

Krebs Engineering, Inc.
1040 Stanton Road
Suite A & B
Daphne, AL 36526
251-309-9124
August 23, 2024

ADDENDUM NO. 1

BID NO.: 24-031
OWNER: CITY OF FAIRHOPE, ALABAMA
PROJECT: FAIRHOPE WWTP HEADWORKS IMPROVEMENTS
BID DATE: September 11, 2024
TO: ALL PROSPECTIVE BIDDERS

The changes, modifications, and/or additions covered by and outlined in this Addendum No.1 shall become part of and be incorporated in the Specifications, Contract Documents, and Bid Documents for the above-referenced project:

SPECIFICATIONS TO BE REVISED BY ADDENDUM:

AD1.1 SECTION 44 42 26 – SELF-CLEANING SCREEN

In PART 1 - GENERAL, 1.2 SUMMARY, replace B with the following:

B. The equipment shall include, but not be limited to the following:

1. Base Bid Item 2 - The system includes two (2) mechanical screens, one screenings washer/compactor for two (2) screens, one (1) system control panel, and appurtenances as specified and shown in the bid documents.
2. Alternate A1 - The system includes one (1) mechanical screen, one screenings washer/compactor for one (1) screen, one (1) system control panel, and appurtenances as specified and shown in drawing C3-06A. Should the Owner choose this Alternate, Base Bid Item No. 2 shall be deducted from the Base Bid amount.

AD1.2 BID RESPONSE FORM/BID PROPOSAL

In the Bid Proposal Form, change Bid Item A3 to the following:

Furnish and Install stainless steel stop gates in place of the self-contained channel-mounted slide gates shown in drawings C3-06 and C3-06A. Pricing for Furnishing and Installing the wall-mounted self-contained slide gates and channel-mounted self-contained slide gates shall be in Base Bid Item 1.

SPECIFICATIONS TO BE ADDED BY ADDENDUM TO CONTRACT DOCUMENTS:


- AD1.3 The attached State Revolving Fund (SRF) Supplemental General Conditions for SRF-assisted public drinking water and wastewater facilities construction contracts shall be included in the Contract Documents.
- AD1.4 The attached SECTION 44 43 00 – SCUM PUMP STATION shall be added to the specifications.

DRAWINGS TO BE REVISED ADDENDUM:

- AD1.5 Delete Sheet C3-06, HEADWORKS IMPROVEMENTS PLAN (BASE BID), in its entirety and replace with the attached in lieu thereof.
- AD1.6 Delete Sheet C3-06A, HEADWORKS IMPROVEMENTS PLAN (ALTERNATE BID), in its entirety and replace with the attached in lieu thereof.

This Addendum No. 1 shall be attached to the front of your set of specifications and made a part of the Contract Documents. Receipt of this Addendum No. 1 shall be acknowledged on the Proposal Form.

Krebs Engineering, Inc.

By 
D. Robert Vaughan, P.E.
Associate

THIS IS THE LAST PAGE

Attachments to Addendum No. 1 following this page:

State Revolving Fund (SRF) Supplemental General Conditions – 37 Pages

Specification SECTION 44 43 00 – SCUM PUMP STATION – 14 Pages

C3-06 – 1 Page

C3-06A – 1 Page

A total of 56 pages or sheets of drawings (including this page) have been included in Addendum No. 1.

General Contractors are requested to return this page as an acknowledgement that you have received this Addendum by e-mail. This will NOT be mailed. A copy of this Addendum may be picked up at the office of the Engineer.

Return to Krebs Engineering, Inc. by email: rob.vaughan@krebseng.com

Received By _____

Contractor _____

Date _____

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 SRF Assisted

Public Drinking Water and Wastewater
Facilities Construction Contracts



SRF Project Number: _____

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I – ADEM Special Conditions

1. Construction within State right-of-way shall be in accordance with 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 XVII and XVIII, pages SGC-34 – SGC-35**, 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 contractor’s bid up to a maximum \$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 – 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 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.

Failure on the part of the apparent successful bidder to submit required information to the loan recipient (Owner) may be considered by the Owner in evaluating whether the bidder is responsive to bid requirements.

The project objectives for utilization of Minority Business Enterprises (MBE's) and Women's Business Enterprises (WBE's) 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; Hispanics; 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 prime contractor utilize 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 Centers does not absolve the prime contractors from pursuing additional efforts to meet this objective.

IV – Six Affirmative Steps for Good Faith DBE Solicitation

The loan recipient 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 Department of Transportation (DOT), 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 Owner and Contractor

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

1. SRF project number and project name.
2. List of subcontractors (name, address and telephone) with dollar amount and duration for subcontracts). If there are to be no subcontractors, please indicate as such.
3. List of any subcontract work yet to be committed with estimate of dollar amount and duration of contract.
4. DBE Documents - See **Part IV, page SGC-3**.
5. Debarred Firms Certification – See **Part XIV, page SGC-23**.
6. Certification Regarding Equal Employment Opportunity – See **Part XIII, page SGC-22**.

The 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**). Submit reports directly to:

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

The Prime Contractor must submit the following items to the Owner:

1) DBE Compliance Form. The Owner must submit this information to ADEM 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 for the prime contractor and for all subcontractors. The prime contractor's form should be submitted with the DBE Compliance Form and the subcontractors' forms should be submitted as the subcontracts are executed. **(Page SGC-22)**

3) Debarred Firms Certification. This form is required for the prime contractor and for all subcontractors. The prime contractor's form should be submitted with the DBE Compliance Form and the subcontractors' forms should be submitted as the subcontracts are executed. **(Page SGC-23)**

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 prime contractor, how much the DBE subcontractor was paid, and any other concerns the DBE subcontractor might have. The prime contractor must provide this form to each DBE subcontractor for the DBE subcontractor's submittal to ADEM's DBE Coordinator (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 prime contractor and the price of the work. This form is to be provided by the prime contractor to each DBE subcontractor and submitted with the DBE Compliance Form. **(Page SGC-12)**

6) EPA Form 6100-4 DBE Subcontractor Utilization Form. This form captures the prime contractor's intended use of an identified DBE subcontractor and the estimated dollar amount of the work. This form is to be completed by the prime contractor and submitted with the DBE Compliance Form. **(Page SGC-14)**

7) EPA Form 5700-52 A MBE/WBE Utilization Reports (DBE Annual Report). The Owner must submit this information to ADEM within 30 days of the end of the annual reporting period **(October 30th)**. **(Pages SGC-16 - SGC-17)**

8) Changes to Approved DBE Compliance Form. 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-21)**

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

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

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 prime contractor is strongly encouraged to follow up each written, fax, or email solicitation with at least 1 logged phone call.

