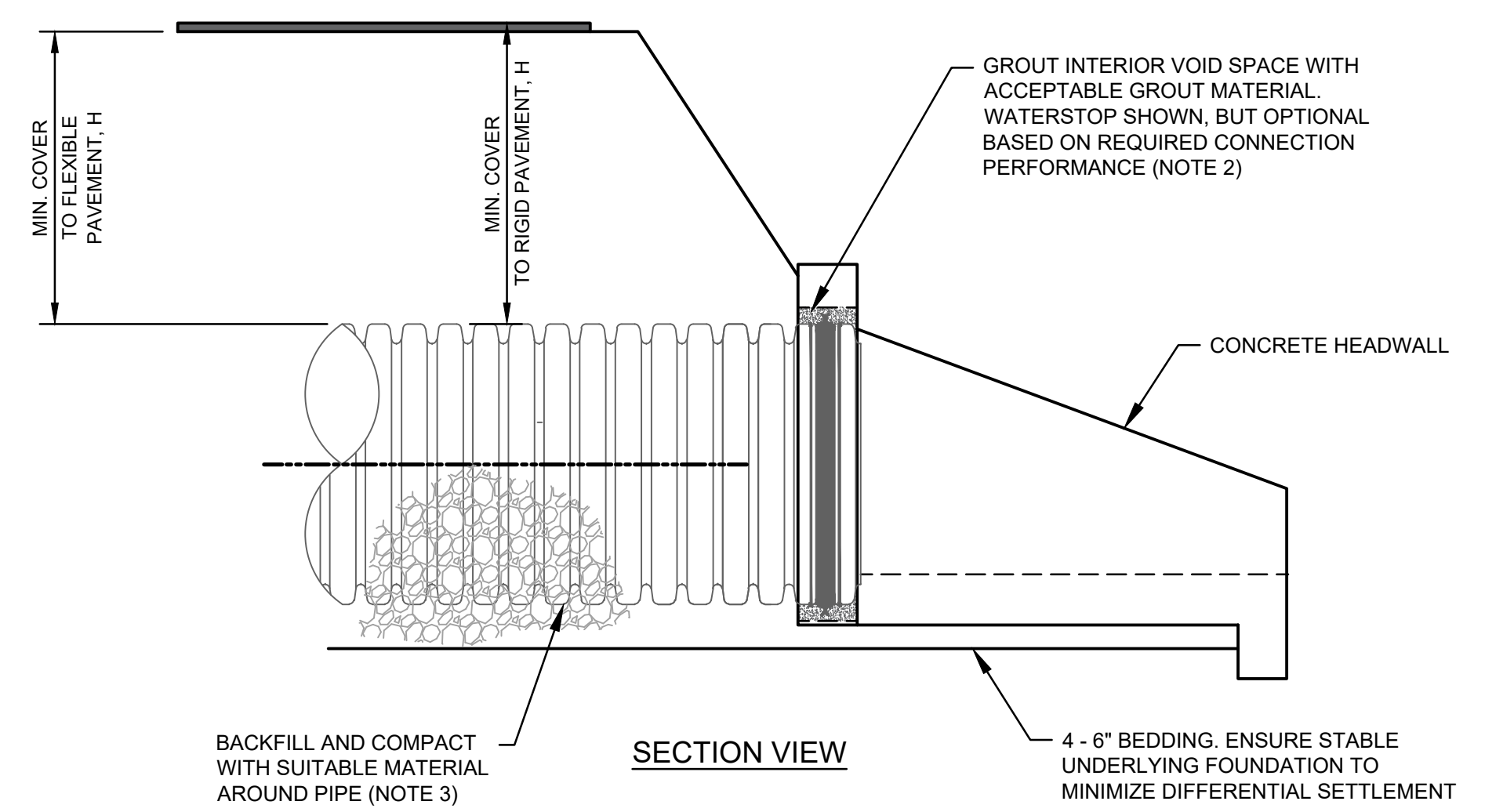


2 DETAIL - SLOTTED PIPE TRENCH
 501 NOT TO SCALE

- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION
 - FILTER FABRIC:** MEASURES SHALL BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BEDDING AND BACKFILL MATERIAL.
 - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" FOR 4"-24" AND 6" FOR 30"-60".
 - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I IN THE PIPE ZONE EXTENDING TO THE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

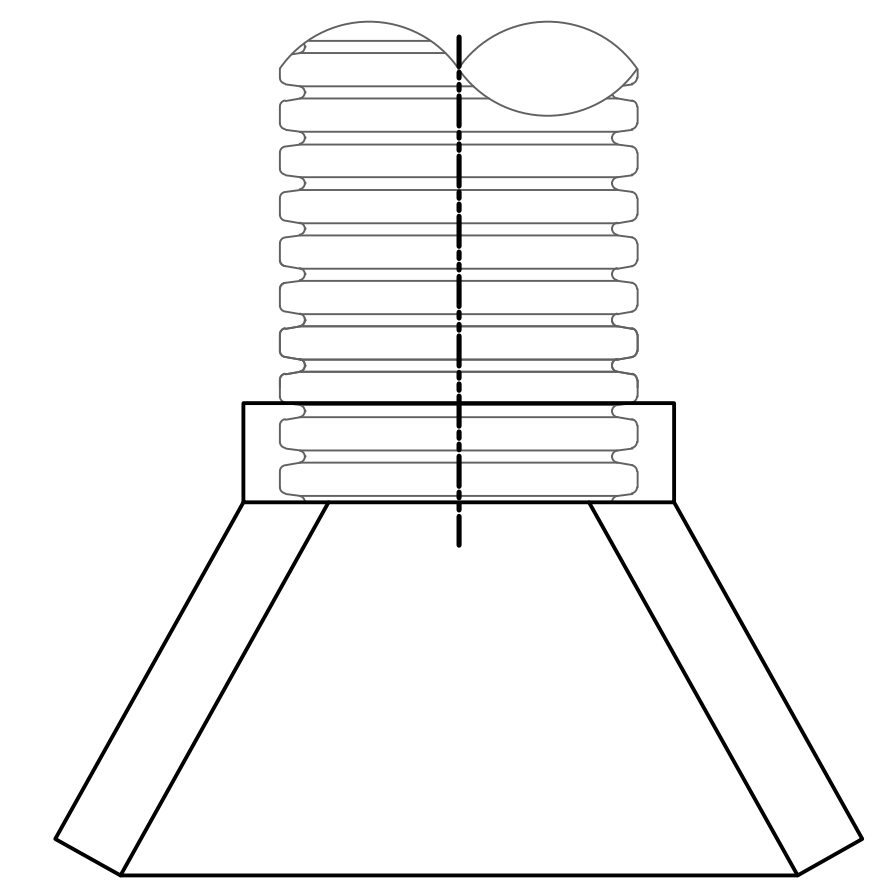


3 ENERGY DISSIPATION DETAIL
 501 NOT TO SCALE

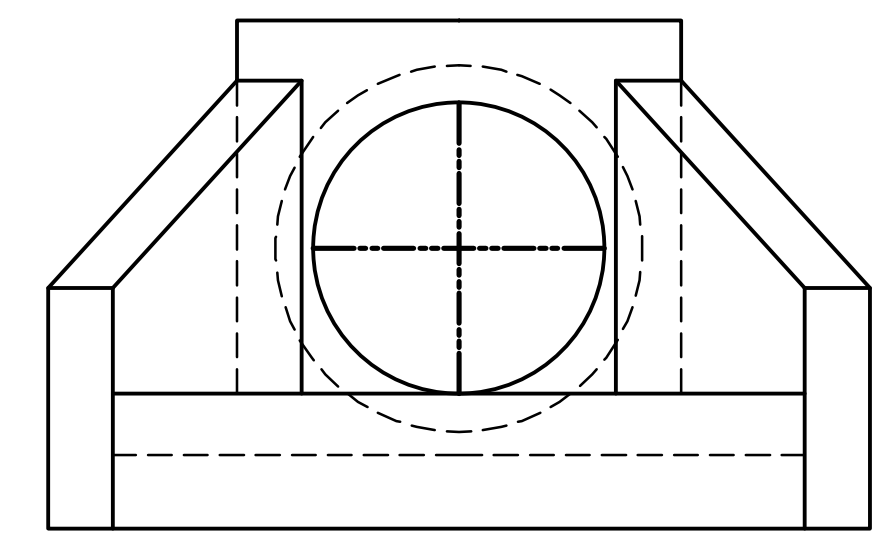


- NOTES:**
- INSERT PIPE INTO HEADWALL, WITH PIPE RESTING ON BEDDING. THE PIPE SHOULD BE IN THE APPROXIMATE CENTER OF THE OPENING.
 - GROUT PIPE INTO CONCRETE STRUCTURE WITH NON-SHRINK GROUT. SOLID MASONRY UNITS, FULLY GROUTED IN PLACE, MAY BE USED TO HELP FILL LARGE VOIDS. SEE STANDARD DETAILS STD-203 AND 206A FOR ADDITIONAL INFORMATION ON THE APPLICATION OF WATERSTOP.
 - PIPE AT AND AROUND STRUCTURE CONNECTION TO BE INSTALLED PER ASTM D2321, LATEST EDITION. SEE STANDARD DETAIL 100 SERIES FOR PIPE INSTALLATION DETAILS AND TECHNICAL NOTE: 5.04 CONNECTIONS TO MANHOLES AND STRUCTURES FOR ADDITIONAL INFORMATION.
 - MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (300mm) FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" (300mm) UP TO 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

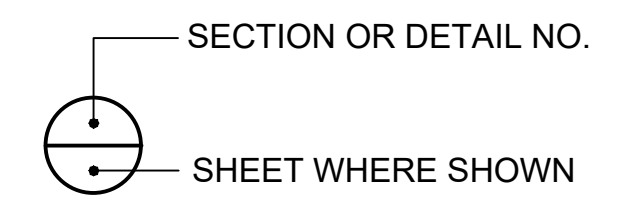
4 DETAIL - PIPE TO CONCRETE HEADWALL CONNECTION
 501 NOT TO SCALE



TOP VIEW



FRONT VIEW



REFERENCE KEY

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 Date: 2024.07.02 11:42 AM User: smk

"General Decision Number: AL20240110 06/28/2024

Superseded General Decision Number: AL20230110

State: Alabama

Construction Type: Heavy

County: Mobile County in Alabama.

HEAVY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	06/28/2024

* ENGI0653-013 06/03/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR (PIPELINE)		
Backhoe, Excavator, Trackhoe.....	\$ 48.89	18.00
Bulldozer.....	\$ 48.89	18.00

* SUAL2015-038 08/02/2017

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 19.05	7.86
CEMENT MASON/CONCRETE FINISHER, Includes Water Sewer Lines.....		
	\$ 13.78 **	0.00
ELECTRICIAN.....	\$ 19.56	0.00
LABORER: Common or General, Includes Water Sewer Lines.....		
	\$ 15.21 **	6.16
LABORER: Pipelayer, Includes Water Sewer Lines.....		
	\$ 11.95 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe, Includes Water Sewer Lines (Excludes, PIPELINE).....		
	\$ 13.56 **	0.00
OPERATOR: Loader, Includes Water Sewer Lines.....		
	\$ 17.64	2.14
TRUCK DRIVER: Dump Truck, Includes Water Sewer Lines.....		
	\$ 12.56 **	2.12

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====
** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

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 <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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.

State Adopted Rate Identifiers

Classifications listed under the "SA" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R. 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the "SA" identifier took effect under state law in the state from which the rates were adopted.

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 National Office because National Office has 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.

=====

END OF GENERAL DECISION"

**State of Alabama
Alabama Department of Environmental Management
State Revolving Fund (SRF) Loan Program**



SRF Section
Permits and Services Division
Alabama Department of Environmental Management
Post Office Box 301463
Montgomery, Alabama 36130-1463

(334) 271-7793
(334) 271-7950 FAX

**Supplemental General Conditions
for BIL Assisted**

Public Drinking Water and Wastewater
Facilities Construction Contracts



SRF Project Number: _____

Table of Contents:

I	ADEM Special Conditions.....	SGC-3
II	Bonds and Insurance.....	SGC-3
III	Utilization of Disadvantaged Business Enterprises (DBEs)	SGC-3
IV	Six Affirmative Steps for Good Faith DBE Solicitation	SGC-4
V	Documentation Required from Loan Recipient and Contractor	SGC-5
VI	Resources for Identifying DBE Contractors/Subcontractors.....	SGC-7
VII	DBE Compliance Form.....	SGC-8
VIII	EPA Form 6100-2 DBE Subcontractor Participation Form.....	SGC-10
IX	EPA Form 6100-3 DBE Subcontractor Performance Form.....	SGC-12
X	EPA Form 6100-4 DBE Subcontractor Utilization Form.....	SGC-14
XI	EPA Form 5700-52 A MBE/WBE Utilization Reports.....	SGC-16
XII	Changes to Approved DBE Compliance Form.....	SGC-23
XIII	Certification Regarding Equal Employment Opportunity.....	SGC-24
XIV	Debarred Firms Certification.....	SGC-25
XV	Davis-Bacon and Related Acts.....	SGC-26
XVI	American Iron and Steel.....	SGC-35
XVII	Build America Buy America(BABA) Requirement.....	SGC-36
XVIII	Project Sign Detail - CWSRF.....	SGC-37
XIX	Project Sign Detail - DWSRF.....	SGC-38
XX	Construction Contract Requirements.....	SGC-39
XXI	Project Review and Cost Summary.....	SGC-40

I – ADEM Special Conditions

1. Construction within State rights-of-way shall be in accordance with the Alabama Department of Transportation policies and procedures.
2. Construction is to be carried out in compliance with applicable NPDES permits and in a manner that prevents bypassing of raw wastewater flows during construction. If bypassing is anticipated, the ADEM NPDES Enforcement Branch (334-271-7975) shall be advised in advance and the contractor shall take all necessary steps to minimize the impacts of bypassing.
3. Siltation and soil erosion shall be minimized during construction. The contractor shall obtain an NPDES storm water permit for construction if required.
4. The owner shall provide and maintain competent and adequate supervision and inspection.
5. ADEM and EPA shall have access to the site and the project work at all times.
6. These Special Conditions shall supersede any conflicting provisions of this contract.
7. **A project sign is required.** See **Parts XVIII and XIX, pages SGC-37 – SGC-38**, for more information.

