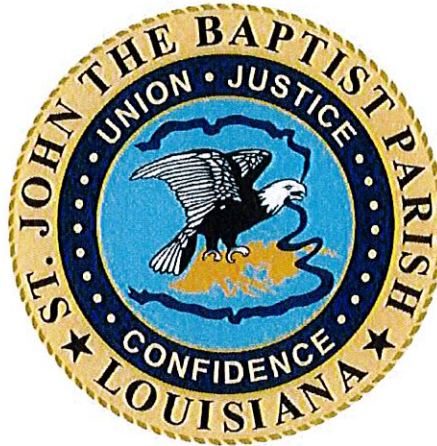


St. John The Baptist Parish

CONTRACT DOCUMENTS and SPECIFICATIONS

FOR

River Road Wastewater Treatment Plant Mobile Belt Filter Press Project



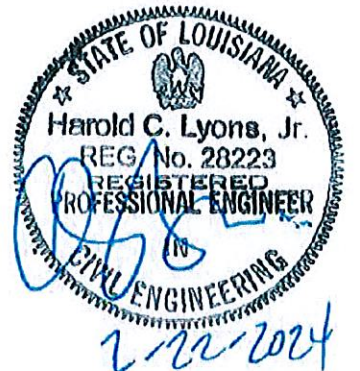
LOUISIANA DEPT OF ENVIRONMENTAL QUALITY
Will Barlett 3/21/24
APPROVED DATE
Scott J. Temple 3/25/2024
CERTIFIED DATE

FEBRUARY
2024

PREPARED BY:



DIGITAL ENGINEERING & IMAGING, INC.



ADVERTISEMENT FOR BID
ST. JOHN THE BAPTIST PARISH

River Road Wastewater Treatment Plant
Mobile Belt Filter Press Project

Sealed Bids will be received by St. John the Baptist Parish Purchasing and Procurement Department in St. John the Baptist Parish Government Complex Building, 1811 W. Airline Highway, LaPlace, La. 70068, at the receptionist's desk, or electronically submitted on www.centralbidding.com until **9:45 A.M. Local Time, May 10, 2024.**

Bids shall be addressed to the St. John the Baptist Parish Purchasing and Procurement. Bid envelopes shall be sealed, display the name and address of the bidder, and be clearly marked on the outside of the envelope "**River Road Wastewater Treatment Plant Mobile Belt Filter Press Project**". Any bids received after the specified time and date will not be considered. The sealed bids will be publicly opened and read aloud at **10:00 A.M. Local Time May 10, 2024,** in the St. John the Baptist Parish Government Complex Council Chambers located at 1811 W. Airline Highway, LaPlace, LA 70068.

Bid documents may be viewed on or downloaded from the parish website, www.sjbparish.com; obtained by contacting Peter Montz or Mellissa Tassara at the above address, phone 985-652-9569, or p.montz@Stjohn-la.gov or m.tassara@Stjohn-la.gov or downloaded and Bids electronically submitted on www.centralbidding.com.

A non-mandatory Pre-Bid Conference will be held at **1811 W. Airline Highway, LaPlace, LA 70068** on **April 26, 2024 at 10:00 A.M.**

Questions and comments regarding this Bid must be submitted in writing to St. John the Baptist Parish, Purchasing & Procurement Department, **ATTN: Peter Montz, 1811 West Airline Highway, LaPlace, LA 70068** or via e-mail to p.montz@Stjohn-la.gov no later than **10:00 A.M. local time on May 2, 2024.**

Contractors submitting bids shall be licensed under LA R.S. 37:2150-2164, Municipal and Public Works Construction

The Owner reserves the right to reject any and all bids for just cause; such actions will be in accordance with Title 38 of the Louisiana Revised Statutes. In accordance with R.S. 38:2212(A)(1)(b), the provisions and requirements stated in the Bidding Documents shall not be waived by any entity.

No bidder may withdraw his/her bid within forty-five (45) days after the actual date of the opening thereof, except as provided under LA. R.S. 38:2214.

Equal Opportunity in Employment: All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, genetics, disability, or veteran status.

Participation by minority and female owned businesses, as well as businesses located in St. John the Baptist Parish is encouraged.

Any person with disabilities requiring Special Accommodations must contact St. John the Baptist Parish at (985) 652-9569 no later than seven (7) days prior to bid opening.

ST. JOHN THE BAPTIST PARISH COUNCIL

Publish:

April 10, 2024

April 17, 2024

April 24, 2024

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Section 01

Information for Bidders

River Road Wastewater Treatment Plant Mobile Belt Filter Press Project

SUMMARY OF WORK

This project consists of furnishing all supervision, labor, equipment, materials, and other resources necessary to furnish a complete sludge dewatering system consisting of one (1) Mobile Belt Filter Press complete with ancillary equipment, operation/maintenance manuals, spare parts (if specified), training, performance testing, and delivery to the St. John the Baptist Parish River Road Wastewater Treatment Plant facility located at 144 Water Plant Road; LaPlace, Louisiana 70068.

Contractors shall hold a current Louisiana Contractors License with a classification in Municipal and Public Works and/or Industrial Cleaning and Material Waste Handling.

Any required electrical work or services shall be performed by a licensed electrician in Louisiana. The use of qualified subcontractors, acceptable to the Owner, can be utilized to perform any required electrical work or services upon proof of all required license and certification documentation.

The BID package includes the following:

1. Public Works Bid Form
2. Bid Bond
3. Corporate Resolution or Certificate of Authority

Past Criminal Convictions Attestation*
Non-Solicitation and Unemployment Affidavit*
Certificate Regarding Debarment*
E-Verify Affidavit*
Required Federal Certifications in Section 7.2*

*These documents are due to St. John the Baptist Parish within 10 days after bid opening. They are not required to be submitted with the BID.