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

The prime contractor must employ the six affirmative steps to subcontract with DBEs, even if the prime contractor has achieved its fair share objectives. If a DBE subcontractor fails to complete work under the subcontract for any reason, the prime contractor must notify the 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 Owner and to ADEM 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 ADEM for new DBE subcontracts.

VI – Resources for Identifying 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
205/254-2799
205/254-7741 FAX
Monique.shorts@birminghamal.gov

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

National Association of
Minority
Contractors (NAMC)
<http://www.namc-atl.org>

Alabama Department of
Transportation
ATTN: John Huffman
1409 Coliseum Boulevard
Montgomery, Alabama
36130
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
404/894-2096
<http://www.mbd.gov/>

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

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

NOTES:

(1) The Owner and the prime contractor shall use the necessary resources to identify and directly solicit no less than 3 certified DBE/MBE firms and 3 WBE firms to bid in each expected contract/subcontract area. If a diligent and documented search of ALDOT, SBA, and MBDA directories does not identify 3 potential certified DBE/MBE firms and 3 potential certified WBE firms, then the prime contractor shall post an advertisement in at least 1 of the other online or print resources. Whenever possible, post solicitation for bids or proposals 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 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, you may contact ADEM's DBE Coordinator, Diane Lockwood, at (334) 271-7815 for assistance.

VII – DBE Compliance Form

PLEASE NOTE: ALL INFORMATION OUTLINED ON THIS FORM IS REQUIRED FOR DBE COMPLIANCE. THE PROPOSED PRIME CONTRACTOR AND OWNER SHOULD ENSURE THAT THIS INFORMATION IS COMPLETE PRIOR TO SUBMITTAL.

Loan Recipient: _____ SRF Loan Number: _____

CERTIFICATIONS:

I certify that the information submitted on and with this form is true and accurate and that this firm 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 Owner's State Revolving Fund loan contract.

(Signature of Owner or Owner's representative) Date _____

(Printed name and title)

GENERAL INFORMATION:

Owner contact: _____

Owner phone number/email:

Consulting engineer contact:

Consulting engineer phone number/email:

Proposed prime contractor:

Prime contractor contact:

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 submit the following with the DBE COMPLIANCE FORM:

- (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 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 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 Employment Opportunity. **(Page SGC-22)**
- (6) Debarred Firms Certification. **(Page SGC-23)**
- (7) EPA Form 6100-3 DBE Subcontractor Performance Form for all DBE subcontracts. **(Page SGC-12)**
- (8) EPA Form 6100-4 DBE Subcontractor Utilization Form for all DBE subcontracts. **(Page SGC-14)**

VIII - EPA Form 6100-2 DBE Subcontractor Participation Form



OMB Control No: 2090-0030
 Approved: 8/ 13/ 2013
 Approval Expires: 8/ 31/ 2015

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.

IX - EPA Form 6100-3 DBE Subcontractor Performance Form



OMB Control No: 2090-0030
 Approved: 8/13/2013
 Approval Expires: 8/31/2015

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
 Approved: 8/13/2013
 Approval Expires: 8/31/2015

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
 Approved: 8/ 13/ 2013
 Approval Expires: 8/ 31/ 2015

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
 Approved: 8/13/2013
 Approval Expires: 8/31/2015

**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.

XI - EPA Form 5700-52A MBE/WBE Utilization Reports

OMB CONTROL NO. 2090-0030
 APPROVED: 05/01/2008
 APPROVAL EXPIRES: 12/22/2013

U.S. ENVIRONMENTAL PROTECTION AGENCY MBE/WBE UTILIZATION UNDER FEDERAL GRANTS AND COOPERATIVE AGREEMENTS

PART I. (Reports are required even if no procurements are made during the reporting period.)

1A. FEDERAL FISCAL YEAR (Oct. 1-Sep 30) 20_____	1B. REPORTING PERIOD (Check ALL appropriate boxes) <input type="checkbox"/> 1 st (Oct-Dec) <input type="checkbox"/> 2 nd (Jan-Mar) <input type="checkbox"/> 3 rd (Apr-Jun) <input type="checkbox"/> 4 th (Jul-Sep) <input type="checkbox"/> Semi-Annual (Oct-Mar) <input type="checkbox"/> Semi-Annual (Apr-Sep) <input type="checkbox"/> Annual <input type="checkbox"/> Check if this is the last report for the project (Project completed).			
1C. REVISION OF A PRIOR REPORT? Y or N Year: _____ Quarter: _____	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: _____ E-mail: _____	2C. PHONE: Fax: _____	3B. RECIPIENT REPORTING CONTACT: Name: _____ E-mail: _____	3C. PHONE: Fax: _____	
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 (SRF State Recipients, refer to Instructions for Completion of blocks 4A, 5A and 5C.) EPA Share: \$ _____ Recipient Share: \$ _____		5B. If NO procurement 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="checkbox"/> No <input type="checkbox"/> Were contracts issued under this assistance agreement? Yes <input type="checkbox"/> No <input type="checkbox"/>				
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.)				
<u>Construction</u>	<u>Equipment</u>	<u>Services</u>	<u>Supplies</u>	<u>Total</u>
\$MBE: _____	_____	_____	_____	0.00 _____
\$WBE: _____	_____	_____	_____	0.00 _____
6. COMMENTS: (If no MBE/WBE procurements were accomplished during the reporting period, please explain what steps you are taking to achieve the MBE/WBE Program requirements specified in the terms and conditions of the Assistance Agreement.)				
7. NAME OF RECIPIENT'S AUTHORIZED REPRESENTATIVE	TITLE			
8. SIGNATURE OF RECIPIENT'S AUTHORIZED REPRESENTATIVE	DATE			

XI - EPA Form 5700-52A MBE/WBE Utilization Reports

Instructions:

A. General Instructions:

MBE/WBE utilization is based on 40 CFR Part 33. EPA Form 5700-52A must be completed by recipients of Federal grants, cooperative agreements, or other Federal financial assistance which involve procurement of supplies, equipment, construction or services to accomplish Federal assistance programs.

Recipients are required to report 30 days after the end of each federal fiscal quarter, semiannually, or annually, per the terms and conditions of the financial assistance agreement.

	Quarterly Reporting Due Date	Semiannual Reporting Due Date	Annual Reporting Due Date
Agreements awarded prior to May 27, 2008	January 30, April 30, July 30, October 30	N/A	October 30
Agreements awarded on or after May 27, 2008	N/A	April 30, October 30	October 30

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 managed and operated by non-minority individuals 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. Include of MBEs/WBEs on solicitation lists.
2. Assure that MBEs/WBEs are solicited once they are identified.
3. Divide total requirements into smaller tasks to permit maximum MBE/WBE participation, where feasible.
4. Establish delivery schedules which will encourage MBE/WBE participation, where feasible.
5. Encourage use of the services of the U.S. Department of Commerce's Minority Business Development Agency (MBDA) and the U.S. Small Business Administration to identify MBEs/WBEs.