II – Bonds and Insurance

Bonding requirements shall comply with Alabama Act No. 97-225. Provisions of the Act are summarized below:

1. Bid Bond – Not less than 5% of either the owner's estimated cost or of the proposed prime contractor's bid up to a maximum of \$10,000. The bid guarantee shall consist of a cashier's check drawn on an Alabama bank or a bid bond executed by a surety company duly authorized and qualified to make bonds in the State of Alabama.
2. Performance Bond – In an amount not less than 100% of the contract price.
3. Payment Bond – Payable to the awarding authority, shall be executed in an amount not less than 50% of the contract price.

In addition to the insurance requirements elsewhere in the specifications, the owner or the contractor, as appropriate, must acquire any flood insurance made available by the Federal Emergency Management Agency as required by 40 CFR 30.600 (b), if construction will take place in a flood hazard area identified by the Federal Emergency Management Agency.

III – Utilization of Disadvantaged Businesses Enterprises (DBEs)

It is the policy of the State Revolving Loan Fund (SRF) to promote a "fair share" of sub-agreement awards to **small, minority, and/or women-owned businesses** for equipment, supplies, construction, and services. Compliance with these contract provisions is required in order for project costs to be eligible for SRF funding. *The "fair share" objective is a goal, not a quota.* DBE (Disadvantaged Business Enterprise) is an all-inclusive business classification, which includes MBE (minority business enterprises and/or WBE (women business enterprises) and is used synonymously when these entities are referenced individually or collectively.

Failure on the part of the apparent successful bidder to submit required information to the Loan Recipient (Owner) may be considered (by the Loan Recipient (Owner)) in evaluating whether the bidder is responsive to the bid requirements. The project objectives for utilization of Minority Business Enterprises (MBEs) and Women's Business Enterprises (WBEs) are as follows:

Commodities (Supplies)	MBE 4%	WBE 11%
Contractual (Services)	MBE 8%	WBE 30%
Equipment	MBE 5%	WBE 20%
Construction	MBE 2.5%	WBE 3%

For purposes of clarification:

- This objective applies to any Federally assisted procurement agreement in excess of \$10,000.
- This objective necessitates three responsibilities; separate solicitations must be made of small and minority and women's business enterprises.
- A minority business is a business, at least 51 percent of which is owned and controlled by minority group members (Black; Hispanic; Asian American; American Indian; and, any other designations approved by the Office of Management and Budget).
- A women's business is a business, at least 51 percent of which is owned and controlled by one or more women.
- The control determination will revolve around the minority or woman owner's involvement in the day-to-day management of the business enterprise.
- Solicitation should allow adequate time for price analysis. ADEM recommends that contact be made no later than 15 days before bid opening.
- Efforts taken to comply with this objective must be documented in detail; maintain records of firms contacted, including any negotiation efforts to reach competitive price levels, and awards to the designated firms.
- ADEM recommends that the Loan Recipient (Owner) or proposed Prime Contractor utilizes the services of the Minority Business Development Service Centers. These Centers are funded by the U.S. Department of Commerce to provide technical, financial and contracting assistance to minority and women's business enterprises. These Centers are located in a number of Regional cities.
- Use of the services provided by these Centers does not absolve the Loan Recipient (Owner) or proposed Prime Contractor from pursuing additional efforts to meet this objective.

IV – Six Affirmative Steps for Good Faith DBE (MBE-WBE) Solicitation

The Loan Recipient (Owner) shall follow the six affirmative steps found in the SRF application when using loan funds to procure sources of supplies, construction and services.

If the successful bidder plans to subcontract a portion of the project, the bidder must submit to the owner within 10 days after bid opening, evidence of the affirmative steps taken to utilize small, minority and women's businesses. These six affirmative steps or 'good faith efforts' are required methods to ensure that DBEs have the opportunity to compete for procurements funded by EPA financial assistance dollars. Such affirmative steps are described as follows:

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. This will include placing DBEs on solicitation lists and soliciting them whenever there are potential sources.

2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitation for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. This will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the resources, services, and assistance of the AL Department of Transportation (ALDOT), Small Business Administration (SBA), and the Minority Business Development Agency of the Department of Commerce (MBDA).
6. If the Contractor awards subcontracts, it must take the steps described in items (1) through (5) listed above.

V – Documentation Required from Loan Recipient (Owner) and Contractor

The low, responsive, responsible bidder must forward the following items, in duplicate, to the loan recipient (owner) no later than 10 days after bid opening. The Loan Recipient (Owner) shall transmit one (1) copy of its DBE documentation of the prime contractor solicitation and one (1) copy of the prime contractor's/bidder's DBE documentation of all subcontractor solicitation to the SRF Section within 14 days after bid opening.

1. SRF project number and project name/loan name*. (*not contract name)
2. List of **all** subcontractors (**DBE and non-DBE**) with name, address, telephone number, estimated contract dollar amount and duration. If there are to be no subcontractors, please indicate such in a letter on company letterhead.
3. List of any subcontract work yet to be committed with estimate of dollar amount and duration of contract.
4. MBE-WBE (DBE) Documents - See **Part V, page SGC-6**.
5. Debarred Firms Certification – See **Part XIV, page SGC-25**.
6. Certification Regarding Equal Employment Opportunity – See **Part XIII, page SGC-24**.

The Loan Recipient (Owner) shall submit annual MBE/WBE Utilization Reports (EPA Form 5700-52A, **pages SGC-16 - SGC-17**) within 30 days of the end of the annual reporting period (**October 30th, i.e. by November 30th**). Submit reports directly to:

Diane Lockwood, DBE Coordinator
 Administrative Section
 Fiscal Branch
 Alabama Department of Environmental Management
 Post Office Box 301463
 Montgomery, Alabama 36130-1463

The proposed Prime Contractor must submit the following items to the Loan Recipient (Owner):

1) DBE Compliance Form. The Loan Recipient (Owner) must submit this information to the SRF Section to demonstrate compliance with the DBE requirements. ADEM's approval is required prior to award of the construction contract and commencement of any SRF-funded construction. **(Page SGC-8)**

2) Certification Regarding Equal Employment Opportunity. This form is required of the proposed prime contractor (re: all subcontracts executed) and should be submitted with the prime proposed contractor's MBE-WBE solicitation submittal to the Loan Recipient (Owner). **(Page SGC-24)**

3) Debarred Firms Certification. This form is required of the proposed prime contractor (re: all subcontracts executed) and should be submitted with the prime proposed contractor's MBE-WBE solicitation submittal to the Loan Recipient (Owner). **(Page SGC-25)**

4) EPA Form 6100-2 DBE Subcontractor Participation Form. This form gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from the proposed prime contractor, how much the DBE subcontractor was paid, and any other concerns the DBE subcontractor might have. The proposed prime contractor must provide this form to each DBE subcontractor for the DBE subcontractor's submittal to the SRF Section's MBE-WBE Compliance Staff (to be forwarded to EPA's DBE Coordinator). **(Page SGC-10)**

5) EPA Form 6100-3 DBE Subcontractor Performance Form. This form captures an intended DBE subcontractor's description of work to be performed for the proposed prime contractor and the price of the work. The proposed prime contractor must provide this form to each DBE subcontractor for the DBE subcontractor's submittal to the SRF Section's MBE-WBE Compliance Staff (to be forwarded to EPA's DBE Coordinator). **(Page SGC-12)**

6) EPA Form 6100-4 DBE Subcontractor Utilization Form. This form captures the proposed prime contractor's intended use of all identified DBE subcontractors and the estimated dollar amount of the work. The proposed prime contractor must provide this form to each DBE subcontractor for the DBE subcontractor's submittal to the SRF Section's MBE-WBE Compliance Staff (to be forwarded to EPA's DBE Coordinator). **(Page SGC-14)**

7) EPA Form 5700-52 A MBE/WBE Utilization Reports (DBE Annual Report), if applicable. The Loan Recipient (Owner) must submit this information to the SRF Section within 30 days of the end of the annual reporting period (October 30th), i.e., **by November 30th**. **(Pages SGC-16 - SGC-17)**

8) Changes to Approved DBE Compliance Form, if applicable. If any changes, substitutions, or additions are proposed to the subcontractors included in previous Department approvals, the Owner must submit this information to the Department for prior approval in order for the affected subcontract work to be eligible for SRF funding. **(Page SGC-23)**

9) Certified Payrolls. These should be submitted to the Loan Recipient (Owner), at least, monthly for the prime contractor and all subcontractors. The Loan Recipient (Owner) must maintain payroll records and make these available for inspection

Please note that DBEs, MBEs, and WBEs must be certified in writing by EPA, SBA, or DOT (or by state, local, Tribal, or private entities whose certification criteria match EPA's). Depending upon the certifying agency, a DBE may be classified as a Disadvantaged Business Enterprise (DBE), a Minority Business Enterprise (MBE), or a Women's Business Enterprise (WBE). Written certification as a DBE (MBE or WBE) is required in order to be counted toward the Loan Recipient/Owner's MBE-WBE accomplishments.

The documentation of these good faith solicitation efforts must be detailed in order to allow for satisfactory review. Such documentation might include fax confirmation sheets, copies of solicitation letters/emails, printouts of the online solicitations, printouts of online search results, affidavits of publication in newspapers, etc. The proposed prime contractor is strongly encouraged to follow up each written, fax, or email solicitation with, at least, 1 logged phone call.

The proposed prime contractor must employ the six affirmative steps to subcontract with DBEs, even if the proposed prime contractor has achieved its fair share objectives.

The prime contractor must employ the six affirmative steps to subcontract with DBEs, even if the proposed prime contractor has achieved its fair share objectives. If a DBE subcontractor fails to complete work under the subcontract for any reason, the proposed prime contractor must notify the Loan Recipient (Owner) in writing prior to any termination and must employ the six 'good faith efforts' described above if using a replacement subcontractor. Any proposed changes from an approved DBE subcontractor must be reported to the Loan Recipient (Owner) and to the SRF Section on the Changes to Approved Subcontractors Form prior to initiation of the action. EPA Forms Nos. 6100-3 and 6100-4 must also be submitted to the SRF Section for new DBE subcontracts.