General Information

1.0 BID PREPARATION

- 1.1 This BID is subject to all applicable state and local laws, including the Louisiana Code of Governmental Ethics.
- 1.2 BID package, associated documents and addenda may be obtained from the design Engineer at Digital Engineering & Imaging, Inc.; 527 West Esplanade Ave., Suite 200; Metairie, LA 70065 or by downloading from the Parish's website at www.sjbparish.com or Central Bidding at www.centralbidding.com. Electronic BIDS will be accepted only on www.centralbidding.com.

- 1.3 No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally. Written addenda to the BID may be issued to provide clarification, corrections, or to answer questions. Any addenda issued will be emailed to plan holders and posted to the Central Bidding website.
- 1.4 Questions and comments regarding this BID must be submitted in writing to St. John the Baptist Parish, Purchasing & Procurement Department, **ATTN: Peter Montz, 1811 West Airline Highway, LaPlace, LA 70068** or via e-mail to p.montz@stjohn-la.gov no later than **10:00 A.M. Local Time May 2, 2024**.
- 1.5 Each bid must be submitted on the prescribed form. All blank spaces for bid prices must be filled in, in ink or typewritten, in both words and figures.
- 1.6 Conditions of Work: Each bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his obligation to furnish all materials and labor necessary to carry out the provisions of his contract. Insofar as possible the contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.
- 1.7 Laws and Regulations: All applicable State laws, municipal ordinances and rules and regulations of authorities having jurisdiction over construction of the project shall apply to the contract throughout and will be deemed to be included in the contract the same as written herein in full.
- 1.8 Subcontractors: The bidder is specifically advised that any person for or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Owner.
- 1.9 Determination of Unit and Extended Prices: In unit price bids, the total amount bid shall be in the sum of the correct extensions of the unit price bid on each item of work multiplied by the approximate quantity of work shown for the respective item. Each extension shall be carried to one hundredth of a dollar, and the last digit in the extension (or cents' place) shall not be rounded off.
- 1.10 Erasures: The bid submitted must not contain erasures. Any and all interlineations or other corrections shall be suitably authenticated by affixing in the margin immediately opposite the correction the initials of the person or persons signing the bid.
- 1.11 Prices: In the event of a discrepancy between the prices quoted in words and those quoted in figures in the bid, the words shall control. The prices are to include the furnishing of all materials, plant, equipment, tools, and all other facilities, and the performance of all labor and services necessary or proper for the completion of the work except as may be otherwise expressly provided in the contract documents.
- 1.12 Qualifications of Bidder: The Owner may make such investigations deemed necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is responsible and is properly qualified to carry out the obligations of the contract and complete the work contemplated therein. Any conditions placed on a submitted bid shall result in rejection of such bid.
- 1.13 Bid Security: Each bid must be accompanied by cashier's check or certified check of the bidder, or a bid bond, duly executed by the bidder as principal and having as surety thereon a surety company approved by the Owner, in the amount of 5 percent of the bid made payable to the Owner. Such

cashier's checks, certified checks, or bid bonds will be returned to all except the three lowest bidders within three days after the opening of bids, and the remaining cashier's checks, certified checks, or bid bonds will be returned promptly after the Owner and the accepted bidder have executed the contract, or, if no award has been made within 45 days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid. Sureties used for obtaining bonds must appear as acceptable on the U.S. Department of the Treasury Circular 570.

1.14 Liquidated Damages for Failure to Enter into Contract: The successful bidder, upon his failure or refusal to execute and deliver the contract and bonds within 10 days after he receives notice of the acceptance of his bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his bid.

2.0 Submission of BID

2.1 Electronic BIDS shall be accepted only on www.centralbidding.com and/or Paper BIDs shall be addressed to St. John the Baptist Parish and delivered to the receptionist located in the St. John the Baptist Parish Government Complex, 1811 West Airline Hwy., LaPlace, LA 70068 no later than **9:45 A.M. local time on May 10, 2024.**

2.2 BID package must be submitted in a sealed envelope or package clearly marked with the Bidder's name and address, and **"River Road Wastewater Treatment Plant Mobile Belt Filter Press Project"**.

2.3 The Parish will not be responsible for submissions forwarded through the U.S. Postal Service or any delivery service if lost in transit at any time before submission opening, or if hand-delivered to the incorrect location.

2.4 BIDs submitted by facsimile (FAX) or e-mail will not be accepted. Any BID received after **9:45 A.M. local time on May 10, 2024** will be deemed unresponsive and will be returned to Company unopened.

2.5 Per LA R.S. 38:2212(B)(2), the bidding documents shall require only the following to be submitted by a bidder on a public works project:

- Completed Louisiana Uniform Bid Form
- Bid Security or Bid Bond
- Acknowledgement of Addenda
- Base Bid
- Alternates
- Signature of Bidder
- Name, Title, and Address of Bidder
- Name of Firm or Joint Venture
- Corporate Resolution or written evidence of the authority of the person signing the bid
- Louisiana Contractor's License Number

2.6 Contractors submitting bids shall be licensed under LA R.S.37:2150-2164 in Municipal and Public Works and/or Industrial Cleaning and Material Waste Handling.

If the Parish adds any additional requirements for information, unless mandated by State or Federal requirements, they shall be part of the ten day documents submittal package.

3.0 Pre-BID Conference

A non-mandatory Pre-Bid Conference will be held at 1811 West Airline Highway, LaPlace, LA 70068 on April 26, 2024 at 10:00 A.M. local time.

4.0 Opening

BIDs will be opened publicly at 10:00 A.M. local time on May 10, 2024 in the St. John the Baptist Parish Government Building, 1811 W. Airline Highway, LaPlace, LA 70068.