XI - EPA Form 5700-52A MBE/WBE Utilization Reports

6. Require that each party to a subgrant, subagreement, or contract award take the good faith efforts outlined here.

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, 2010 falls within Federal fiscal year 2011)

- 1b. Check applicable reporting box, quarterly, semiannually, or annually. Also indicate if this is the last report for the project.

- 1c. Indicate if this is a revision to a previous year, half-year, or quarter, and provide a brief description of the revision you are making.

- 2a-c. 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 www.epa.gov/osbp. Click on "Regional Contacts" for the name of your coordinator.

- 3a-c. 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. Please note that although the New DBE Rule (which took effect May 27, 2008) revised the reporting frequency requirements from quarterly to semiannually, that change only applies to agreements awarded AFTER the New DBE Rule took effect. Therefore, SRF recipients may either continue to report activity for all Agreements on one form on a quarterly basis until the last award that was made prior to the New DBE Rule has been closed out; OR, the recipient may split the submission of SRF reports into quarterly reports for Agreements awarded prior the New DBE Rule, and semiannually for the awards made after the New DBE Rule.

- 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. Please leave 5a blank.

- 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. 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.

- 5d. State whether or not sub-awards and/or subcontracts have been issued under the assistance agreement 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.

***For SRF recipients only:** In 5c please enter the total procurement amount for the quarter, or semiannual period, 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)

6. If there were no MBE/WBE accomplishments this reporting period, please briefly explain what

XI - EPA Form 5700-52A MBE/WBE Utilization Reports

specific steps you are taking to achieve the MBE/WBE requirements specified in the terms and conditions of the Assistance Agreement.

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 assistance agreement 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 Part 30, 31,

and 33); 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

Loan Recipient: _____

SRF Loan Number: _____

CERTIFICATIONS:

I certify that the information submitted on and with this form is true and accurate and that this firm 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.

(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 Owner's State Revolving Fund loan contract.

(Signature of Owner or Owner's representative)

Date _____

(Printed name and title)

GENERAL INFORMATION:

- (1) If an approved subcontractor is terminated or replaced, please identify this company and briefly state 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 1 logged phone call. Whenever possible, post solicitation for bids or proposals 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 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 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 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 contractor must be prepared to comply in all respects with any contract provisions regarding non-discrimination stipulated in conjunction with labor standards.

CONTRACTOR'S CERTIFICATION:

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 Authorized Official: _____

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 owner with the bid proposal. The owner shall transmit one copy to ADEM within 14 days after the bid opening.

Project 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 Authorized Official: _____

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 <http://www.dol.gov/esa/whd/forms/wh347instr.htm> 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 <http://www.dol.gov/esa/contacts/whd/america2.htm>.

(Insert applicable wage rate determination here.)

Wage Rates are county specific for *Heavy Construction* and can be found at:
<http://www.gpo.gov/davisbacon/al.html> .

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 – Project Sign Detail - CWSRF



STATE OF ALABAMA

Honorable (name), Governor



ALABAMA WATER POLLUTION CONTROL AUTHORITY
POLLUTION CONTROL PROJECT

(NAME OF OWNER)

(NAME OF PROJECT)



\$(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.

XVIII – Project Sign Detail - DWSRF

 <p>ADEM Alabama Department of Environmental Management</p>	<p>STATE OF ALABAMA Honorable (Name), Governor</p>	
<p>ALABAMA DRINKING WATER FINANCE AUTHORITY INFRASTRUCTURE PROJECT</p> <p>(NAME OF OWNER) (NAME OF PROJECT)</p> <p>\$(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, representing the support structure.]

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 – Construction Contract Requirements

This checklist is to be completed by the Owner/Engineer when submitting plans and specifications to the SRF and Operator Certification Section for review. It affirms to the SRF reviewer that the 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 bid opening, the Owner/Engineer is to prepare the Project Review and Cost Summary (**page SGC-37**) and submit it to the SRF and Operator Certification Section of ADEM. Upon completion of review, an Approval to Award will be issued.

Note: The Owner assumes all financial risk if the construction contract is awarded prior to the issuance of an Approval to Award by the SRF and Operator Certification Section.

XX – Project Review and Cost Summary

ADEM Alabama Department of Environmental Management	SRF Project Review and Cost Summary	Form Revised 03 -10-10
<p>This form is to be completed and sent with supporting documentation to ADEM <u>within 14 days after bid opening</u>. Following review, an Approval to Award letter will be issued. Upon award of the contract, a complete, bound set of the contract documents should be forwarded to ADEM for review.</p>		
<p>Loan Applicant: _____ Project Number: _____</p>		
<p>Contract Number/Name: _____</p>		
<p>1. Date of plans and specifications concurrence letter from ADEM: _____</p>		
<p style="padding-left: 40px;">Date of construction permit issuance from ADEM: _____</p>		
<p>2. Attach copies of the following documents:</p> <ul style="list-style-type: none">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 loan applicant 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 SRF loan application.g. Documentation from the owner and contractor. The list of required documents can be found in Part III, page SGC-3 of the ADEM Supplemental General Conditions for SRF Assisted Public Drinking Water and Wastewater Facilities Construction Contracts (ADEM FORM 341).h. Copy of the wage determination used in bidding.i. Any addenda that have been issued after ADEM review of the plans and specifications.		
<p>Comments:</p>		

SECTION 44 43 00 – SCUM PUMP STATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Under this section of the specification, the contractor shall provide and install the equipment as shown in the contract drawings and as described herein.
- B. The equipment shall include, but not be limited to the following:
 - 1. The pump station shall include one (1) submersible sewage pump and appurtenances, fiberglass wetwell, precast valve vault, and discharge piping specified and shown in the bid documents.

1.3 SUBMITTALS

- A. **Certification from Contractor and Manufacturer/Suppliers:** During the bid period and again before submitting/ordering and installing materials, products, and equipment, the Contractor and all manufacturers and suppliers shall thoroughly review the materials, products, and equipment being supplied and shall familiarize themselves with the existing and proposed/new facilities, as well as connections to existing facilities/utilities. This shall include field verification of the location, nature, size/dimensions, current and intended future use, etc. Before ordering and installation, the Contractor shall coordinate with all manufacturers and suppliers to provide all needed information including field dimensions, photographs, information on related materials and equipment, etc.). The Contractor and all manufacturers and suppliers shall include written confirmation (with the submittal) of the following:
 - 1. The materials, products, and equipment being supplied are of the correct size, materials, and type.
 - 2. The materials, products, and equipment being supplied do not conflict with existing or proposed/new facilities.
 - 3. The products/equipment being supplied are intended for use in this application.
 - 4. All manufacturer(s) and supplier(s) shall provide (either with submittals or separately) written concurrence/acknowledgment of their review/coordination and concurrence with the items above.
 - 5. Shop drawings and product data submitted for review by the Engineer shall bear the Contractor's certification that he has reviewed, checked, and approved the submittals, that they comply with the requirements of the project and with the provisions of the Contract Documents, and that he has verified all sizes, dimensions, locations, field measurements, construction criteria, materials, catalog numbers, and similar data. Field dimensions, sizes, and other pertinent information shall be clearly shown on the shop drawings/submittals. The Contractor shall also certify that the work represented by the shop drawings is recommended by the Contractor and that the Contractor's warranty and guaranty will fully apply.