-

VI – Resources for Identifying MBE-WBE (DBE) Contractors/Subcontractors

The following organizations may provide assistance in soliciting DBE participation:

City of Birmingham
Office of Economic
Development
ATTN: **Monique Shorts**,
Economic Specialist
710 20th Street North
Birmingham, Alabama
35203
Ph: (205) 254-2799
Fax: (205) 254-7741
Monique.shorts@birminghamal.gov

U.S. Small Business
Administration
<http://www.pro-net.sba.gov>

National Association
of Minority
Contractors (NAMC)
<https://namcatlanta.org/>

Alabama Department
of Transportation
ATTN: **John Huffman**
1409 Coliseum Boulevard
Montgomery, Alabama
36130
Ph: (334) 244-6261
<http://www.dot.state.al.us>

U.S. Department of
Commerce
Minority Business
Development Agency
ATTN: **Donna Ennis**
75 5th Street NW,
Suite 300
Atlanta, Georgia 30308
Ph: (404) 894-2096
<http://www.mbd.gov/>

Governor's Office of
Minority and Women's
Business Enterprises
Hilda Lockhart,
STEP Project Director
401 Adams Avenue
Suite 360
Montgomery, Alabama
36130
Ph: (334) 242-2220

Birmingham Construction
Industrial Authority ATTN:
Ashley Orl or **Kimberly
Bivins**
601 37th Street South
Birmingham, Alabama
35222
Ph: (205) 324-6202
aorl@bcia1.org
kbaylorbivins@bcia1.org

NOTE:

- (1) The Loan Recipient (Owner) and the proposed Prime Contractor shall use the necessary resources to identify and directly solicit no less than three (3) certified DBE/MBE/WBE companies to bid in each expected contract/subcontract area. If a diligent and documented search of ALDOT, SBA, and MBDA directories does not identify three (3) potential certified DBE/MBE/WBE firms, then the proposed Prime Contractor shall post an advertisement in, at least, one (1) of the other online or print resources. Whenever possible, post solicitation for bids or proposals should be posted/advertised for a minimum of 30 calendar days before the bid or proposal closing date.**
- (2) Expenditures to a DBE that acts merely as a broker or passive conduit of funds, without performing, managing, or supervising the work of its subcontract in a manner consistent with normal business practices may not be counted.**
- (3) The proposed Prime Contractor should attempt to identify and first solicit DBEs in the geographic proximity of the project before soliciting those located farther away.**
- (4) In addition, our SRF DBE Compliance Staff is readily available for assistance, as follows: Diane Lockwood (DBE Coordinator) at (334) 271-7815 or dpl@adem.alabama.gov.**

VII – DBE Compliance Form

NOTE: FOR DBE COMPLIANCE, ONE (1) COPY OF THIS FORM (WITH ALL INFORMATION OUTLINED) IS REQUIRED (WITH THE LOAN RECIPIENT (OWNER)'S DBE SUBMITTAL) FOR EACH PR&CS REVIEW. THE LOAN RECIPIENT (OWNER) AND PROPOSED PRIME CONTRACTOR SHOULD ENSURE THAT THIS INFORMATION IS COMPLETE PRIOR TO THE PR&CS SUBMITTAL TO THE SRF SECTION.

Loan Recipient: _____ SRF Loan (Project) Number: _____

CERTIFICATIONS:

I certify that the information submitted on and with this form is true and accurate and that this company has met and will continue to meet the conditions of this construction contract regarding DBE solicitation and utilization. I further certify that criteria used in selecting subcontractors and suppliers were applied equally to all potential participants and that EPA Forms 6100-2 and 6100-3 were distributed to all DBE subcontractors.

(Proposed Prime Contractor Signature) Date _____

(Printed Name and Title)

I certify that I have reviewed the information submitted on and with this form and that it meets the requirements of the Loan Recipient's/Owner's State Revolving Fund loan contract.

(Only ONE (1) signature required below.)**

(Signature of Loan Recipient (Owner)) Date _____

OR**

(Loan Recipient's (Owner's) Representative's Signature, (P.E.)) Date _____

(Printed Name and Title)

GENERAL INFORMATION:

Loan Recipient (Owner) Contact: _____

Loan Recipient (Owner) Phone Number/Email: _____

Consulting Engineer Contact: _____

Consulting Engineer Phone Number/Email: _____

Proposed Prime Contractor: _____

Proposed Prime Contractor Contact: _____

Proposed Prime Contractor Phone Number/Email: _____

Proposed Prime Contract Amount: \$ _____

Proposed Total DBE/MBE Participation: \$ _____ Percentage: _____ % Goal: 2.5%

Proposed Total WBE Participation: \$ _____ Percentage: _____ % Goal: 3.0%

Please ensure the following is submitted in the full DBE submittal (with the DBE COMPLIANCE FORM (page SGC-8)):

- (1) **List of all committed and uncommitted subcontractors** by trade, including company name, address, telephone number, contact person, dollar amount of subcontract, and DBE/MBE/WBE status. Indicate in writing if no solicitations were made because the contractor intends to use only its own forces to accomplish the work.
- (2) **Proof of certification (certificate or letter)** by EPA, SBA, DOT (or by state, local, Tribal, or private entities whose certification criteria match EPA's) for each subcontractor listed as a DBE, MBE, or WBE.
- (3) **Documentation of solicitation effort for prospective DBE firms**, such as fax confirmation sheets, copies of solicitation letters/emails, printout of the online solicitations, printouts of online search results, affidavits of publication in newspapers, etc. The prime contractor is strongly encouraged to follow up each written, fax, or email solicitation with at least 1 logged phone call. Whenever possible, post solicitation for bids or proposals should be for a minimum of 30 calendar days before the bid or proposal closing date.
- (4) **Justification for not selecting a certified DBE subcontractor** that submitted a low bid for any subcontract area.
- (5) **Certification By Proposed Prime Contractor or Subcontractor Regarding Equal Opportunity Employment. (Page SGC-24)**
- (6) **Debarred Firms Certification. (Page SGC-25)**
- (7) **EPA Form 6100-2 DBE Subcontractor Participation Form** for **each** proposed **certified** DBE subcontractor.* **(Page SGC-10)** (*This form is completed by the proposed prime contractor. It is signed by **each** proposed subcontractor **only**.)
- (8) **EPA Form 6100-3 DBE Subcontractor Performance Form** for each DBE subcontractor.** **(Page SGC-12)** (**This form is completed by the proposed prime contractor and signed by each proposed certified subcontractor and the proposed prime contractor per subcontract.)
- (9) **EPA Form 6100-4 DBE Subcontractor Utilization Form** to summarize all DBE subcontracts/subcontractors.*** **(Page SGC-14)** (***)This form is completed and signed by the proposed prime contractor **only**.)

NOTE:

ALL DBE contractors selected must have a current DBE certificate or letter of certification by an approved certifying agency.

Loan Recipient (Owner) DBE Submittal

At minimum, the Loan Recipient (Owner)'s DBE submittal should **always** consist of **a cover letter (preferred, but optional) and a VII - DBE Compliance Form (page SGC-8) and DBE solicitation documentation** (i.e., DBE solicitation list(s) with source(s) of list(s) clearly identified, contractor contact information and results/outcomes of each solicitation (or of the overall solicitation effort, if all results/outcomes were the same), documentation of solicitation method (i.e., copies of emails, phone logs, faxes, etc.).

Prime Contractor DBE Submittal

At minimum, the Prime Contractor's DBE submittal should **always** consist of **a cover letter (preferred, but optional) and DBE solicitation documentation** (i.e., DBE solicitation list(s) with source(s) of list(s) clearly identified, subcontractor contact information and results/outcomes of each solicitation (or of the overall solicitation effort, if all results/outcomes were the same), documentation of solicitation method (i.e., copies of emails, phone logs, faxes, etc.) **OR** a "No Subcontractors" Letter (if none will be utilized) **and** a List of **ALL (DBE/non-DBE) subcontractors contracted/yet to be contracted and ALL EPA 6100 Forms described above (DBE subcontractors selected or not) and** Certification Regarding Equal Employment Opportunity **and** Debarred Firms Certification.

VIII - EPA Form 6100-2 DBE Subcontractor Participation Form



OMB Control No: 2090-0030

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Participation Form

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE¹ subcontractor² the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Amount Received by Prime Contractor

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

EPA FORM 6100-2 (DBE Subcontractor Participation Form)

IX - EPA Form 6100-3 DBE Subcontractor Performance Form



OMB Control No: 2090-0030

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Performance Form

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: <input type="radio"/> DOT <input type="radio"/> SBA <input type="radio"/> Other: _____		Meets/ exceeds EPA certification standards? <input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

IX - EPA Form 6100-3 DBE Subcontractor Performance Form



OMB Control No: 2090-0030

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

X - EPA Form 6100-4 DBE Subcontractor Utilization Form



OMB Control No: 2090-0030

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Issuing/Funding Entity:			

I have identified potential DBE certified subcontractors	<input type="radio"/> YES	<input checked="" type="radio"/> NO	
If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?

Continue on back if needed

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

X - EPA Form 6100-4 DBE Subcontractor Utilization Form



OMB Control No: 2090-0030

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Utilization Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



**U.S. ENVIRONMENTAL PROTECTION AGENCY
MBE/WBE UTILIZATION UNDER FEDERAL GRANTS
AND COOPERATIVE AGREEMENTS**

**PART I OF II
(PAGES SGC-16 & SGC-17)**

**FOR COOPERATIVE AGREEMENTS OR OTHER FEDERAL FINANCIAL ASSISTANCE WHERE THE COMBINED TOTAL OF FUNDS BUDGETED FOR PROCURING SUPPLIES, EQUIPMENT, CONSTRUCTION OR SERVICES EXCEED \$150,000.
PART 1: PLEASE REVIEW INSTRUCTIONS BEFORE COMPLETING**

1A. FEDERAL FISCAL YEAR (Oct 1- Sep 30) 20____		1B. REPORT TYPE <input type="checkbox"/> Annual <input type="checkbox"/> Last Report (Project completed)			
1C. REVISION OF A PRIOR YEAR REPORT? <input type="radio"/> No <input type="radio"/> Yes, Year _____ IF YES, BRIEFLY DESCRIBE THE REVISIONS YOU ARE MAKING:					
2A. EPA FINANCIAL ASSISTANCE OFFICE ADDRESS (ATTN: DBE COORDINATOR)		3A. RECIPIENT NAME AND ADDRESS			
2B. EPA DBE COORDINATOR Name: Email: Phone: Fax:		3B. RECIPIENT REPORTING CONTACT Name: Address: Phone: Email:			
4A. FINANCIAL ASSISTANCE AGREEMENT ID NUMBER (SRF State Recipients, refer to Instructions for Completion of blocks 4A, 5A and 5C)		4B. FEDERAL FINANCIAL ASSISTANCE PROGRAM TITLE OR CFDA NUMBER:			
5A. TOTAL ASSISTANCE AGREEMENT AMOUNT EPA Share: \$ _____ Recipient Share: \$ _____ <input type="checkbox"/> N/A (SRF Recipient)/Loan Amount: \$ _____		5B. If NO procurements and NO accomplishments were made this reporting period (by the recipients, sub-recipients, loan recipients, and prime contractors), CHECK and SKIP to Block No. 7. (Procurements are all expenditures through contract, order, purchase, lease or barter of supplies, equipment, construction, or services needed to complete Federal assistance programs. Accomplishments, in this context, are procurements made with MBEs and/or WBEs.) <input type="checkbox"/>			
5C. Total Procurements This Reporting Period (Only include amount not reported in any prior reporting period) Total Procurement Amount \$ _____ (Include total dollar values awarded by recipient, sub-recipients and SRF loan recipients, including MBE/WBE expenditures.)					
5D. Were sub-awards issued under this assistance agreement? Yes <input type="radio"/> No <input type="radio"/> Were contracts issued under this assistance agreement? Yes <input type="radio"/> No <input type="radio"/>					
5E. MBE/WBE Accomplishments This Reporting Period Actual MBE/WBE Procurement Accomplished (Include total dollar values awarded by recipient, sub-recipients, SRF loan recipients and Prime Contractors.)					
	Construction	Equipment	Services	Supplies	Total
\$MBE:	_____	_____	_____	_____	0.00
\$WBE:	_____	_____	_____	_____	0.00
6. COMMENTS: (If no MBE/WBE procurements, please summarize how certified MBEs/WBEs were notified of the opportunities to compete for the procurement dollars entered in Block 5C and why certified MBEs /WBEs were not awarded any procurements during this reporting period.)					
7. NAME OF RECIPIENT'S AUTHORIZED REPRESENTATIVE			TITLE		
8. SIGNATURE OF RECIPIENT'S AUTHORIZED REPRESENTATIVE			DATE		

EPA FORM 5700-52A available electronically at https://www.epa.gov/sites/production/files/2014-09/documents/epa_form_5700_52a.pdf

If reporting DBE procurement, please enter the Loan Project Number and the information in the grid below, as applicable.
 If no additional DBE procurement to report, please enter the Loan Project Number and enter 'N/A' in the black box below.

PART II.

MBE/WBE PROCUREMENTS MADE DURING REPORTING PERIOD

PART II OF II
 (PAGES SGC-16 & SGC-17)

SRF Financial Assistance Agreement Number:

1. Procurement Made By Recipient Sub-Recipient and/or SRF Loan Recipient	2. Business Enterprise		3. \$ Value of Procurement	4. Date of Procurement MM/DD/YY	5. Type of Product or Service (Enter Code)	6. Name/Address/Phone Number of MBE/WBE Contractor or Vendor
	Minority	Women				

Type of Product or Service Codes: 1 = Construction 2 = Supplies 3 = Services 4 = Equipment

Note: Recipients are required to submit MBE/WBE reports to EPA beginning with the Federal fiscal year the recipients receive the award, continuing until the project is completed.

Instructions:

A. General Instructions:

MBE/WBE utilization is based on 40 CFR Part 33. The reporting requirement reflects the class deviation issued on November 8, 2013, clarified on January 9, 2014 and modified on December 2, 2014. EPA Form 5700-52A must be completed annually by recipients of financial assistance agreements where the combined total of funds budgeted for procuring supplies, equipment, construction or services exceeds \$150,000. This reporting requirement applies to all new and existing awards and voids all previous reporting requirements.

In determining whether the \$150,000 threshold is exceeded for a particular assistance agreement, the analysis must focus on funds budgeted for procurement under the supplies, equipment, construction, services or "other" categories, and include funds budgeted for procurement under sub-awards or loans

Reporting will also be required in cases where the details of the budgets of sub-awards/loans are not clear at the time of the grant awards and the combined total of the procurement and sub-awards and/or loans exceeds the \$150,000 threshold.