5.0 Public Disclosure

It is understood and agreed upon by the Company in submitting a BID that the Parish has the right to withhold all information regarding this procurement until after contract award, including but not limited to: the number received; competitive technical information; competitive price information; and the Parish's evaluation concerns about competing BIDs. Information releasable after award is subject to the disclosure requirements of the Louisiana Public Records Act. Company specifically waives any claims against Parish related to the disclosure of any materials if made under a public records request.

6.0 Parish Commitment

6.1 The Owner reserves the right to reject any and all bids for just cause; such actions will be in accordance with Title 38 of the Louisiana Revised Statutes. In accordance with R.S. 38:2212 (A)(1)(b), the provisions and requirements stated in the Bidding Documents shall not be waived by any entity.

6.2 The Parish reserves the right to terminate this BID at any time prior to contract execution.

6.3 No prior, current, or post-award verbal conversation or agreement(s) with any officer, agent, or employee of the Parish shall affect or modify any terms or obligations of this BID, or any contract resulting from this procurement.

6.4 The Parish reserves the right to revise any part of the BID by issuing an addendum to the BID at any time in accordance with relevant Louisiana Revised Statutes. Issuance of this BID in no way constitutes a commitment by the Parish to award a contract. The Parish reserves the right to accept or reject, in whole or part, all BIDs submitted, and/or cancel this announcement if it is determined to be in the Parish's best interest. All materials submitted in response to this announcement become the property of the Parish, and selection or rejection of a submittal does not affect this right.

7.0 Late, Modified, or Withdrawn BIDs

7.1 Any BID received after the exact time specified for receipt will not be accepted or opened.

7.2 No modification of a BID will be accepted.

7.3 No bidder may withdraw his/her bid within forty-five (45) days after the actual date of the opening thereof, except as provided under LA. R.S. 38:2214.

8.0 Evaluation and Selection

The Parish Administration will present its recommendation to St. John the Baptist Parish Council for award. This award will be made to the lowest responsive and responsible Bidder. The Parish also reserves the right to reject any and all BIDs.

9.0 Time of Completion and Liquidated Damages

The Owner will issue an Administrative Notice to Proceed authorizing the Contractor to initiate the submittal review process and place any necessary material and equipment orders. The Contractor shall provide the Owner with a schedule of all material and equipment orders and provide periodic updates should any changes occur. Upon confirmation of delivery of all required equipment to the job site a full Notice to Proceed for construction will be issued authorizing the Contractor to commence with all work and services as required by the Contract Documents. The Contractor shall complete all work under the Contract within thirty (30) calendar days from the date of the official "Notice to Proceed." Bidder must agree to pay as liquidated damages the sum of **\$250.00** for each consecutive calendar day thereafter until acceptance as hereinafter provided.

10.0 Security for Faithful Performance

Simultaneously with his delivery of the executed contract, the successful bidder shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner. Only those surety companies currently on the U. S. Department of Treasury Financial Management Services list (Circular 570) of approved bonding companies will be accepted. The agent selling the bond must be currently licensed to do business in Louisiana. This will be verified by the Owner.

The successful bidder will be required to file a performance bond in the full amount (100-percent) of the contract price for the full period of the contract and a payment bond in the full amount (100-percent) of the contract price for the full period of the contract.

11.0 Power of Attorney

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

12.0 Insurance

Bidder shall obtain, pay for and keep in force, at its own expense, minimum insurance effective in all localities where Consultant/Company may perform the work hereunder, with such carriers as shall be acceptable to Council:

- A. **Statutory Workman's Compensation** covering all state and local requirements and Employer's Liability Insurance covering all persons employed by Consultant/Company in connection with this agreement.

The limits for "A" above shall be not less than:

- 1. Employer's liability limits of \$1,000,000/\$1,000,000/\$1,000,000
- 2. Some contracts may require USL&H or maritime coverage. This should be verified with Insurance Department/Legal Dept.
- 3. No excluded classes of owners/officers or employees shall be allowed on Council's premises.

WAIVER OF SUBROGATION in favor of St. John the Baptist Parish Council should be indicated on certificate.

- B. **Commercial General Liability**, including:

- 1. Contractual liability assumed by this agreement
- 2. Owner's and Contractor's Protective Liability (if Contractor is a General Contractor) may be required.
- 3. Personal and advertising liability
- 4. Completed operations
- 5. Medical payments

The limits for "B" above shall not be less than:

- 1. \$5,000,000 each occurrence limit
- 2. \$5,000,000 general aggregate limit

3. \$5,000,000 products/completed operations aggregate limit
4. \$1,000,000 personal and advertising injury limit
5. \$50,000 fire damage limit
6. \$5,000 medical expense limit (desirable but not mandatory)

St. John the Baptist Parish Council will be NAMED as additional insured and WAIVER OF SUBROGATION in favor of St. John the Baptist Parish Council should be indicated on certificate.

Some contracts may require Protection and Indemnity coverage. This should be verified with Insurance Department/Legal Dept.

- C. **Comprehensive Automobile Liability** covering all owned, hired and other non-owned vehicles of the Company.

The limits for "C" above shall not be less than:

1. \$500,000 per occurrence for bodily injury and property damage

This insurance shall include for bodily injury and property damage the following coverages:

1. Any automobiles;
2. Owned automobiles;
3. Hired automobiles;
4. Non-owned automobiles.

St. John the Baptist Parish Council will be NAMED as additional insured and WAIVER OF SUBROGATION in favor of St. John the Baptist Parish Council should be included on certificate.

WAIVER OF SUBROGATION in favor of St. John the Baptist Parish Council shall be included on the Certificate.

OTHER SPECIFIC COVERAGE RELATED TO THE TASK BEING PERFORMED MAY BE REQUIRED.