- B. The contractor shall provide product data, drawings, and calculations as follows:
 - 1. Basic design, layout, and detailed equipment drawings.
 - 2. Design calculations including upstream and downstream water elevations at low average and peak flow rates.
 - 3. A statement of the terms of the warranties.
 - 4. List of spare parts which should be purchased and kept on hand.
 - 5. All ancillary equipment to be provided by the manufacturer shall be listed.
 - 6. Complete shop drawings of all equipment furnished including cut sheets describing sub-components with the specific components highlighted.
 - 7. Operation & Maintenance Manuals

- C. The Contractor, equipment manufacturer(s) and/or supplier(s), and representative(s) shall be responsible for reviewing the specified equipment during the bid period, and confirming that the specified equipment and appurtenances are suitable for use in this application, and, for notifying the Engineer immediately upon discovery of any issues with the use of the equipment in this application.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Equipment shall be stored and protected per the manufacturer's recommendations.

1.5 QUALITY ASSURANCE

- A. Manufacturer shall have available skilled installation, supervision and start-up services as specified.
- B. Manufacturer shall provide an installation list of a minimum of 10 installations of similar design as specified herein installed within the last five (5) years.

1.6 WARRANTY

- A. The manufacturer of the equipment shall guarantee all components provided by said manufacturer including buy-out items not manufactured by said manufacturer for twelve (12) months, commencing from the date the equipment is put into service and the Owner receives beneficial use. The Contractor shall refer to the General Conditions for additional warranty requirements.

1.7 MANUFACTURERS

- A. Fiberglass Wetwell – L.F. Manufacturing, Inc. or approved equal.
- B. Submersible Pump and Appertenances
 - 1. Flygt
 - 2. KSB
 - 3. Grundfos

PART 2 - PRODUCTS

2.1 FIBERGLASS WETWELL

- A. Fiberglass-reinforced polyester wetwells shall be manufactured from commercial grade

polyester resin or vinyl ester resin, with fiberglass reinforcements. The resin system shall be suitable for atmospheres containing hydrogen sulfide and dilute sulfuric acid as well as other gases associated with the wastewater collection systems. The wetwell shall be a one-piece unit.

B. Materials

1. Resin: The resins used shall be commercial grade unsaturated polyester resin.
2. Reinforcing Materials: The reinforcing materials shall be commercial Grade "E" type glass in the form of mat, continuous roving, chopped roving, roving fabric, or a combination of the above, having a coupling agent that will provide a suitable bond between the glass reinforcement and the resin.
3. Surfacing Materials: If reinforcing materials are used on the surface exposed to the contained substance, it shall be a commercial grade chemical-resistant glass that will provide a suitable bond with the resin and leave a resin rich surface.
4. Fillers and Additives: Fillers, when used, shall be inert to the environment and wetwell construction. Additives, such as thixotropic agents, catalysts, promoters, etc., may be added as required by the specific manufacturing process to be used. The resulting reinforced plastic material must meet the requirements of this specification.

C. Fabrication

1. Resin: Exterior Surface: The exterior surface shall be relatively smooth with no sharp projections. Handwork finish is acceptable if enough resin is present to eliminate fiber show. The exterior surface shall be free of blisters larger than 1/2 inch in diameter, delamination and fiber show.
2. Interior Surface: The interior surface shall be resin rich with no exposed fibers. The surface shall be free of grazing, delamination, and blisters larger than 1/2 inch in diameter, and wrinkles of 1/8 inch or greater in depth. Surface pits shall be permitted up to 6 per square foot if they are less than 3/4 inch in diameter and less than 1/16 inch deep.
3. Fiberglass Reinforced Bottom: The bottom to be fabricated using fiberglass material as stated in section A.2. Material and installation to meet all physical requirements as per section A.4. Bottom to be attached to wetwell pipe with fiberglass layup to comply with A.S.T.M.-D3299 specifications. When reinforcement is necessary for strength, the reinforcement shall be fiberglass channel laminated to wetwell bottom.
4. Fiberglass Reinforced Top: The fiberglass wetwell top shall be fabricated using fiberglass material as stated in section A.2. Material and installation to meet all physical requirements as per section A.4. Top to be attached to wetwell pipe with fiberglass layup to comply with A.S.T.M.-D3299 specifications. When reinforcement is necessary for strength, the reinforcement shall be fiberglass channel laminated to wetwell top.
5. Installation of Stubouts: Effluent, service, or discharge lines may be factory installed. Approved methods are PVC sewer pipe, Inserta-Tee fittings, or Kor-N-Seal boots. Installation of stubouts to be fiberglass layup to comply with A.S.T.M.-D3299 specifications.
6. Defects not Permitted:
 - a. Exposed fibers: glass fibers not wet out with resin.
 - b. Resin runs: runs of resin and sand on the surface.
 - c. Dry areas: areas with glass not wet out with resin.
 - d. Delamination: separation in the laminate.

- e. Blisters: light colored areas larger than 1/2 inch in diameter.
- f. Cracking: cracks caused by sharp objects.
- g. Pits or Voids: air pockets.
- h. Wrinkles: smooth irregularities in the surface.
- i. Sharp projection: fiber or resin projections necessitating gloves for handling.

D. Physical Requirements

1. Load Rating: The complete wetwell shall have a minimum dynamic-load rating of 16,000 ft-lbs when tested in accordance with Section A.5. To establish this rating, the complete wetwell shall not leak, crack, or suffer other damage when load tested to 40,000 lbs and shall not deflect vertically downward more than 1/4 inch at the point of load application when loaded to 24,000 lbs.
2. Stiffness: The wetwell cylinder shall have a minimum pipe-stiffness value shown in Table 1 when tested in accordance with Section A.5.

TABLE #1 STIFFNESS REQUIREMENTS

LENGTH - FT.	F/AY - PSI
10 to 20	2.01
21 to 30	3.02
31 to 40	5.24

E. Physical Properties

	HOOP DIRECTION	AXIAL DIRECTION
1. Tensile Strength (psi)	18,000	5,000
2. Tensile Modulus (psi)	0.8 x 10 ⁶	0.7 x 10 ⁶
3. Flexural Strength (psi)	26,000	4,500
4. Flexural Modulus (psi)		
(no ribs - 48", 60", 72")	1.4 x 10 ⁶	0.7 x 10 ⁶
(with ribs - 96", 144")	0.7 x 10 ⁶	0.7 x 10 ⁶

F. Test Methods

1. Tests shall be performed as specified in A.S.T.M.-D3753 latest edition, Section 8.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with the Installer present, for compliance with requirements for installation tolerances and other conditions affecting the performance of equipment.