When reporting is required, all procurement actions are reportable, not just the portion which exceeds \$150,000.

If at the time of award the budgeted funds exceed \$150,000 but actual expenditures fall below, a report is still required.

If at the time of award, the combined total of funds budgeted for procurements in any category is less than or equal to \$150,000 and is maintained below the threshold, no DBE report is required to be submitted.

Recipients are required to report 30 days after the end of each federal year, per the terms and conditions of the financial assistance agreement.

Last reports are due October 30th or 90 days after the end of the project period, whichever comes first.

MBE/WBE program requirements, including reporting, are material terms and conditions of the financial assistance agreement.

B. Definitions:

Procurement is the acquisition through contract, order, purchase, lease or barter of supplies, equipment, construction or services needed to accomplish Federal assistance programs.

A **contract** is a written agreement between an EPA recipient and another party (also considered "prime contracts") and any lower tier agreement (also considered "subcontracts") for equipment, services, supplies, or construction necessary to complete the project. This definition excludes written agreements with another public agency. This definition includes personal and professional services, agreements with consultants, and purchase orders.

A **minority business enterprise (MBE)** is a business concern that is (1) at least 51 percent owned by one or more minority individuals, or, in the case of a publicly owned business, at least 51 percent of the stock is owned by one or more minority

individuals; and (2) whose daily business operations are managed and directed by one or more of the minority owners. In order to qualify and participate as an MBE prime or subcontractor for EPA recipients under EPA's DBE Program, an entity must be properly certified as required by 40 CFR Part 33, Subpart B.

U.S. citizenship is required. Recipients shall presume that minority individuals include Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, or other groups whose members are found to be disadvantaged by the Small Business Act or by the Secretary of Commerce under section 5 of Executive order 11625. The reporting contact at EPA can provide additional information.

A **woman business enterprise (WBE)** is a business concern that is, (1) at least 51 percent owned by one or more women, or, in the case of a publicly owned business, at least 51 percent of the stock is owned by one or more women and (2) whose daily business operations are managed and directed by one or more of the women owners. In order to qualify and participate as a WBE prime or subcontractor for EPA recipients under EPA's DBE Program, an entity must be properly certified as required by 40 CFR Part 33, Subpart B.

Business firms which are 51 percent owned by minorities or women, but are in fact not managed and operated by minorities or females do not qualify for meeting MBE/WBE procurement goals. U.S. Citizenship is required.

Good Faith Efforts

A recipient is required to make the following good faith efforts whenever procuring construction, equipment, services, and supplies under an EPA financial assistance agreement. These good faith

efforts for utilizing MBEs and WBEs must be documented. Such documentation is subject to EPA review upon request:

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.
6. If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

C. Instructions for Part I:

1A. Specify Federal fiscal year this report covers. The Federal fiscal year runs from October 1st through September 30th (**e.g. November 29, 2014 falls within Federal fiscal year 2015**)

1B. Specify report type. Check the annual reporting box. Also indicate if the project is completed.

1C. Indicate if this is a revision to a previous year and provide a brief description of the revision you are making.

2A-B. Please refer to your financial assistance agreement for the mailing address of the EPA financial assistance office for your agreement.

The "EPA DBE Reporting Contact" is the DBE Coordinator for the EPA Region from which your financial assistance agreement was originated. For a list of DBE Coordinators please refer to the EPA OSBP website at http://epa.gov/osbp/dbe_cord.

3A-B. Identify the agency, state authority, university or other organization which is the recipient of the Federal financial assistance and the person to contact concerning this report.

4A. Provide the Assistance Agreement number assigned by EPA. A separate report must be submitted for each Assistance Agreement.

***For SRF recipients:** In box 4a list numbers for ALL OPEN Assistance Agreements being reported on this form.

4B. Refer back to Assistance Agreement document for this information.

5A. Provide the total amount of the Assistance Agreement which includes Federal funds plus recipient matching funds and funds from other sources.

***For SRF recipients only:** SRF recipients will not enter an amount in 5a. SRF recipients should check the "N/A" box.

5B. Self-explanatory.

5C. Provide the total dollar amount of **ALL** procurements awarded this reporting period by the recipient, sub-recipients, and SRF loan recipients, **including** MBE/WBE expenditures, not just the portion which exceeds \$150,000. For example: Actual dollars for procurement from the procuring office; actual contracts let from the contracts office; actual goods, services, supplies, etc., from other sources including the central purchasing/ procurement centers).

***NOTE:** To prevent double counting on line 5C, if any amount on 5E is for a subcontract and the prime contract has already been included on Line 5C in a prior reporting period, then report the amount going to MBE or WBE subcontractor on line 5E, but exclude the amount from Line 5C. To include the amount on 5C again would result in double counting because the prime contract, which includes the subcontract, would have already been reported.

***For SRF recipients only:** In 5c please enter the total annual procurement amount under all of your SRF Assistance Agreements. The figure reported in this section is **not** directly tied to an individual Assistance Agreement identification number. (**SRF state recipients report state procurements in this section**)

5D. State whether or not sub-awards and/or subcontracts have been issued under the financial assistance agreements by indicating “yes” or “no”.

5E. Where requested, also provide the total dollar amount of all MBE/WBE procurement awarded during this reporting period by the recipient, sub-recipients, SRF loan recipients, and prime contractors in the categories of construction, equipment, services and supplies. These amounts include Federal funds plus recipient matching funds and funds from other sources.

6. If there were no MBE/WBE accomplishments this reporting period, please briefly how certified MBEs/WBEs were notified of the opportunities to compete for the procurement dollars entered in Block 5C and why certified MBEs /WBEs were not awarded any procurements during this reporting period.

7. Name and title of official administrator or designated reporting official.

8. Signature, month, day, and year report submitted.

D. Instructions for Part II:

For each MBE/WBE procurement made under this financial assistance agreements during the reporting period, provide the following information:

1. Check whether this procurement was made by the recipient, sub-recipient/SRF loan recipient, or the prime contractor.

2. Check either the MBE or WBE column. If a firm is both an MBE and WBE, the recipient may choose to count the entire procurement towards EITHER its MBE or WBE accomplishments. The recipient may also divide the total amount of the procurement (using any ratio it so chooses) and count those divided amounts toward its MBE and WBE accomplishments. If the recipient chooses to divide the procurement amount and count portions toward its MBE and WBE accomplishments, please state the appropriate amounts under the MBE and WBE columns on the form. **The combined MBE and WBE amounts for that MBE/WBE contractor must not exceed the “Value of the Procurement” reported in column #3**

3. Dollar value of procurement.

4. Date of procurement, shown as month, day, year. Date of procurement is defined as the date the contract or procurement was awarded, **not** the date the contractor received payment under the awarded contract or procurement, unless payment occurred on the date of award. **(Where direct purchasing is the procurement method, the date of procurement is the date the purchase was made)**

5. Using codes at the bottom of the form, identify type of product or service acquired through this procurement (e.g., enter 1 if construction, 2 if supplies, etc.).

6. Name, address, and telephone number of MBE/WBE firm.

**This data is requested to comply with provisions mandated by: statute or regulations (40 CFR Parts 30, 31, and 33 and/or 2 CFR Parts 200 and 1500); OMB Circulars; or added by EPA to ensure sound and effective assistance management. Accurate, complete data are required to obtain funding, while no pledge of confidentiality is provided.

The public reporting and recording burden for this collection of information is estimated to average 1 hour per response annually. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclosure or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPE Regulatory Information Division, U.S. Environmental Protection Agency (2136), 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Include the OMB Control number in any correspondence. Do not send the completed form to this address.

XII – Changes to Approved DBE Compliance Form

NOTE: THIS FORM IS REQUIRED OF THE LOAN RECIPIENT (OWNER) (WITH THE PRIME CONTRACTOR'S INPUT) FOR DBE COMPLIANCE ONLY IF A SUBCONTRACTOR/SUPPLIER/VENDOR IS SOUGHT AND/OR PROCURED AFTER THE CONTRACT ATA (APPROVAL-TO-AWARD) HAS BEEN ISSUED. IT IS SIMILAR TO THE DBE COMPLIANCE FORM (PAGE SGC-8) IN THAT IT IS THE COVER/SUMMARY FORM USED TO DOCUMENT THE ADDITIONAL DBE SOLICITATION AND/OR REVISE THE ORIGINAL DBE APPROVAL STATUS.

Loan Recipient: _____ Loan (Project) Number: _____

CERTIFICATIONS:

I certify that the information submitted on and with this form is true and accurate and that this company has met and will continue to meet the conditions of this construction contract regarding DBE solicitation and utilization. I further certify that criteria used in selecting subcontractors and suppliers were applied equally to all potential participants and that EPA Forms 6100-2 and 6100-3 were distributed to all DBE subcontractors.

(Prime Contractor Signature) Date _____

(Printed Name and Title)

*I certify that I have reviewed the information submitted on and with this form and that it meets the requirements of the Loan Recipient's/Owner's State Revolving Fund loan contract. (*Only ONE (1) signature required below.)*

(Signature of Loan Recipient (Owner)) Date _____

OR*

(Loan Recipient's (Owner's) Representative's Signature, (P.E.)) Date _____

(Printed Name and Title)

GENERAL INFORMATION: (Please attach additional pages to address 1 through 5, as needed.)

- (1) If an approved subcontractor is terminated or replaced, please identify this company and briefly state the reason.
- (2) For new or additional subcontractors, list name, trade, address, telephone number, contact person, dollar amount of subcontract and DBE status.
- (3) Attach proof of certification by EPA, SBA, DOT (or by state, local, Tribal or private entities whose certification criteria match EPA's) for each subcontractor listed as a DBE, MBE or WBE.
- (4) Attach documentation of solicitation effort for prospective DBE firms, such as fax confirmation sheets, copies of solicitation letters/emails, printouts of the online solicitations, printouts of online search results, affidavits of publication in newspapers, etc. The prime contractor is strongly encouraged to follow up each solicitation with, at least, one (1) logged phone call. Whenever possible, post solicitation for bids or proposals should be for a minimum of 30 calendar days before the bid or proposal closing date.
- (5) Provide justification for not selecting a certified DBE subcontractor that submitted a low bid for any subcontract area.

XIII – Certification Regarding Equal Employment Opportunity

The prime contractor is required to comply with Executive Order 112-46 of September 24, 1965 entitled "Equal Employment Opportunity" as amended by Executive Order 11375 of October 13, 1967.

The contract for the work under this proposal will obligate the prime contractor and its subcontractors not to discriminate in employment practices.

The prime contractor shall not maintain or provide for his/her employees the facilities, which are segregated on a basis of race, creed, color or national origin, whether such facilities are segregated by directive or on a de facto basis.

The prime contractor must, if requested, submit a compliance report concerning their employment practices and policies in order to maintain his/her eligibility to receive the award of the contract.

The prime contractor must be prepared to comply in all respects with any contract provisions regarding non-discrimination stipulated in conjunction with labor standards.

PRIME CONTRACTOR'S CERTIFICATION:

Prime Contractor's Name: _____

Address: _____

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause. Yes ___ No ___
2. Compliance Reports were required to be filed in connection with such contract or subcontract. Yes ___ No ___
3. Bidder has filed all compliance reports due under applicable contract requirements. Yes ___ No ___

If answer to item 3 is "No", please explain in detail on reverse side of this certification.

Certification - The information above is true and complete to the best of my knowledge and belief.

Signature of Prime Contractor: _____

Title: _____

Date: _____

XIV – Debarred Firms Certification

All prime construction contractors shall certify that Subcontracts have not and will not be awarded to any firm that is currently on the General Service Administration's Master List of Debarred, Suspended and Voluntarily Excluded Persons, in accordance with the provisions of ADEM Administrative Code 335-6-14-.35. Debarment action is taken against a firm for noncompliance with Federal Law.

All bidders shall complete this certification in duplicate and submit both copies to the Loan Recipient (Owner) with the bid proposal. The Loan Recipient (Owner) shall transmit one copy to the SRF Section within 14 days after the bid opening.

Project Name/Loan Name*:

(*not **Contract** Name)

SRF Project No.:

The undersigned hereby certifies that the firm of _____
_____ has not and will not award a subcontract, in connection with any contract awarded to it as the result of this bid, to any firm that is currently on the General Service Administration's Master List of Debarred, Suspended, and Voluntarily Excluded Persons.

Signature of Prime Contractor:

Title:

Date:

XV – Davis-Bacon and Related Acts

Labor Standards Provisions for Federally Assisted Contracts

Wage Rate Requirements Under FY 2013 Continuing Appropriation

I. Requirements under the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6) For Subrecipients That Are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Continuing Resolution with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. If a State recipient needs guidance, the recipient may contact Cynthia Y. Edwards at Edwards.Cynthiay@epa.gov or at 404-562-9340 of EPA, Region 4 Grants and SRF Management Section, for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/whd/>

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Continuing Resolution, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract Subcontract Provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2010 appropriation , the following clauses:

(1) Minimum wages.