All required insurance certificates shall be submitted to the Director of Purchasing & Procurement prior to commencement of work. Company shall maintain insurance in full force and effect during the entire period of performance of work. All policies must have a thirty (30) day non-cancellation clause giving the Parish thirty (30) days prior written notice in the event a policy is changed or canceled.

- D. **Professional Liability Insurance** covering the Wrongful Acts of those professional firms and individuals performing services for St. John the Baptist Parish. Certain classifications of service providers will be required to provide evidence of Professional Liability Insurance. Examples of these providers include but are not limited to: Professional Engineers, Architects, Land Surveyors, Attorneys, and IT Consultants.

The limits for "D" above shall not be less than: \$1,000,000 CSL

WAIVER OF SUBROGATION in favor of St. John the Baptist Parish Council shall be included on the Certificate.

- E. **Builders All Risk Insurance**: The contractor shall acquire Builders All Risk coverage, which provides all risk coverage for direct physical loss or damage to buildings/contents or structures during the course of construction.

F: Owner's and Contractor's Protective Liability Insurance: Refer to General Conditions Section 5.4.1.7.

13.0 Submittals Required After Bid Opening

Failure of the apparent low bidder to provide the following documentation any later than 10 days after the bid is opened shall be cause to declare the apparent low bidder non-responsive and award the bid to the next lowest bidder. (Pursuant to LA RS 38:2212)

- Past Criminal Convictions of Bidders Attestation

- Non-Solicitation and Unemployment Affidavit
- E-Verify Form
- Certification Regarding Debarment, Suspension, Lobbying, and Other Responsibility Matters

14.0 Invoices

Applications for Payment will be processed by St. John the Baptist Parish.

Itemized invoices for payment of these services shall be submitted to the Assistant Director of Utilities for approval prior to routing to Accounts Payable. Construction invoices shall be submitted using the AIA Application and Certification for Payment AIA G702 and AIAG703 forms unless otherwise determined.

St. John the Baptist Parish shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, as provided below. All such payments will be measured by the schedule of values established.

St. John the Baptist Parish shall retain the following percentages of each progress payment until payment is due under the terms and conditions governing retainage payment:

CONTRACT AMOUNT	RETAINAGE
\$0 - \$499,999.99	10%
\$500,000.00 – Over	5%

Refer to the Contract Documents and provisions under in the General Conditions Article 6 titled "Contractor's Responsibilities" and Article 14 titled "Payments to Contractor and Completion", in addition to any other pertinent provision of the General Conditions, for the requirements associated with the approval of work and completion of all corrective work to the satisfaction of the ENGINEER, submittal and processing of Applications for Payment, and procedures for progress payments and release of final payment, inclusive of CONTRACTOR required deliverables.

Certified payroll reports shall be provided as required to comply with the Davis Bacon Act.

15.0 Hold Harmless

To the fullest extent permitted by law, Company shall indemnify, hold harmless, and defend the Parish Council and all of its Agents and Employees, from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from performance of the work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of Company.

16.0 Non-assignability

No Company shall assign any interest in this contract by assignment, transfer, or novation, without prior written consent of the Parish. This provision shall not be construed to prohibit the contractor from assigning his bank, trust company, or other financial institution any money due or to become due from approved contracts without such prior written consent. Notice of any such assignment or transfer shall be furnished promptly to the Parish.

17.0 Exclusions

Pursuant to Louisiana Revised Statute 38:2227, Contractor must certify that he has not been convicted of, or has not entered into a plea of guilty or nolo contendere to public bribery, corrupt influencing, extortion, money laundering or their equivalent Federal crimes. Consultant must further certify that he has not been convicted of, or has not entered into a plea of guilty or nolo contendere to theft, identify theft, theft of a business record, false accounting, issuing worthless checks, bank fraud, forgery; contractors' misapplication of payments, malfeasance in office, or their equivalent Federal crimes within the five (5) years prior to submitting the BID.

18.0 Disclosure

Company must disclose whether it provides services or pays commissions to any employee or elected official of St. John the Baptist Parish. If so, company must disclose to whom services are provided and/or commissions are paid. Both positive and negative responses must be submitted.

19.0 Termination for Cause and Convenience

Bidder acknowledges this contract contains termination provisions including the manner in which termination shall be affected and the basis for settlement. In addition, such provisions shall describe conditions for termination due to fault and for termination due to circumstances outside the bidder's control.

20.0 Severability Clause

If any one or more of the provisions contained in this Agreement shall, for any reasons, be held to be invalid, illegal or unenforceable, in whole or in part, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Agreement, and in such an event, this Agreement shall be construed as if such invalid, illegal, or unenforceable provisions had never been contained herein.

21.0 Venue

This Agreement shall be governed by the laws of the State of Louisiana. Proper venue for any lawsuit arising under the terms of this Agreement shall be the Fortieth Judicial District Court, St. John the Baptist Parish and any appropriate Appellate therefrom. Bidder hereby agrees and consents to personal and/or in rem jurisdiction of the trial and appropriate Appellate courts.

22.0 Discrimination Clause

The Bidder agrees to abide by the requirements of the following as applicable: Title VI of the Civil Rights Act of 1964 and Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972, Federal Executive Order 11246 as amended, the Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, the Fair Housing Act of 1968 as amended, and Bidder agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

26.0 Federal Contract Requirements

The bidder's attention is directed to **Section 07.1** for Federal Contract Requirements which are applicable to this project.