3.2 INSTALLATION

- A. Comply with the Manufacturer's detailed written instructions for installing the equipment.

- B. Installation and operation shall be per instructions and recommendations provided by the Manufacturer.
- C. General: The limit of excavation shall be such to allow for placing and removing forms, installing sheeting, shoring, bracing, etc. The Contractor shall pile excavated material in a manner that will not endanger the work and will avoid obstructing sidewalks, driveways, power poles, etc. Drainage shall be kept clear.
- D. Vertical Sides: When necessary to protect existing or proposed structures or other improvements, the Contractor shall maintain vertical sides of the excavation. The limit shall not exceed three feet outside the footing on a vertical plane parallel to the footing except where specifically approved otherwise by the Engineer. The Contractor shall provide and install any sheeting, shoring, and bracing as necessary to provide a safe work area as required to protect workmen, structures, equipment, power poles, etc. The Contractor shall be responsible for the design and adequacy of all sheeting, shoring, and bracing. The sheeting, shoring, and bracing shall be removed as the excavation is backfilled in such a manner as to prevent injurious caving.
- E. Sloping of Sides: Where sufficient space is available, the Contractor shall be allowed to back slope the sides of the excavation. The back slope shall be such that the excavation shall be safe from caving. The type of material being excavated shall govern the back slope used, but in any case the back slope shall be no steeper than 1 foot horizontal to 1 foot vertical.
- F. Dewatering: The Contractor shall keep the excavation free from water by use of cofferdams, bailing, pumping, well pointing, or any combination as the particular situation may warrant. All dewatering devices shall be installed in such a manner as to provide clearance for construction, removal of forms, and inspection of exterior of form work. It is the intent of these specifications that the foundation be placed on a firm dry bed. The foundation bed shall be kept in a dewatered condition a sufficient period of time to insure the safety of the structure. All dewatering methods and procedures are subject to the approval of the Engineer. The excavation shall be protected from excessive rainfall, drainage and drying. The excavation shall be inspected and approved by the Engineer before work on the structure is started. It is the intent of these specifications that the Contractor provide a relatively smooth, firm foundation bed for footings and slabs that bear directly on the undisturbed earth without additional cost to the Owner, regardless of the soil conditions encountered. The Engineer will be the sole judge as to whether these conditions have been met. The contractor shall pile excavated material in a manner that will not endanger the work.
- G. Unauthorized Over Excavation: Excavation for slabs, footings, etc., that bear on earth shall not be carried below the elevation shown on the drawings. In the event the excavation is carried on below the indicated elevation, the Contractor shall bring the slab, footing, etc., to the required grade by filling with concrete having a minimum compressive strength of at least 3,000 psi at 28 days.
- H. Handling: Do not drop or impact the wetwell. Wetwells shall be chocked if stored horizontally. If wetwells must be moved by rolling, the ground transversed shall be

smooth and free of rocks, debris, etc. FRP wetwells may be lifted by the installation of two lifting lugs as specified by the manufacturer on the outside surface near the top or by a sling or "choker" connection around the center. Use of chains or cables in contact with the wetwell surface is prohibited. Wetwells may be lifted horizontally using one support point.

- I. Open Bottom Wetwell Installation: Bottom of excavation should be compacted to 95% Standard Proctor Density. Pour reinforced concrete base one foot deep and at least two feet larger than the fiberglass wetwell outside diameter. As soon as the concrete has set-up enough to support the fiberglass wetwell, lower the wetwell into place. Pour a minimum of one foot of reinforced concrete on the inside, also a minimum of one foot deep and two feet from the fiberglass wetwell wall on the outside of the wetwell. Insert ram neck type sealant on the outside of fiberglass wetwell around the bottom where the fiberglass and concrete come together.
- J. Cutouts: Cutouts in wetwell wall should be made with proper cutting tools, such as jig saw or hole saw. Do not use axe or other impact-type tools.
- K. Installation of Sewer Pipe Type 1: Make the cutout in the wetwell wall, the outside diameter of pipe, plus 1/2 inch maximum. Slip pipe into position. Apply industrial grade silicone around the pipe next to the wetwell wall cutout on the inside and on the outside. Cover the outside siliconed area with epoxy grout and backfill.
- L. Installation of Sewer Pipe Type 2: Make the cutout in the wetwell wall, the outside diameter of pipe, plus 1/2 inch maximum. Grind the outside surface of the pipe and both the inside and the outside surfaces of the cutout in the wetwell wall. (Apply a priming agent to any PVC pipe that might be used before fiberglass lay-up.) Insert the pipe through the cutout in the wall of the wetwell. Apply fiberglass putty to the inside and the outside of the wetwell wall cutout, filling openings between pipe and cutout. Make a good radius for the fiberglass lay-up. After putty has set-up, fiberglass the pipe into place. Use one layer of woven roving sandwiched between two layers of fiberglass mat. Allow fiberglass to completely set-up before backfilling. Fiberglass layup method to comply with A.S.T.M.-D3299 specifications.
- M. Installation of Sewer Pipe Type 2: Install Insert-A-Tee type fitting per manufacturers instruction. (Fowler Mfg. Co., P.O. Box 767, Hillsboro, Or. 97123. PH. 503-359-5417) or approved equal.
- N. Closed Bottom Wetwell Installation: Bottom of excavation should be compacted to 95% Standard Proctor Density. Wetwells with diameters less than 60 inches and depths less than 12 feet, require a base of 6 inches of crushed stone. Wetwells with diameters of 60 inches and larger and depths of 12 feet and greater, should have a poured reinforced concrete base at least one foot deep and at least two feet larger than fiberglass wetwell outside diameter. The fiberglass wetwell shall be lowered into the wet concrete and brought to plumb. Pour reinforced concrete over the anti-flotation flange. The concrete shall be a minimum of one foot deep and two feet from outside wall of the wetwell. More concrete may be required in high water table areas. In high water table areas you should consult your Engineer for backfill requirements.
- O. Internal Bottom Ribs: Wetwells with internal bottom stiffening ribs will require that concrete be poured on the inside of the wetwell to a depth equal to that of the

stiffening ribs. This is typically 4 – 6 inches.