(i) 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 regulations issued 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 equivalents 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 such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) 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 § 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 paragraph (a)(1)(ii) 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 be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, 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 State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, 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.

(iii) 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.

(iv) 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.

(2) Withholding.

The subrecipient(s), shall upon written request of the EPA Award Official or 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 Davis-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 the work, all or part of the wages required by the contract, the (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 until such violations have ceased.

(3) Payrolls and basic records.

(i) 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 correct 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 section 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 is financially responsible, and 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 cost 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.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <https://www.dol.gov/agencies/whd/forms/wh347> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) 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:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or 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;

(3) 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.

(C) 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 (a)(3)(ii)(B) of this section.

(D) 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.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA 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 or State 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.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed 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, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, 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 Office of Apprenticeship Training, Employer and Labor Services 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 at 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 Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, 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.

(ii) 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 and Training Administration. The ratio of trainees 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. Trainees 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 trainee 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. 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.

(iii) 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.

(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.

(6) Subcontracts.

The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, 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 5.5.

(7) Contract termination: debarment.

A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) 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.

(9) 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 Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) 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).

(ii) 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).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(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 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 laborer 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.

(2) Violation; liability for unpaid wages; liquidated damages.

In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and 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 (a)(1) of this section, 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 (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages.

The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys 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 (b)(2) of this section.

(4) Subcontracts.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors 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 (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information

indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract . Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <https://www.dol.gov/agencies/whd/contact/local-offices>.

(Insert applicable wage rate determination here.)

Wage Rates are county specific for *Heavy Construction* and can be found at:
<https://sam.gov/content/wage-determinations>

XVI – American Iron and Steel Requirement

Section 4.13 Compliance with 2014 Appropriations Act. (a) The Loan Recipient agrees to comply with all federal requirements applicable to the Authority Loan (including those imposed by P.L. 113-76, Consolidated Appropriations Act (the "2014 Appropriations Act") and related SRF Policy Guidelines) which the Loan Recipient understands includes, among other things, requirements that all of the iron and steel products used in the Project are to be produced in the United States ("American Iron and Steel") unless (i) the Loan Recipient has requested and obtained a waiver from the U.S. Environmental Protection Agency pertaining to the Project or (ii) the Authority has otherwise advised the Loan Recipient in writing that the Buy American Requirement is not applicable to the Project. .

(b) The Loan Recipient also agrees to comply with all recordkeeping and reporting requirements under the Clean Water Act (codified generally under 33 U.S.C. §1251 et seq.) (the "Clean Water Act"), including any reports required by a federal agency or the Authority such as performance indicators of program deliverables, information on costs and Project progress. The Loan Recipient understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities, and (ii) failure to comply with the Clean Water Act and this Agreement may be an Event of Default hereunder that results in a repayment of the Authority Loan in advance of the maturity of the Evidence of Indebtedness and/or other remedial actions.

The Loan Recipient agrees to cause all contractors and subcontractors to comply with (through the inclusion of appropriate terms and conditions in all contracts, subcontracts and lower tiered transactions, such terms and conditions to be in substantially the form set forth in connection with the development and construction of the project

The Contractor acknowledges to and for the benefit of the _____, Alabama ("Purchaser"), and the Alabama Water Pollution Control Authority or the Drinking Water Finance Authority (the "State Authority") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel") including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State Authority that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State Authority or any damages owed to the State Authority by the Purchaser). While the Contractor has no direct contractual privity with the State Authority, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State Authority.

XVII – Build America, Buy America (BABA) Requirement




Comply with all federal requirements applicable to the assistance received (including those imposed by the Infrastructure Investment and Jobs Act (“IIJA”), Public Law No. 117-58) which the Participant understands includes, but is not limited to, the following requirements: that all of the iron and steel, manufactured products, and construction materials used in the Project are to be produced in the United States (“Build America, Buy America Requirements”) unless (i) the Participant has requested and obtained a waiver from the cognizant Agency[1] pertaining to the Project or the Project is otherwise covered by a general applicability waiver; or (ii) all of the contributing Agencies have otherwise advised the Participant in writing that the Build America, Buy America Requirements are not applicable to the Project. Comply with all record keeping and reporting requirements under all applicable legal authorities, including any reports required by the funding authority (such as EPA and/or a state), such as performance indicators of program deliverables, information on costs and project progress. The Participant understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities and (ii) failure to comply with the applicable legal requirements and this Agreement may result in a default hereunder that results in a repayment of the assistance agreement in advance of the maturity of the Bonds, termination and/or repayment of grants, cooperative agreements, direct assistance or other types of financial assistance, and/or other remedial actions.

ALL CONSTRUCTION CONTRACTS MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE BABA REQUIREMENTS. The loan recipient agrees to cause all contractors and subcontractors to comply with (through the inclusion of appropriate terms and conditions in all contracts, subcontracts, and lower tiered transactions) such terms and conditions to be in substantially the form set forth in connection with the development and construction of the project.

The Contractor acknowledges to and for the benefit of the _____ (“Owner”) and the _____ (the “Funding Authority”) that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as “Build America, Buy America;” that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States (“Build America, Buy America Requirements”) including iron and steel, manufactured products, and construction materials provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part,

from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.




XVIII – Project Sign Detail - CWSRF

 <p>ADEM Alabama Department of Environmental Management</p>	<p>STATE OF ALABAMA Honorable (name), Governor</p>	
<p>ALABAMA WATER POLLUTION CONTROL AUTHORITY POLLUTION CONTROL PROJECT</p>		
<p>(NAME OF OWNER) (NAME OF PROJECT)</p>		
<p>\$(Project/Contract Amount) STATE REVOLVING FUND LOAN</p>		
<p>(NAME OF CONTRACTOR) • CONTRACTOR (NAME OF ENGINEER) • CONSULTING ENGINEER</p>		
<p>ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT U.S. ENVIRONMENTAL PROTECTION AGENCY</p>		
		

[Two vertical rectangular posts are shown below the sign area, one on the left and one on the right.]

1. Sign is to be constructed of ½” MDO plywood, 4’ x 8’. Alternate materials may be used if approved by ADEM prior to use.
2. Paint with two (2) coats oil-base enamel before lettering.
3. Background color white; lettering black.
4. Lettering may be painted or vinyl. All lettering sizes to be proportionate to sign layout.
5. Sign shall be attached to 4” x 4” x 8’ treated posts. Alternatives may be used if approved by ADEM prior to use.
6. Sign shall be placed in prominent location, easily readable from existing street or roadway.
7. Sign shall be maintained in good condition until completion of project.

XIX – Project Sign Detail - DWSRF

 ADEM Alabama Department of Environmental Management	STATE OF ALABAMA Honorable (Name), Governor	
ALABAMA DRINKING WATER FINANCE AUTHORITY INFRASTRUCTURE PROJECT		
(NAME OF OWNER) (PROJECT OR CONTRACT NAME)		
\$(Project/Contract Amount) STATE REVOLVING FUND LOAN		
(NAME OF CONTRACTOR) • CONTRACTOR (NAME OF ENGINEER) • CONSULTING ENGINEER		
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT U.S. ENVIRONMENTAL PROTECTION AGENCY		

| |

1. Sign is to be constructed of ½” MDO plywood, 4’ x 8’. Alternate materials may be used if approved by ADEM prior to use.
2. Paint with two (2) coats oil-base enamel before lettering.
3. Background color white; lettering black.
4. Lettering may be painted or vinyl. All lettering sizes to be proportionate to sign layout.
5. Sign shall be attached to 4” x 4” x 8’ treated posts. Alternatives may be used if approved by ADEM prior to use.
6. Sign shall be placed in prominent location, easily readable from existing street or roadway.
7. Sign shall be maintained in good condition until completion of project.

XX – Construction Contract Requirements

This checklist is to be completed by the Loan Recipient (Owner)/Engineer when submitting plans and specifications to the SRF Section for review. It affirms to the SRF reviewer that the Loan Recipient (Owner)/Engineer has addressed these items (in boilerplate form) within the specifications manual.

Contract Page No.	Satisfied Yes/No	
_____	_____	Bid Advertisement (including date, time, and location of bid opening).
_____	_____	Bid Bond.
_____	_____	Performance Bond (100%).
_____	_____	Payment Bond (Not less than 50%).
_____	_____	Contract Length.
_____	_____	Liquidated Damages.
_____	_____	Liability Insurance (including workman's comp, public liability, and builder's risk, if applicable).
_____	_____	Method of Award (i.e. lowest, responsive, responsible bidder).
_____	_____	Air testing of gravity sewers (if applicable).

Within 14 days after the bid opening, the Loan Recipient (Owner)/Engineer is to prepare the Project Review and Cost Summary (per the **PR&CS Checklist, page SGC-39**) and submit it to the SRF Section of ADEM. Upon completion of review, a written ATA (Approval-to-Award) will be issued.

NOTE:

The Loan Recipient (Owner) assumes all financial risk, if the construction contract is awarded prior to the issuance of an ATA letter by the SRF Section.

XXI – Project Review and Cost Summary

<h2 style="margin: 0;">ADEM</h2> <p style="font-size: small; margin: 0;">Alabama Department of Environmental Management</p>	<h2 style="margin: 0;">SRF Project Review and Cost Summary</h2>	Form Revised 07-2021
<p>This form is to be completed and submitted (with supporting documentation) to the SRF Section <u>within 14 days after bid opening</u>. Following satisfactory review, an ATA (Approval-to-Award) letter will be issued. After the ATA is issued/award of the contract, a pre-construction conference should be scheduled (with the SRF Project Manager in attendance). <u>A complete, bound set of the executed contract documents manual should be forwarded to the SRF Section for review and written approval following the pre-construction conference.</u></p>		
<p>Loan Recipient: _____ Project Number: _____</p> <p>Project Name: _____</p> <p>Contract Number: _____ Contract Name: _____</p>		
<p>1. Date of plans and specifications concurrence letter from ADEM-SRF Section: _____</p> <p style="padding-left: 40px;">Date of construction permit issuance from ADEM-DW Branch: _____</p>		
<p>2. Attach copies of the following documents:</p>		
<p>___ a. Bid advertisement with certification by publisher and date(s) of publication.</p> <p>___ b. Certified bid tabulation.</p> <p>___ c. Proposal of the selected bidder.</p> <p>___ d. Bid bond.</p> <p>___ e. Engineer’s letter to the loan recipient recommending award of the contract. If the award is made to other than the low bidder, provide justification.</p> <p>___ f. Site certificates for the project, if not previously submitted with the SRF loan application.</p> <p>___ g. <u>DBE Documentation from the loan recipient (owner) and the prime contractor.</u> Utilization, solicitation and documentation requirements (with a list of required documents) are discussed in detail in Parts III - V (pages SGC-3 - SGC-23) of the ADEM <i>SRF Supplemental General Conditions</i> for SRF Assisted Public Drinking Water and Wastewater Facilities Construction Contracts.</p> <p>___ h. Copy of the wage determination used in bidding.</p> <p>___ i. Any addenda that have been issued after ADEM review of the plans and specifications.</p>		
<p>Comments:</p> <p>_____</p> <p>_____</p>		

Infrastructure Investment and Jobs Act (IIJA) “BIL” Signage Required Term and Condition

This Term & Condition applies to construction projects funded in whole or in part by the Infrastructure Investment and Jobs Act (IIJA) for the following programs: Clean Water State Revolving Fund (CWSRF), Drinking Water State Revolving Fund (DWSRF).

The recipient shall comply with the requirements for signage as outlined below and in the Infrastructure Investment and Jobs Act (IIJA) guidance. The IIJA sign should be constructed in addition to the State Revolving Fund sign outlined in the Supplemental General Conditions.

1. Signage Requirements

- a. Building A Better America Emblem: The recipient will ensure that a sign is placed at construction sites supported under this award displaying the official Building A Better America emblem and must identify the project as a “project funded by President Biden’s Bipartisan Infrastructure Law.” Construction is defined at 40 CFR 33.103 as “erection, alteration, or repair (including dredging, excavating, and painting) of buildings, structures, or other improvements to real property, and activities in response to a release or a threat of a release of a hazardous substance into the environment, or activities to prevent the introduction of a hazardous substance into a water supply.” The sign must be placed at construction sites in an easily visible location that can be directly linked to the work taking place and must be maintained in good condition throughout the construction period.

The recipient will ensure compliance with the guidelines and design specifications for using the official Building A Better America emblem and corresponding logomark available at: <https://www.whitehouse.gov/wp-content/uploads/2022/08/Building-A-Better-America-Brand-Guide.pdf>

- b. EPA Logo: The recipient will ensure that signage displays the EPA logo along with the official Building A Better America emblem. The EPA logo must not be displayed in a manner that implies that EPA itself is conducting the project. Instead, the EPA logo must be accompanied with a statement indicating that the recipient received financial assistance from EPA for the project.