27.0 Explanation of Six Good Faith Efforts

It is a Federal requirement that all procurement made with Federal funds utilize six (6) good faith efforts to utilize disadvantaged business enterprises (DBE's) in the areas of construction, services, equipment, and supplies as follows:

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

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

The PRO-Net database can be accessed by typing www.sba.gov to reach the SBA Webpage. The PRO-Net database allows you to conduct a search for firms based on a number of criteria such as locality, SIC codes, bonding capability, etc. This database also allows you to locate firms that have been certified through the 8(a) program which certifies that the company has at least 2 years experience, has adequate financing and bonding to perform, and has references from previous jobs. If you do not have Internet access, you can contact the New Orleans office of the SBA at (504) 589-2847.

The MBDA also maintains a database which can be accessed by typing www.mbda.gov to reach their opportunity database. Information you submit to this database about the job you have for MBE/WBE participation will be compared with information in the Phoenix database of minority companies. When a match is made, the eligible minority companies will receive a copy of your opportunity by email and/or fax and you will receive (via email or fax) a list of the minority companies to which your opportunity has been referred. The phone number for the MBDA is (214) 767-8001.

The Louisiana Department of Transportation and Development (DOTD) also has an online list of DBE firms that have been certified by DOTD. Typing www.dotd.state.la.us/cgibin/construction.cgi will take you to the site where you can select the most current list of DBE firms. The phone number for DOTD is (225) 379-1382.

The successful bidder must provide documentation to demonstrate that the affirmative action steps were pursued. Documentation might include records of telephone calls, records of utilization of the MBDA and SBA Web sites, and relevant correspondence. Where DBEs are contacted but not utilized, an explanation as to why each one contacted was not utilized should be provided.

28.0 Suspension and Debarment

(1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

(2) The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(3) This certification is a material representation of fact relied upon by the parish. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the PARISH, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

(4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions. a. Standard. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds.

29.0 E-Verify Program

Pursuant to Louisiana Revised Statute 38:2212.10, contractor must certify that it and each individual, firm or corporation associated with it and engaged in the physical performance of services in the State of Louisiana, under a contract with St. John the Baptist Parish has registered with, is participating in, and shall continue to participate in a federal work authorization program designated as such under the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as amended, which is operated by the United States Department of Homeland Security, known as the "E-Verify" program. Contractor must verify the legal status of all existing and new employees in the State of Louisiana by attesting herein that each is a citizen of the United States or legal aliens as defined by now effective immigration laws of the United States of America.

30.0 Tax Exempt

Pursuant to Louisiana Revised Statute 47:301(8)(c) the St. John the Baptist Parish Government, being a political subdivision, is exempted from sales tax levied by the State. The successful bidder will be issued a Louisiana Department of Revenue form R-1020, designating the Contractor as an agent of St. John the Baptist Parish for the exemption of sales tax.

31.0 Substantial Completion

Substantial Completion shall be granted once the Parish, or its designated design consultant, identifies the project to be at the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. It is the responsibility of the Contractor to notify the Parish, and its designated design consultant, when the Contractor is of the opinion the project is substantially complete. Once determined the Work is identified as substantially complete a Certificate of Substantial Completion AIA G704 or other acceptable will be issued.

32.0. Site Visit: Interested bidders shall contact Mr. Reed Alexander to schedule a site visit. His contact information is r.alexander@st-john-la.gov, or at (504) 457-1219.

INFORMATION PAGE

Bidder Information Form

Today's Date: _____

Name of Bid: _____

Company Name: _____

Primary Contact Person: _____

Mailing Address: _____

City: _____ **State:** _____ **Zip:** _____

Business Phone: _____

Primary Contact Cell Phone: _____

E-Mail Address: _____

Section 02

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: St. John the Baptist Parish
1811 W. Airline Hwy
Laplace, LA 70068

(Owner to provide name and address of owner)

BID FOR: St. John the Baptist Parish
River Road Wastewater Treatment Plant
Mobile Belt Filter Press Project

(Owner to provide name of project and other identifying information.)

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: Digital Engineering & Imaging, Inc. and dated: February 2024.

(Owner to provide name of entity preparing bidding documents.)

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:** (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) _____.

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" * but not alternates) the sum of: _____ Dollars (\$ _____)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of: _____ Dollars (\$ _____)

Alternate No. 2 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of: _____ Dollars (\$ _____)

Alternate No. 3 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of: _____ Dollars (\$ _____)

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: _____

DATE: _____

THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** **A CORPORATE RESOLUTION OR WRITTEN EVIDENCE** of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

BID SECURITY in the form of a bid bond, certified check or cashier's check as prescribed by LA R.S. 38:2218(A) attached to and made a part of this bid

**LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM**

TO: St. John the Baptist Parish
1811 W. Airline Hwy
Laplace, LA 70068
(Owner to provide name and address of owner)

BID FOR: St. John the Baptist Parish
River Road Wastewater Treatment Plant
Mobile Belt Filter Press Project
(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or ___ Alt. # ___ MOBILE BELT FILTER PRESS				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
1	1	LS		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or ___ Alt. # ___ EQUIPMENT SET-UP AND INSTALLATION				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
2	1	LS		

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ EQUIPMENT START-UP AND PERFORMANCE TESTING				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
3	1	LS		

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ N/A				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
N/A				

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ N/A				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
N/A				

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ N/A				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
N/A				

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ N/A				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
N/A				

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ N/A				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
N/A				

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ N/A				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
N/A				

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ N/A				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
N/A				

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ N/A				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
N/A				

DESCRIPTION: ___ Base Bid or ___ Alt. # ___ N/A				
REF. NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
N/A				

Wording for "DESCRIPTION" is to be provided by the Owner.
All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

Section 03

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

as PRINCIPAL, and _____ as SURETY, are hereby held and firmly bound unto **St. John the Baptist Parish** as OWNER in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns. Signed, this ____ day of _____, 20__.

The condition of the above obligation is such that whereas the PRINCIPAL has submitted to **St. John the Baptist Parish** a certain BID, attached hereto and hereby made a part hereof to enter into a CONTRACT in writing, for **River Road Wastewater Treatment Plant Mobile Belt Filter Press Project**.