- P. Backfill Material: Unless shown otherwise on the drawings, sand or crushed stone shall be used for backfill around the wetwell for a distance of two feet from the outside surface and extending from the bottom of the excavation to the bottom of the top slab. Suitable material chosen from the excavation may be used for the remainder of the backfill. The material chosen shall be free of large lumps or clods, which will not readily break down under compaction. This material will be subject to approval by the Engineer. Backfill material shall be free of vegetation or other extraneous material. Excavated materials which are to be used for fill or backfill may be stockpiled on the site. Location of stockpiles shall be approved by the Engineer. Top soil should be stockpiled separately and used for finish grading around the structure.
- Q. Backfill Lifts: Backfill shall be placed in layers of not more than 12 loose measure inches and mechanically tamped to at least 95% Standard Proctor Density. Flooding will not be permitted. Backfill shall be placed in such a manner as to prevent any wedging action against the structure.
- R. Marking and Identification: Each wetwell shall be marked with the following information. Manufacturer's name or trademark Manufacturing special number (3) Total length and nominal diameter.
- S. The Contractor shall finish coat all non-stainless steel metals per section 09 96 00.

3.3 SUBMERSIBLE WASTEWATER PUMP GENERAL REQUIREMENTS

- A. All castings for pumps and motor frames shall be free of pits, blisters, burrs, or other defects.
- B. Pumps shall be furnished with ½" NPT gauge taps on suction and discharge flanges and ¾" NPT drain taps on the volute.
- C. Review of the equipment data by the Engineer shall not relieve the Contractor or the manufacturer of responsibility for all detailed dimensions and correct fitting of all parts, or for the satisfactory operation and service of the equipment as specified.
- D. When mechanical seals are called for, the Contractor shall furnish the following packaged spare parts for each grouping of identical pumps:
 - 1. Two (2) sets of mechanical seals
 - 2. One (1) shaft sleeve
 - 3. One (1) shaft key
- E. Except on close-coupled pumps, pumps shall be connected to motors by flexible couplings of a type suitable for the service conditions.
- F. All anti-friction bearings supporting direct-driven shafting shall have a B-10 life rating of not less than 17,000 hours
- G. All bearings supporting pinion shafting, worm shafting, or other gear shafting shall have

a life of not less than 100,000 hours.

- H. All components requiring lubrication, except sealed bearings, shall be provided either with pressure grease connections of Alemite or buttonhead type or with oil cups or oil reservoirs as required.
- I. Four (4) pressure grease guns shall be furnished for this project. Guns shall be stainless steel, have 1-quart capacity, and shall be furnished with a flexible extension.
- J. Motors:
 1. Motors shall be squirrel cage, induction type, of current Characteristics as specified, and shall have horsepower ratings adequate for driving the connected units under all conditions of loading.
 2. Motors shall be guaranteed to continuously carry 115% of the rated loads without injurious heating.
 3. All motors shall be furnished with not less than Class B insulation unless otherwise noted.
 4. All motors shall have cast iron frames, shall be copper-wound, and shall be rated as "premium energy efficient" or "high energy efficient".
 5. Motors greater than 40 HP shall be protected with phase protection.
 6. Motors to be connected to VFDs shall be manufactured with an inverter grade insulation system capable of withstanding the waveform stresses produced by the VFD.
 7. Premium efficiency components shall also be used to offset the increased losses of sinusoidal input with harmonic input.
 8. All motors shall have nominal efficiency ratings as follows when tested per requirements of NEMA Mg 1-12.53a, and rating (nameplating) shall be per requirements of NEMA Mg 1-12.53b:

HORSEPOWER	NOMINAL FULL-LOAD EFFICIENCY. %**
¾	81.5
1	84.0
1½	85.5
2	86.5
3	88.5
5	88.5
7½	90.2
10	90.2
15	91.7
20	92.4
25	93.0
30	93.0

40	93.6
50	93.6
60	94.5
75 and greater	96.0

** Efficiencies may vary slightly with RPM selected.

9. The design and manufacture of all motors shall comply with the General Specifications of the A.I.E.E.
10. All motors shall have windings impregnated with moisture-proof compound, and shall be open drip-proof, splash proof, weatherproof, or totally enclosed.

3.4 DELIVERY, STORAGE, AND HANDLING

- A. Retain shipping flange protective covers and protective coatings during storage.
- B. Protect bearings and couplings against damage.
- C. Comply with the pump manufacturer's rigging instructions for handling.
- D. Each pump shall be performance tested at the manufacturer's plant before shipment.
 1. Testing will include checking the unit at its rated speed, head, capacity, efficiency, and brake horsepower, and at such other conditions of head and capacity to properly establish the performance curve.
 2. Certified copies of test curves will be submitted to the Engineer for review and approval before the shipment of any equipment to the job site.
 3. The Standard of the Hydraulic Institute shall govern the procedures and calculations for all performance testing.
- E. Submersible pumps shall be tested as follows before shipment from the factory:
 1. Impeller, motor rating, and electrical connections shall first be checked for compliance with the customer's purchase order.
 2. A motor and cable insulation test for moisture content or insulation defects shall be made.
 3. Before submergence, the pump shall be run dry to establish correct rotation and mechanical integrity.
 4. The pump shall be run for 30 minutes submerged, a minimum of six (6) feet underwater.
 5. After operational test No. 4, the insulation test (No. 2) is to be performed again.
 6. A written report stating the foregoing steps have been done shall be supplied with each pump at the time of shipment upon request. The pump cable end will be sealed with a high-quality protective covering, to make it impervious to moisture or water seepage before electrical installation.

3.5 WARRANTY

- A. Warranty Period: 5-year prorated manufacturer's warranty.

1. The warranty shall be for unlimited usage of the equipment for the specified rated capacity over the term of the warranty.

PART 4 - PRODUCTS

4.1 PUMP MANUFACTURERS

A. Manufacturers

1. Flygt
2. KSB
3. Grundfos

4.2 SUBMERSIBLE PUMPS

- A. Provide one (1) submersible pump designed to pump raw, unscreened wastewater influent. The pumps shall meet the following performance criteria:

SCUM PUMP No. 1	
Pump Information	Operating Point
Capacity (GPM):	250
TDH (ft.):	25
Motor Size (HP):	5
RPM	1760
Voltage(V)/Frequency(Hz)	460/60

- B. Pump shall be constructed of the following materials:

1. Major pump components shall be of gray cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of blow holes and other irregularities.
2. Where watertight sealing is required, o-rings made of nitrile rubber shall be used.
3. All exposed nuts and bolts shall be stainless steel 304 construction.