The recipient will ensure compliance with the sign specifications provided by the EPA Office of Public Affairs (OPA) available at: <https://www.epa.gov/grants/epa-logo-seal-specifications-signage-produced-epa-assistance-agreement-recipients>. As provided in the sign specifications from OPA, the EPA logo is the preferred identifier for assistance agreement projects and use of the EPA seal requires prior approval from the EPA. To obtain the appropriate EPA logo or seal graphic file, the recipient should send a request directly to OPA and include the EPA Project Officer in the communication. Instructions for contacting OPA is available on the [Using the EPA Seal and Logo page](#).

- c. Procuring Signs: Consistent with section 6002 of RCRA, 42 U.S.C. 6962, and 2 CFR 200.323, recipients are encouraged to use recycled or recovered materials when procuring signs. Signage costs are considered an allowable cost under this assistance agreement provided that the costs associated with signage are reasonable. Additionally, to increase public awareness of projects serving communities where English is not the predominant language, recipients are encouraged to translate the language on signs (excluding the official Building A Better America emblem or EPA logo or seal) into the appropriate non-English language(s). The costs of such translation are allowable, provided the costs are reasonable.

2. Public or Media Events

EPA encourages the recipient to notify the EPA Project Officer listed in this award document of public or media events publicizing the accomplishment of significant events related to construction projects as a result of this agreement and provide the opportunity for attendance and participation by federal representatives with at least ten (10) working days' notice.

Appendix A: Guidance Documentation

===== PRESIDENT JOE BIDEN =====

BUILDING A BETTER AMERICA

===== BUILD.GOV =====

THE BIPARTISAN INFRASTRUCTURE LAW

Project Funding Source Sign Assembly

BUILDING A BETTER AMERICA SIGNAGE GUIDELINES

Guidelines for Logo Applications

The purpose of this document is to provide general guidelines for signs displayed at project sites for projects funded under the Bipartisan Infrastructure Law, also known as the Infrastructure Investment and Jobs Act.

The first part of this document pertains to signs for projects funded under the Bipartisan Infrastructure Law that are not installed in the highway right-of-way. For highway signage guidance that is MUTCD compliant please see pages 10 and 11.

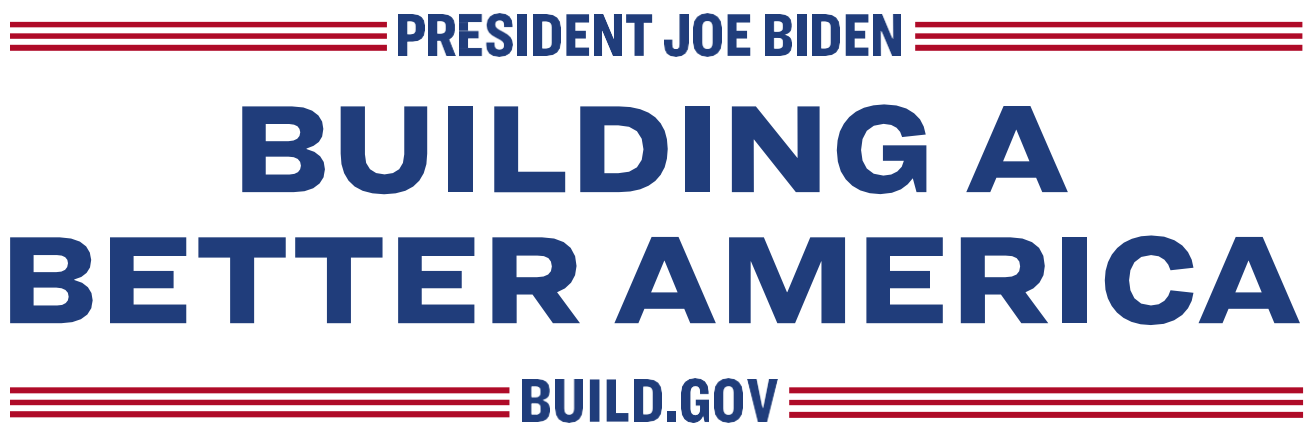
For all other signs please start here.

This document provides information about the Building A Better American logo mark as well as how logos, marks and seals of state, cities and counties can be incorporated into signage. Logos of contractors are not permitted on the signage. When logos are included in signage, the placement should conform to the brand guideline.




Variations and Usage

There is one approved mark associated with the Building A Better America logo. To preserve the integrity of the Building A Better America logo mark, make sure to apply them correctly. Altering, distorting, or recreating the 'marks' in any way weakens the power of the image and what it represents.

Layout and design of signs and communication materials will vary, so care must be taken when applying the logo mark.



The colors, graphics and fonts used should conform to graphic standards.

COLOR	CMYK	RGB	HEX P	MS
 Blue	83,48,0,48	22 / 68 / 132	#164484	PMS7687C
 Red	0,100,81,0	255/0/49	#FF0031	PMS185C
 White	2,2,0, 3	242 /244/248	#F2F4F8	Bright White

Logos

PROJECT FUNDED BY

The Bipartisan Infrastructure Law

PROJECT FUNDED BY

The Bipartisan Infrastructure Law



**U.S. Department
of Transportation**

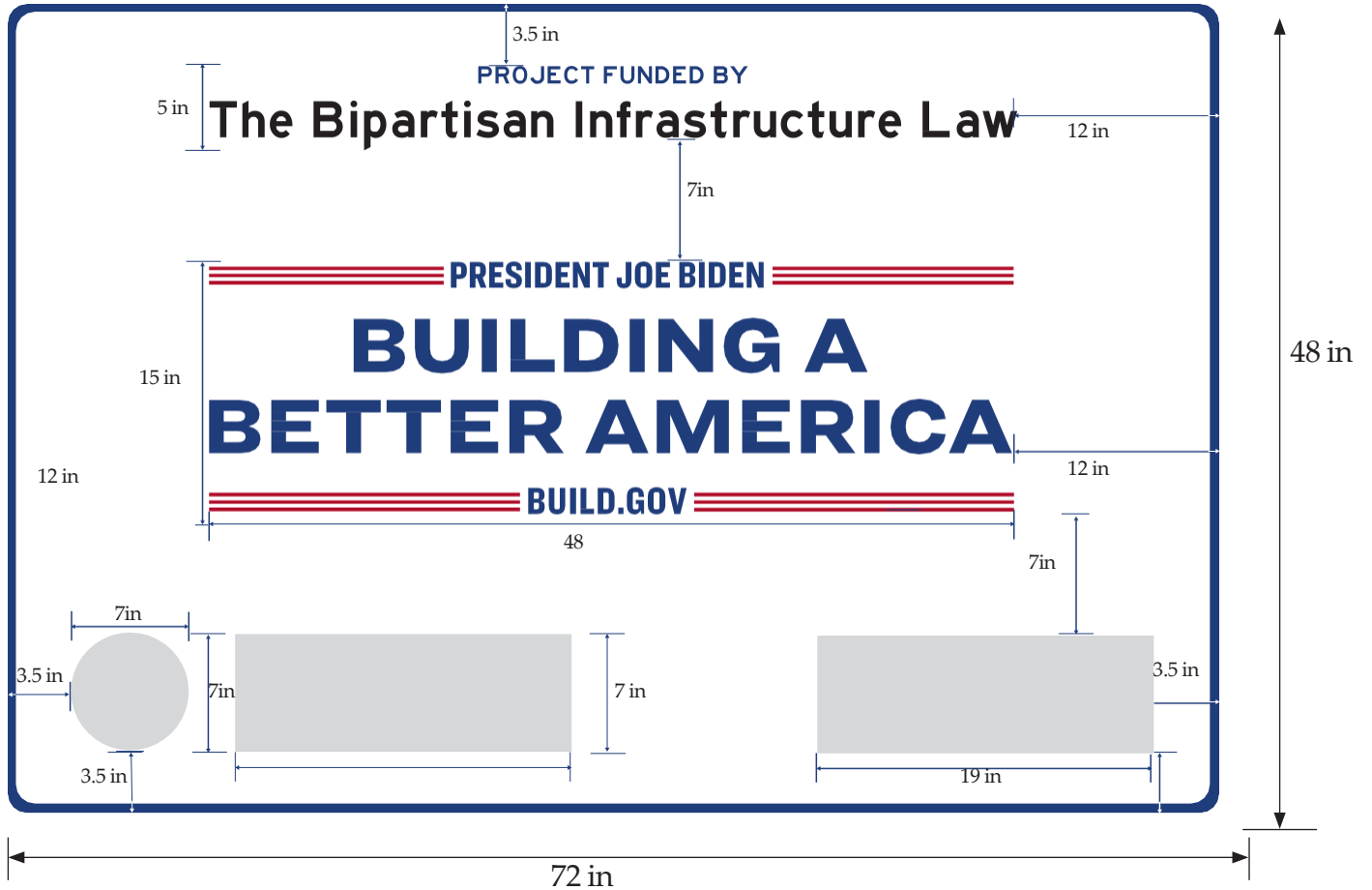
FTA



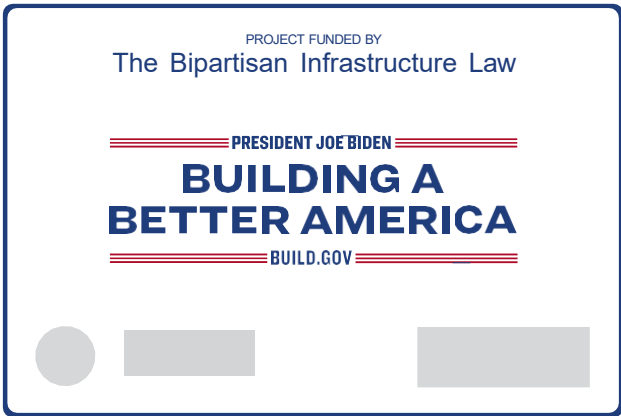
**U.S. Department
of Transportation**

FTA

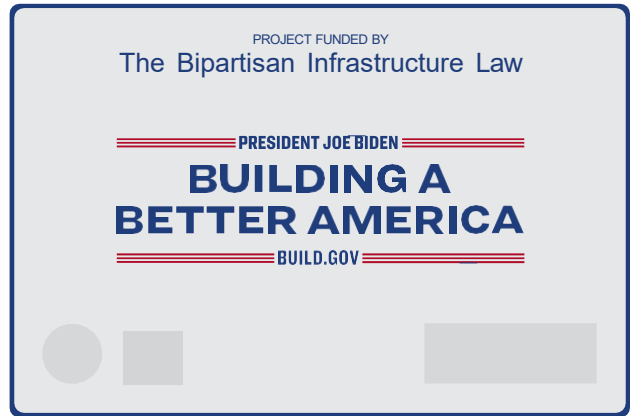
Building A Better America General Guidelines for Logo Applications