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the PRINCIPAL shall execute and deliver a CONTRACT in the FORM OF CONTRACT attachment hereto properly completed in accordance with said BID and shall furnish a BOND for faithful performance of said CONTRACT, and for the payment of all persons performing labor and furnishing materials in connection therewith, and shall in all other respects perform the AGREEMENT created by the acceptance of said BID.

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the SURETY for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The SURETY, for value received, hereby stipulates and agrees that the obligations of said SURETY and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said SURETY does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the PRINCIPAL and the SURETY have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and to be signed by their proper officers, the day and year first set forth above.

Principal

Witness

By: _____

Surety

Witness

By: _____

IMPORTANT - SURETY companies executing BONDS must appear on the U.S. Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

Section 03.1

CORPORATE RESOLUTION

(Corporations must use and submit their form)

1. The named signatory is the same individual authorized to sign pursuant to the contract language in the appearance clause.
2. An officer listed on the Corporation's Secretary of State listing has certified the Corporate Resolution.
3. The corporate resolution shall not be more than one year old.
4. The company properly grants authority to a named individual to sign on behalf of the company (authority granted by a corporation is granted through its board of directors).
5. Document shall be submitted with the submittal.

CERTIFICATE OF AUTHORITY

(LLC must use and submit their form)

1. The named signatory is the same individual authorized to sign pursuant to the contract language in the appearance clause.
2. An officer listed on the LLC's Secretary of State listing has certified the Certificate of Authority.
3. The Certificate of Authority shall not be more than one year old.
4. The Certificate of Authority is notarized.
5. The company properly grants authority to a named individual to sign on behalf of the company.
6. Document shall be submitted with the submittal.

Section 03.2

PAST CRIMINAL CONVICTIONS OF BIDDERS ATTESTATION (LA. R.S. 38:2227)

STATE OF LOUISIANA
PARISH OF _____

BEFORE ME, the undersigned Notary Public PERSONALLY CAME AND APPEARED,

I, _____, (Appeared) the owner/authorized representative of

Submitter/ Individual / Legal Entity Name

Appeared, as a Bidder on the herein named Project, does hereby attest that:

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named herein, including any silent or dormant owner or manager, has been convicted of, or has entered a plea of guilty or nolo contendere to, any of the following state crimes or equivalent federal crimes:

- (a) Public bribery (R.S. 14:118)
- (b) Corrupt influencing (R.S. 14:120)
- (c) Extortion (R.S. 14:66)
- (d) Money laundering (R.S. 14:230)

B. For five years prior to the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named herein, including any silent or dormant owner or manager, has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

- (a) Theft (R.S. 14:67)
- (b) Identity Theft (R.S. 14:67.16)
- (c) Theft of business record (R.S. 14:67.20)
- (d) False accounting (R.S. 14:70)
- (e) Submitter’s misapplication of payments (R.S. 14:202)
- (f) Bank fraud (R.S. 14:71.1)
- (g) Forgery (R.S. 14:72)
- (h) Issuing worthless checks (R.S.14:71)
- (i) Malfeasance in office (R.S. 14:134)

Name of Bidder

Signature of Authorized Signatory of Bidder

Project Name/Number

Title of Authorized Signatory

SUBSCRIBED AND SWORN BEFORE ME ON THIS _____ DAY OF _____, 20_____.

Notary Signature

Printed Notary Name: _____

Notary/Bar Roll Number: _____

My Commission is For/Expires: _____

Section 03.3

**ST. JOHN THE BAPTIST PARISH
NON-SOLICITATION AND UNEMPLOYMENT AFFIDAVIT
(Pursuant to La. R.S. 38:2224 and La. R.S. 23:1726(B))**

STATE OF _____

PARISH/COUNTY OF _____

Before me, the undersigned authority, came and appeared,

I, _____, the owner/authorized representative of

Company/Individual/Legal Entity Name

who, being first duly sworn, deposed and state that I personally and as an authorized representative of the above identified legal person executes this continuing affidavit stating that neither the above named Submitter nor a person acting on its behalf, either directly or indirectly, employed, paid, nor promised any gift, consideration or commission to any person or legal entity to procure or assist in procuring this public contract, other than persons regularly employed by Submitter whose services were in the regular course of their duties for Submitter in connection with the construction, alteration or demolition of a public building or project.

The above named Submitter, if awarded, continually affirms that no part of the contract price received by Submitter was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services were in the regular course of their duties for Submitter.

The above named Submitter hereby attests and certifies that it does not have any unpaid assessment or penalty levied against it regarding unemployment compensation and currently does and will continue to properly classify each employee.

_____ Signature of Authorized Signatory	SUBSCRIBED AND SWORN BEFORE ME ON THIS
_____ Printed Name of Signatory	_____ DAY OF _____ 2020.
_____ Title of Authorized Signatory	_____ Notary Signature
_____ Project Name/Number	Printed Notary Name: _____
	Notary/Bar Roll Number: _____
	My Commission is for/expires on: _____

Submitter verifies that Submitter will collect an affidavit in this form from any approved sub-contractor and forward a copy to: Saint John the Baptist Parish, 1811 West Airline Hwy, LaPlace, Louisiana 70068, no later than five business days after contracting with its sub-contractor; however, in no instance shall the affidavit be received after commencement of work by the sub-contractor.