- C. Motor:

1. The pumps motors shall be suitable for use with variable frequency drives (VFDs). See electrical plans and specifications for all motor starter requirements.
2. The submersible pump motor shall be a squirrel-cage induction shell type design, housed in an air-filled watertight chamber.
3. The use of oil-filled motors shall not be considered an acceptable equal to the specified air-filled motor.
4. The stator winding and stator leads shall be insulated with moisture resistant Class F insulation which will resist a temperature of 180 degrees C (356 degrees F). Class A, B, or F insulation shall not be acceptable.
5. The stator shall be insulated by the trickle impregnation method using Class H

- monomer-free resin resulting in a winding fill factor of at least 95%.
6. The use of pins, bolts, or other fastening devices requiring penetration of the stator housing shall not be considered acceptable.
 7. The motor shall be designed for continuous duty and shall be capable of sustaining a minimum of fifteen (15) starts per hour, with written documentation provided to verify this.
 8. Rotor bars and short circuit rings shall be made of aluminum.
 9. The motor shall not draw more than the specified input KW at nominal voltage at utility supply quality.
 10. The junction chamber containing the terminal board shall be sealed from the motor by an elastomer compression seal (o-ring).
 11. The connection between the cable conductors and stator leads shall be made with threaded compression type binding posts permanently affixed to a terminal board and thus perfectly leakproof.
 12. Three (3) thermal sensors shall be embedded in the stator winding end coils (one per phase). These sensors shall be wired to the control panel for additional motor overload protection and shall shut down the pumps if a high temperature condition is sensed in the stator. Pump leakage sensing devices shall be provided within each pump as recommended by the pump supplier. A separate pump overtemp/leakage monitoring relay shall be provided by the pump supplier to the associated starter supplier (for mounting within the separate starter by the starter supplier). Each pump monitoring relay shall include separate dry contacts for "leakage" and "overtemp" alarms as indicated on wiring diagrams on contract documents.
- D. Pump shaft shall be AISI type 420 stainless steel.
- E. Pump finishes:
1. All surfaces in direct contact with sewage, other than stainless steel, shall be protected by an approved sewage resistant coating.
 2. Impeller shall be coated with Rilsan.
 3. Pump exterior shall be sprayed with PVC epoxy primer, with chloric rubber paint finish.
- F. All mating surfaces where watertight sealing is required shall be machined and fitted with nitrile rubber o-rings.
- G. Fitting shall be such that sealing is accomplished by metal-to-metal contact between machine surfaces.
- H. No secondary sealing compounds, rectangular gaskets, elliptical o-rings, grease or other devices shall be used.
- I. Pumps shall be equipped with a cable entry water seal design.
1. Cable entry water seal is to be completely replaceable in the field without the need for new pump components or the use of potting compounds.
 2. The cable entry shall be comprised of a single cylindrical elastomer grommet, flanked by washers, all having a close tolerance fit against the cable outside diameter and the entry inside diameter.

3. The gland shall be compressed by the entry body to provide a strain relief function, separate from the function of sealing the cable.
 4. The assembly shall bear against a shoulder in the pump top.
 5. The junction chamber and terminal board shall be separated from the motor by an o-ring seal, which shall isolate the motor interior from foreign material gaining access through the pump top.
- J. Each pump shall be provided with a tandem mechanical rotating shaft seal system.
1. Seals shall run in an oil reservoir, and lapped seal faces must be hydrodynamically lubricated at a constant rate.
 2. The lower seal unit between the pump and oil chamber shall contain one stationary and one positively driven tungsten carbide ring.
 3. The upper seal unit between the oil sump and motor housing shall contain one stationary tungsten carbide ring and one positively driven rotating carbon ring.
 4. Each interface shall be held in contact by its own spring system.
 5. The seals shall not require maintenance or adjustment and shall be easily inspected and replaceable.
 6. The following seal types shall not be considered acceptable nor equal to the dual independent seal as specified herein:
 - a. Shaft seals without positively driven rotating members
 - b. Conventional double mechanical seals containing either a common single or double spring acting between the upper and lower units.
- K. Each pump shall be provided with an oil chamber for the shaft sealing system.
1. The oil chamber shall not require a pressure equalizer ring for oil pressure compensation.
 2. Seal lubrication shall require an oil chamber capacity no greater than 11.5 pints.
 3. The drain and inspection plug, with positive anti-leak seal shall be easily accessible from the outside.
- L. The pump shaft shall rotate on two permanently lubricated bearings.
1. The upper bearing shall be a single row roller bearing and the lower bearing shall be a two-row angular contact bearing.
 2. A minimum B-10 bearing life of 17,500 hours shall be required when the pump is operating at or near the best efficiency point.
- M. The impeller shall consist of the following:
1. The impeller shall be of ASTM A-48, Class 35B grey cast iron, dynamically balanced, semi-open, multi-vane, backswept, screw-shaped, non-clog design.
 2. The impeller leading edges shall be mechanically self-cleaned automatically upon each rotation as they pass across a spiral groove located in the pump volute.
 3. The leading edges of the impeller shall be hardened to Rc 45 and shall be capable of handling solids, fibrous materials, heavy sludge, and other matter normally found in wastewater. The screw shape of the impeller inlet shall provide an inducing effect for the handling of up to 5% sludge and rag-laden wastewater.
 4. The impeller to volute clearance shall be readily adjustable by the means of a single

trim screw.

5. The impeller shall be locked to the shaft, held by an impeller bolt.
6. The volute shall have a replaceable insert ring in which are cast spiral-shaped, sharp-edged grooves. The spiral grooves shall provide trash release pathways and sharp edges across which each impeller vane leading edge shall cross during rotation to remain unobstructed. The insert ring shall be of cast ASTM A-48, Class 35B, and provide effective sealing between the multi-vane semi-open impeller and the volute housing.

N. The volute shall consist of the following:

1. The Volute shall be of single piece design and shall have smooth fluid passages large enough at all points to pass any size solids which can pass through the impeller.
2. A wear ring system shall be installed to provide efficient sealing between the volute and impeller. The wear ring shall consist of a stationary ring made of nitrile rubber molded with a steel ring insert which is drive fitted to the volute inlet.

O. Each pump shall be provided with an adequately designed cooling system consisting of the following:

1. A stainless steel motor cooling jacket shall encircle the motor housing, providing for dissipation of motor heat regardless of the type of pump installation.
2. An impeller, integral to the cooling system and driven by the pump shaft, shall provide the necessary circulation of the cooling liquid through the jacket. The cooling liquid shall pass about the stator housing in the closed-loop system in turbulent flow providing for superior heat transfer.
3. The cooling system shall have one fill port and one drain port integral to the cooling jacket.
4. The cooling system shall provide for continuous pump operation in liquid or ambient temperatures of up to 104°F (40°C). Operational restrictions at temperatures below 104°F are not acceptable. Fans, blowers, or auxiliary cooling systems that are mounted external to the pump motor are not acceptable.

4.3 CLEANING AND PROTECTING

- A. Restore marred, abraded surfaces to their original condition or replace them with new ones.
- B. Provide final protection and maintain conditions, in a manner acceptable to Manufacturer and Installer, that ensure equipment is without damage or deterioration at the time of Substantial Completion.