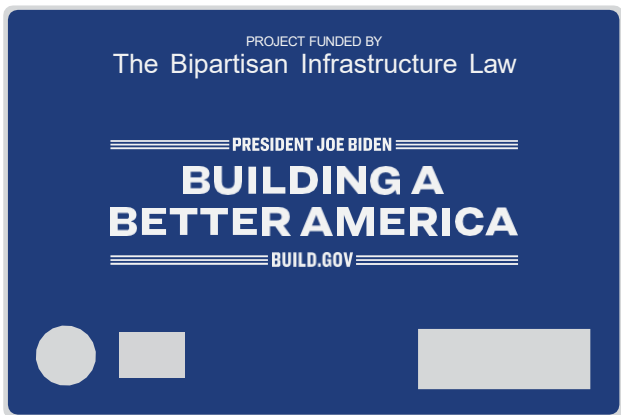
Sign Colors *



White *

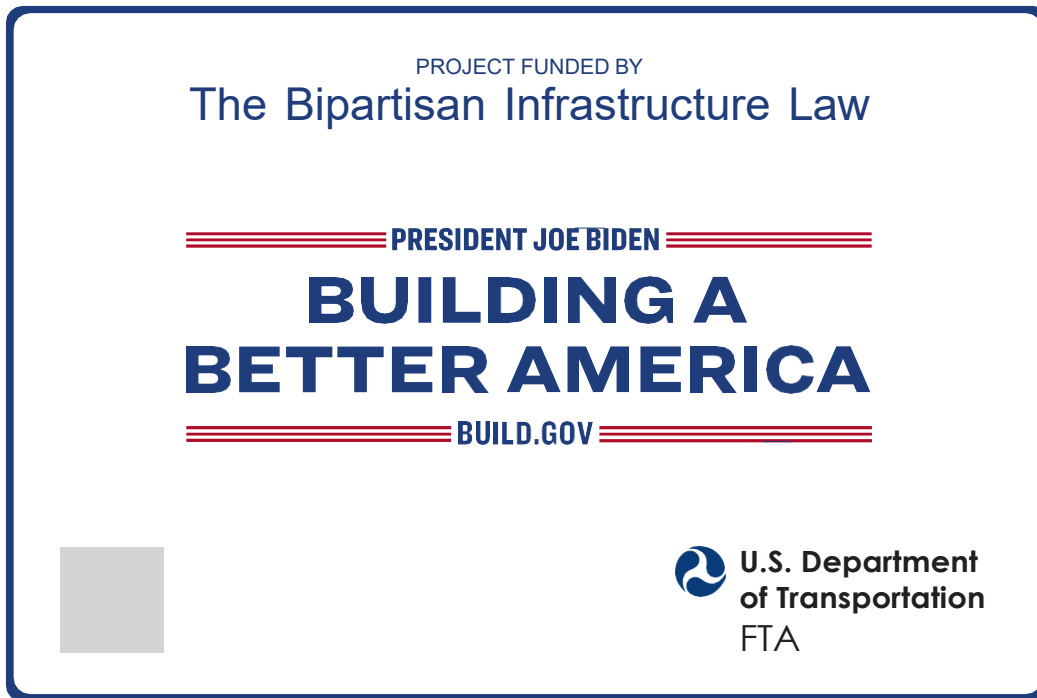


Gray

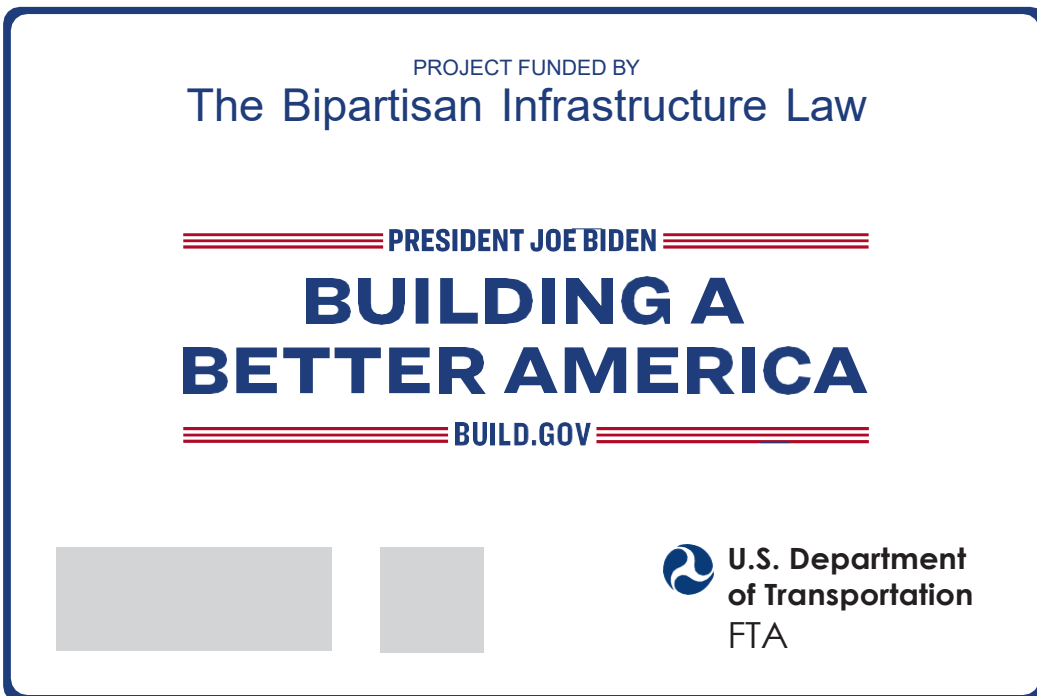


Blue

State, City and County Logo Variations



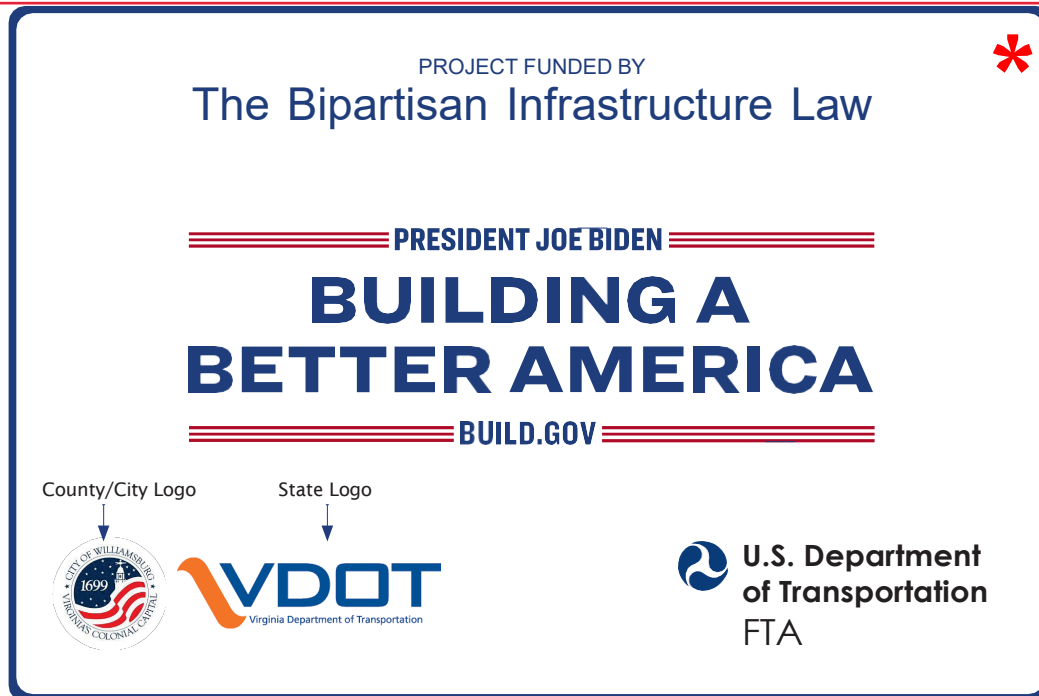
Square State Logo: 7X7 inches



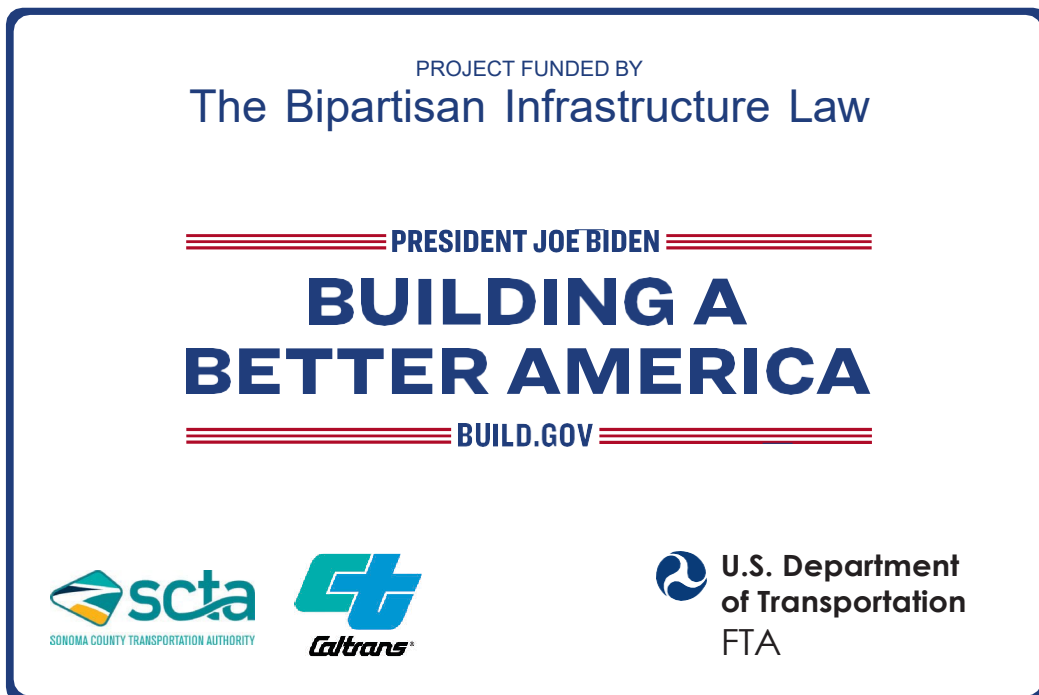
Rectangle State Logo: not to exceed 19 x 7 inches

3 Logos Samples *

* The 3-logo arrangement sign below is a general reference for all Alabama CWSRF and DWSRF (BIL Funded) Loan Projects. (Please see page 57 (last page) for an illustration of the selected Alabama BIL sign.)

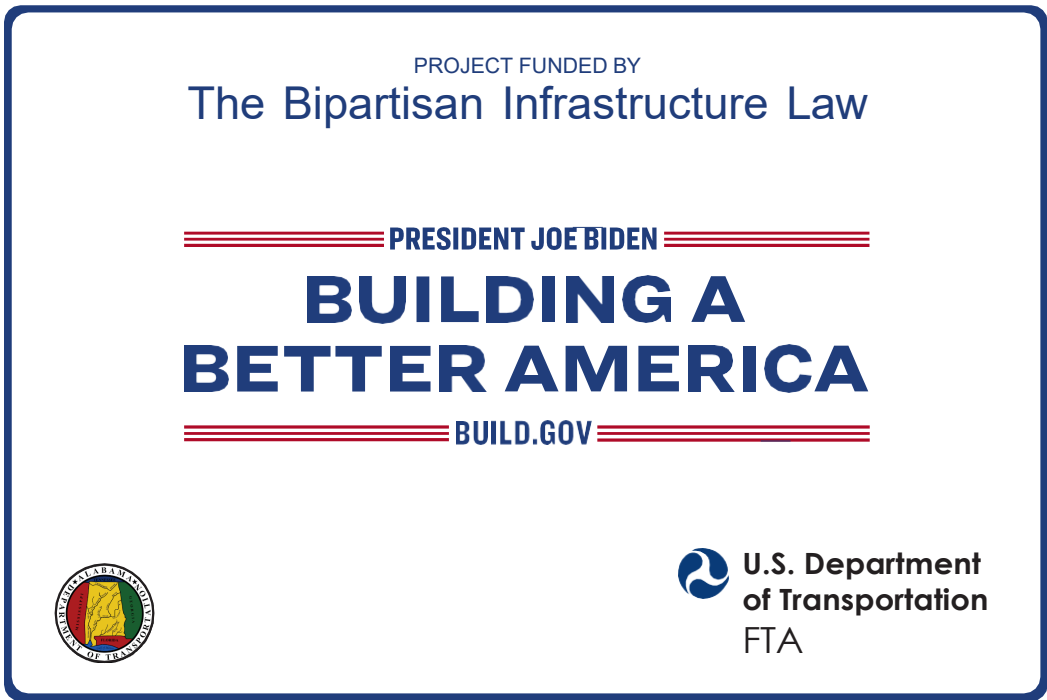


City Circle Logo 7 X 7 Inches. State Rectangle Logo should not exceed 19x7 inches