Section 03.4

E-VERIFY AFFIDAVIT

STATE OF LOUISIANA

PARISH OF _____

BEFORE ME, the undersigned Notary Public PERSONALLY CAME AND APPEARED,

I, _____, the owner/authorized representative of

Company/Individual/Legal Entity
Name

who hereby personally and as the authorized representative of the above identified legal person executes this affidavit, as the undersigned Company verification of its current and future compliance with L.S.A. R.S. 38:2212.10, stating affirmatively that it and each individual, firm or corporation associated with it and engaged in the physical performance of services in the State of Louisiana, under a contract with St. John the Baptist Parish has registered with, is participating in, and shall continue to participate in a federal work authorization program designated as such under the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as amended, which is operated by the United States Department of Homeland Security, known as the "E-Verify" program. The Company hereby verifies the legal status of all existing and new employees in the State of Louisiana by attesting herein that each is a citizen of the United States or legal aliens as defined by now effective immigration laws of the United States of America.

Company shall not assign this Contract or any monies due or to become due hereunder, or subcontract any part of the Work without the prior written consent of St. John the Baptist Parish.

Company verifies that the Company will collect an affidavit in this form from any approved subcontractor and forward a copy to: St. John the Baptist Parish, 1801 West Airline Hwy, LaPlace, Louisiana 70068, no later than five business days of contracting with its subcontractor; however, in no instance shall the affidavit be received after commencement of work by the subcontractor.

Signature of Authorized Signatory

Date E-Verify ID Assigned

Printed Name of Signatory

E-Verify ID

Title of Authorized Signatory

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE DAY OF _____, 20____

Notary Signature

Printed Notary Name: _____

Notary/Bar Roll Number: _____

My Commission is For/Expires: _____

Section 03.5

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

Name and Title of Contractor's Authorized Official

Date

Section 04

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, by and between **St. John the Baptist Parish, LA** herein called "Owner," acting herein through its Parish President, Jaclyn Hotard, and _____, herein after called "Contractor."

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the construction described as follows:

River Road Wastewater Treatment Plant Mobile Belt Filter Press Project

Hereinafter called the project, for the sum of _____ Dollars (\$ _____) and all extra work in connection therewith, under the terms as stated in the specifications and at his/her (its/their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the specifications and contract documents.

The Owner will issue an Administrative Notice to Proceed authorizing the Contractor to initiate the submittal review process and place any necessary material and equipment orders. The Contractor shall provide the Owner with a schedule of all material and equipment orders and provide periodic updates should any changes occur. Upon confirmation of delivery of all required equipment to the job site a full Notice to Proceed for construction will be issued authorizing the Contractor to commence with all work and services as required by the Contract Documents. The Contractor shall complete all work under the Contract within thirty (30) calendar days from the date of the official "Notice to Proceed." Bidder must agree to pay as liquidated damages the sum of **\$250.00** for each consecutive calendar day thereafter until acceptance as hereinafter provided.

The Contractor hereby agrees to perform work under this contract in accordance with the Federal requirements listed within the specifications.

The OWNER will pay to the CONTRACTOR, in the amount and at such times as set forth in the GENERAL CONDITIONS, such amounts as required by the CONTRACT DOCUMENTS.

St. John the Baptist Parish shall retain the following percentages of each progress payment until payment is due under the terms and conditions governing retainage payment:

<u>CONTRACT AMOUNT</u>	<u>RETAINAGE</u>
\$0 - \$499,999.99	10%
\$500,000.00 – Over	5%

Contractor's performance of its obligations hereunder shall be excused in the event and during the period that such performance is prevented or rendered unsafe by the following: acts of God; acts of war, riot, accident, flood or sabotage; pandemic, unavailability of fuel or power or materials; judicial or governmental laws, regulations, requirements, orders or actions; injunctions or restraining orders which are ultimately determined to have been wrongfully granted; the failure of any governmental body to issue or grant, or the suspension or revocation of, licenses, permits or other approvals or authorizations necessary for the performance of the services contemplated by this agreement; or national defense requirements.

This AGREEMENT shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

Signatures Follow on the Next Page.

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized officials, this AGREEMENT in three (3) copies each of which shall be deemed an original on the date first above written.

OWNER:

St. John the Baptist Parish

ATTEST:

BY

Signature

BY

Signature

Jaclyn Hotard, Parish President

(Printed Name and Title)

(Printed Name and Title)

CONTRACTOR:

ATTEST:

BY

Signature

BY

Signature

(Printed Name and Title)

(Printed Name and Title)

NOTE: Secretary of the Owner should attest. If Contractor is a corporation, Secretary should attest.

**Section 4.1
PAYMENT BOND**

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____
(Corporation, Partnership, or Individual)

hereinafter called PRINCIPAL and _____
(Name of Surety)

(Address of Surety)

hereinafter called SURETY, are held and firmly bound unto:

St. John the Baptist Parish

(Name of Owner)

1811 W. Airline Hwy, LaPlace, LA 70068

(Address of Owner)

hereinafter called OWNER and unto all persons, firms, and corporations who or which may furnish labor, or who furnish materials to perform as described under the CONTRACT and to their successors and assigns in the total aggregate penal sum of _____ (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that WHEREAS, the PRINCIPAL entered into a certain CONTRACT with the OWNER, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

River Road Wastewater Treatment Plant Mobile Belt Filter Press Project

NOW, THEREFORE, if the PRINCIPAL shall promptly make payment to all persons, firms, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such CONTRACT and any authorized extensions or modification thereof, including all amounts due for materials, equipment and tools, consumed or used in connection with the construction of such WORK, and for all labor cost incurred in such WORK including that by a SUBCONTRACTOR, and to any mechanic or materialman lienholder whether it acquires its lien by operation of State or Federal law; then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, that in all respects this Bond shall be a statutory bond pursuant to LSA-R.S. 38:2241.