4.4 START-UP ASSISTANCE AND TRAINING

- A. Startup Services: Engage a factory-authorized service representative to perform startup services and to train the Owner's maintenance personnel as specified below:
 1. Factory authorized service representatives of the equipment Manufacturer shall perform all necessary on-site assistance for installation supervision.
 - a. One (1) day minimum to inspect the completed installation and note any

- deficiencies.
- b. Complete and provide the Owner with a copy of an installation report.
 - c. Should deficiencies be noted, the Contractor shall correct the deficiencies and the service representative shall confirm in writing that the deficiencies have been corrected. If the representative should require additional time on site to review the corrected deficiencies the costs for additional time on site shall be the responsibility of the Contractor.
2. Once the equipment has been installed correctly and is operating as intended, the service representatives shall perform a minimum of sixteen (16) hours on-site for start-up and training services. If additional time is required for start-up and training services, the cost shall be the responsibility of the Contractor.
- a. Train the Owner's personnel on procedures and schedules related to troubleshooting, servicing, and preventive maintenance.
 - b. Schedule training with the Owner with at least seven days advance notice.
 - c. Training sessions shall include, but not be limited to, a classroom session and a hands-on session.
 - d. The Owner training shall be video-recorded with a high-definition camera and lapel microphone. Cell phone recordings will not be acceptable. Video files shall be submitted for review and approval.

END OF SECTION 44 43 006



CITY OF FAIRHOPE
FAIRHOPE WWTP HEADWORKS IMPROVEMENTS
FAIRHOPE, ALABAMA

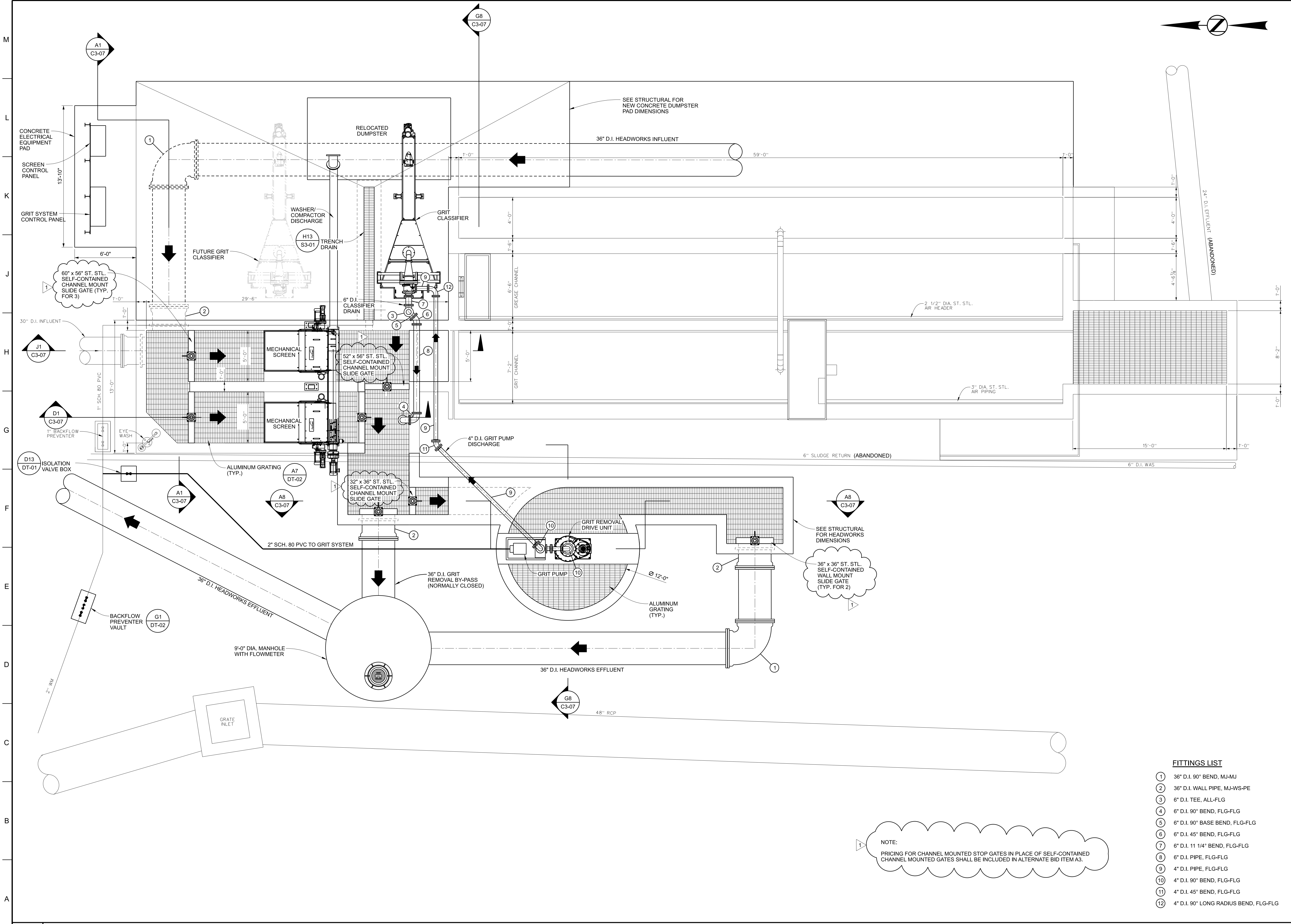


Designed	DRV	Project No.	23045
Drawn	JAR / CLM		
Checked	OLL		

Revisions	No.	Date	Description
	1	8/23/24	ADDENDUM No. 1

HEADWORKS IMPROVEMENTS PLAN (BASE BID)

Issue Date	AUG., 2024	Sheet No.	C3-06
Sequence	15 of 49		



- FITTINGS LIST**
- ① 36" D.I. 90° BEND, MJ-MJ
 - ② 36" D.I. WALL PIPE, MJ-WS-PE
 - ③ 6" D.I. TEE, ALL-FLG
 - ④ 6" D.I. 90° BEND, FLG-FLG
 - ⑤ 6" D.I. 90° BASE BEND, FLG-FLG
 - ⑥ 6" D.I. 45° BEND, FLG-FLG
 - ⑦ 6" D.I. 11 1/4" BEND, FLG-FLG
 - ⑧ 6" D.I. PIPE, FLG-FLG
 - ⑨ 4" D.I. PIPE, FLG-FLG
 - ⑩ 4" D.I. 90° BEND, FLG-FLG
 - ⑪ 4" D.I. 45° BEND, FLG-FLG
 - ⑫ 4" D.I. 90° LONG RADIUS BEND, FLG-FLG

NOTE:
 PRICING FOR CHANNEL MOUNTED STOP GATES IN PLACE OF SELF-CONTAINED CHANNEL MOUNTED GATES SHALL BE INCLUDED IN ALTERNATE BID ITEM A3.

A1 PLAN 1/4" = 1'-0"

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