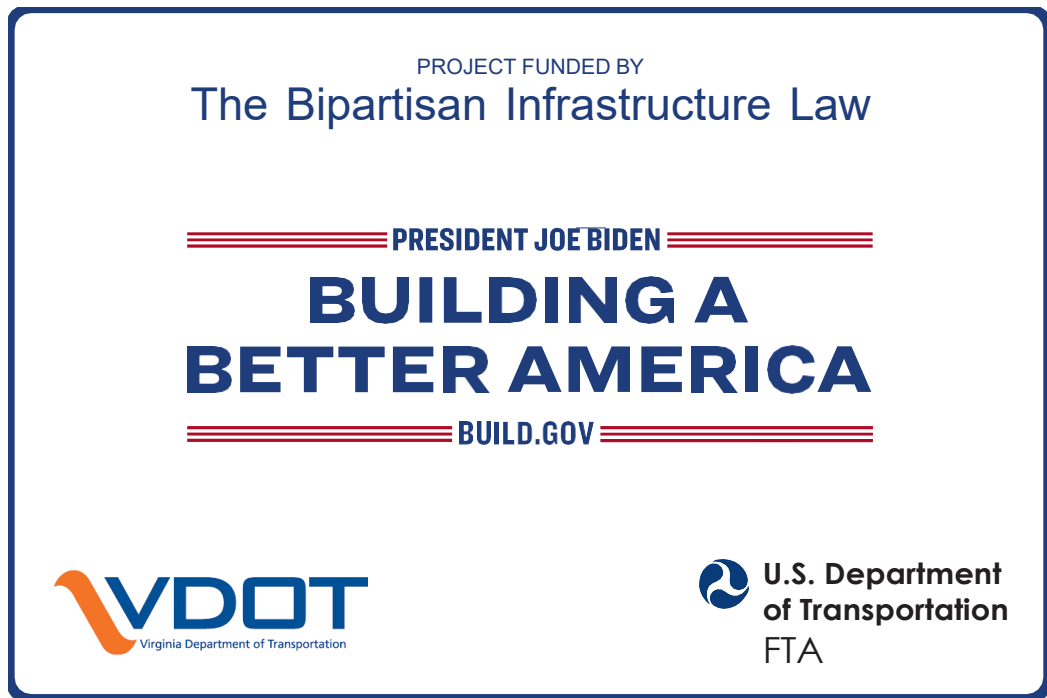


Rectangle State Logo: not to exceed 19 x 7 inches

2 Logos Samples



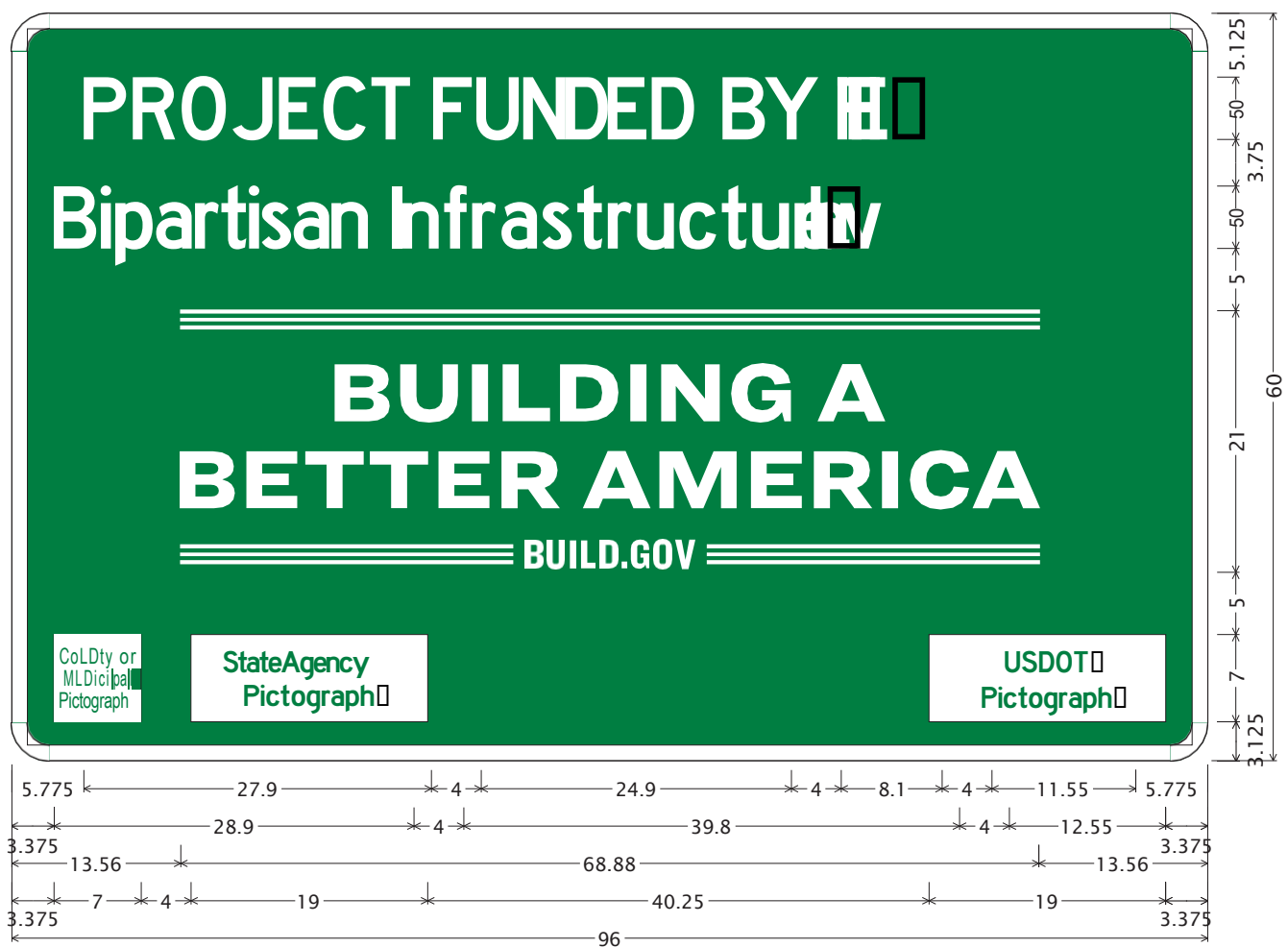
Circle State Logo: 7 x 7 inches



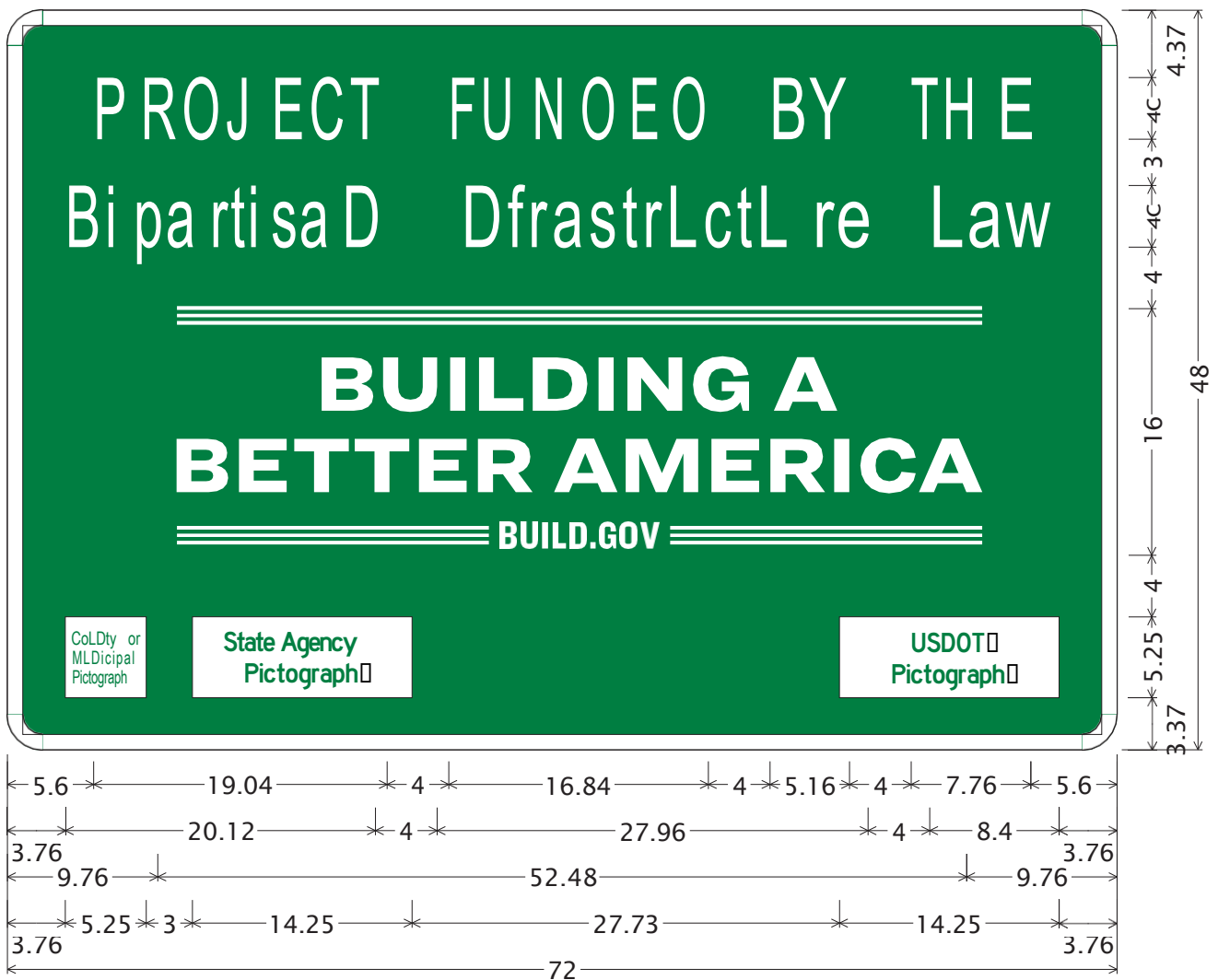
Circle State Logo: 7 x 7 inches

RULES FOR HIGHWAY RIGHT OF WAY SIGNAGE

Highway Right of Way Signage 8 Feet



Highway Right of Way Signage 6 Feet



EPA LOGO & SEAL SPECIFICATIONS FOR SIGNAGE PRODUCED BY EPA ASSISTANCE AGREEMENT RECIPIENTS

EPA's logo is a two-leaved flower, without stem, accompanied by the Agency's initials to the right. The EPA logo is the primary identifier for use on construction grant signage. Assistance agreement recipients are not required to receive EPA approval to use the EPA logo when used in accordance with the terms and conditions of their assistance agreement award.

The official seal of EPA is circular and is comprised of the two-leaved flower, with stem, encircled by the title UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. The EPA seal may be used only when official comparable seals are used and the recipient has received prior written EPA approval.

It is important that the EPA logo and seal always be reproduced with consistent high quality. The seal and logo must remain intact and unchanged (for example, don't use the flower from the seal by itself). The logo and seal may only be displayed using either the standard color scheme or a single color that complements the background where it appears.

COLOR AND SPACING

- The entire logo and seal must appear in black, gray, or any uniform color or knock out white on a dark background. The flower and text may not be different colors. The flower itself may not contain more than one color. The seal can be monotone or full color, based on the rest of the seals that it's placed with.
- The relationship between the flower portion of the logo and Helvetica type should never be shifted or adjusted.



PREFERRED USE

Use the preferred presentation of the logo on products that do not have enough space for the full logo with text. It may also be used in the presence of other logos.



SIZE AND LOGO WITH OTHER LOGOS

It's important that all parts of the EPA logo be readable. The EPA logo should not be reproduced at sizes any smaller than 1.0" height on a sign. There are no maximum size restrictions as long as the clear space requirements are met. The logo should be made the same relative size as the other logos on the signage.



SIZE AND SEAL WITH OTHER SEALS

When there are multiple state or Federal seals/circular logos, the use of the EPA seal is appropriate with prior written EPA approval. The EPA seal should be the same size as the seals that accompany it and should be a minimum of 3 inches in height.



IMPROPER LOGO USAGE



AL BIL Sign Detail *

* This red, white and blue, 3-logo BIL sign (utilizing these required State of Alabama and Federal logos (as arranged and shown below)) should be erected on the project sites of all Alabama Clean Water and Drinking Water BIL Funded Projects alongside the SRF Project Sign.

PROJECT FUNDED BY
The Bipartisan Infrastructure Law

==== PRESIDENT JOE BIDEN ====

**BUILDING A
BETTER AMERICA**

==== BUILD.GOV ====



**BIG CREEK LAKE DAM TOE BERM
CONTRACT NO. 175578363
Proposal Sheet**

BASE BID ITEMS

Item No.	Item Description	Unit	Unit Price	Quantity	Total Amount
BI001	Mobilization and Demobilization	LS	--	1	
BI002	General Conditions	LS	--	1	
BI003	Erosion Control	Total	--	--	
	Silt Fence	LF			
	Straw bales	LF			
	Turbidity Curtains 10ft depth x 80ft length	EA			
	Construction Entrance Aggregate	CY			
	Construction Entrance Geotextile	SY			
BI004	BI004 - Site Clearing and Demolition	Total	--	--	
	Topsail stripping/stockpile	CY			
	Clearing and Grubbing wooded area	AC			
	Excavate access road	CY			
	Excavate existing terracotta piping	CY			
BI005	Earthwork	Total	--	--	
	Borrow Sand	CY			
	No. 89 aggregate	CY			
	No. 4 aggregate	CY			
	Gabion Stone	CY			
	Crusher Run	CY			
BI006	Subsurface and Surface Drainage Improvements	Total	--	--	
	Nyloplast Drain Basin (8" HDPE)	EA			
	Precast Concrete Headwall (8" HDPE) Terac. Drains	EA			
	Precast Concrete Headwall (12" HDPE)	EA			
	Precast Concrete Headwall (24" HDPE)	EA			
	CPP (8") Corrugated Plastic Pipe	LF			
	HDPE pipe (8") ADS N-12	LF			
	HDPE pipe (6") ADS N-12	LF			
	HDPE pipe (12") ADS N-12	LF			
	HDPE pipe (24") ADS N-12	LF			
	CMP (28") Corrugated Metal Pipe	LF			
BI007	Flume Box Relocation and Concrete Pad Construction	Total	--	--	
	Concrete	CY			
BI008	Site/Surface Restoration	Total	--	--	
	Topsoil	CY			
BI009	Downstream Ditches	Total	--	--	
	Downstream Ditch No. 1		--	--	
	Excavate Ditch and Transport Excavated Materials	CY			
	Borrow Sand	CY			
	No. 89 aggregate	CY			
	No. 4 aggregate	CY			
	Gabion Stone	CY			
	Downstream Ditch No. 2		--	--	
	Excavate Ditch and Transport Excavated Materials	CY			
	Borrow Sand	CY			
	No. 89 aggregate	CY			
	No. 4 aggregate	CY			
	Gabion Stone	CY			
BI010	Construction Contingency	LS	\$355,500	1	\$355,500

TOTAL BASE BID AMOUNT \$ _____