PROVIDED, FURTHER, that the said SURETY for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the CONTRACT or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of this CONTRACT or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that it is expressly agreed that this BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the CONTRACT increasing the CONTRACT PRICE, so as to bind the PRINCIPAL and SURETY to the full and faithful performance of the CONTRACT as so amended. The term "Amendment", wherever used in this BOND and whether referring to this BOND, the CONTRACT or the loan documents shall include any alteration, addition, extension or modification of any character whatsoever. PROVIDED FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each of which shall be deemed an original, this being the _____ day of _____, 20_____.

ATTEST:

(Principal)

(Principal) Secretary

By _____

(Address)

Witness as to Principal

(Address)

Surety

ATTEST:

Witness as to Surety

By _____
Attorney-in-Fact

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of CONTRACT.

If CONTRACTOR is partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

Section 04.2
PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____
(Corporation, Partnership, or Individual)

hereinafter called PRINCIPAL and _____
(Name of Surety)

(Address of Surety)

hereinafter called SURETY, are held and firmly bound unto:

St. John the Baptist Parish
(Name of Owner)

1811 W. Airline Hwy, LaPlace, LA 70068
(Address of Owner)

hereinafter called OWNER, in the total aggregate sum of _____ (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain CONTRACT with the OWNER, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

River Road Wastewater Treatment Plant Mobile Belt Filter Press Project

NOW, THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said CONTRACT during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the SURETY and during the warranty periods, express and/or implied, and if the PRINCIPAL shall satisfy all claims and demands incurred under such CONTRACT, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said SURETY, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the CONTRACT or to WORK to be performed thereunder or the SPECIFICATIONS accompanying same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the CONTRACT or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that it is expressly agreed that the BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the CONTRACT increasing the CONTRACT PRICE, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the CONTRACT as so amended. The term "Amendment", wherever used in this BOND, and whether referring to this BOND, the CONTRACT or any of the Contract Documents shall include any alteration, addition, extension, or modification of any character whatsoever.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each of which shall be deemed an original, this being the _____ day of _____, 20_____.

ATTEST:

(Principal)

(Principal) Secretary

By _____

(Address)

Witness as to Principal

(Address)

Surety

ATTEST:

Witness as to Surety

By _____
Attorney-in-Fact

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of CONTRACT.

If CONTRACTOR is partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

Section 05 GENERAL CONDITIONS

ARTICLE 1 - Definitions

Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

Acceptance, Final Acceptance - The formal action by ENGINEER accepting the Work, or a specified part of the work thereof, as being complete in all respects, or the action by ENGINEER to place the equipment/facilities in operation for continuous utilization for their intended purposes.

Agreement - Refers to the written document signed by the OWNER and CONTRACTOR that is the legal instrument binding the parties to the work. The terms "Agreement" and "Contract" are synonymous.

Application for Payment - The form furnished by CONTRACTOR and approved by ENGINEER for requesting progress payments and an affidavit of CONTRACTOR and its Subcontractors that progress payments theretofore received from OWNER on account of the work have been applied by CONTRACTOR and its Subcontractors to discharge in full all of CONTRACTOR'S and its Subcontractors' obligations stated in the prior Application for Payment, and that the accuracy of the progress reported in the Application for Payment to have been completed by CONTRACTOR or its Subcontractors has been verified by CONTRACTOR. The application for Payment should include all supporting documentation as required by the Contract Documents.

Bid - Refer to definition of Proposal Document in Instructions to Bidders.

Bonds - Bid, performance and payment bonds and other instruments of security.

Change Order - A written order to CONTRACTOR in accordance with the Louisiana Bid Law and approved by OWNER authorizing an alteration, deviation, addition, deletion, and/or revision in the Work, or an adjustment in the Contract Price and/or the Contract Time.

Contract Documents - Those documents itemized herein and as may be further itemized in the Supplementary Conditions. The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR'S Bid (including documentation accompanying the Bid and any post-bid documentation submitted), the bonds, the General Conditions, Special Contract Provisions, the Technical Provisions, the Drawings as the same are more specifically identified in this Agreement, together with all Modifications issued after the execution of this Agreement shall be part of the Contract Documents.

Contract Price - The moneys payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9.1 in the case of Unit Price Work).

Contract Time - The number of days (computed as provided in paragraph 17.2) or the date stated in the Agreement for the completion of the Work.

CONTRACTOR - A person, firm or corporation with whom OWNER has entered into the Agreement for the Work designated under the Contract Documents. The term "CONTRACTOR" shall also mean CONTRACTOR or its authorized representative.

Correction Period - The time during which CONTRACTOR must repair defective work or remove defective work from the site and replace it with non-defective work, all at no cost to the OWNER, pursuant to Paragraph 13.12 of the General Conditions.

Day - A calendar day of twenty-four hours measured from midnight to the next midnight.

Defective - An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test, referenced standard or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER'S recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.8 or 14.10).

Drawings - The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents. The terms "Drawing" and "Plan" are synonymous, and wherever used in the Contract Documents it should be interpreted according to the definition of "Drawings".

Effective date of the Agreement - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

ENGINEER - The individual, firm or corporation named as ENGINEER in the Supplementary Conditions, who will have the rights and authority assigned to the ENGINEER in the Contract Documents. The term "ENGINEER" means the ENGINEER or its authorized representative. The terms "ENGINEER", "DESIGN ENGINEER", "ARCHITECT" and "ENGINEER/ARCHITECT" are synonymous, and wherever used in the Contract Documents they should be interpreted according to the definition of "ENGINEER".

Field Order - A written order issued by ENGINEER to CONTRACTOR on or after the effective date of the agreement requiring a minor change in work not requiring an adjustment in the Contract Price or Contract Time.

General Requirements – refers to these General Conditions. The terms "General Requirements" and "General Conditions" are synonymous.

Laws and Regulations; Laws or Regulations - Laws, rules, regulations, ordinances, codes and/or orders.

Notice of a Proposed Change - A written document issued on or after the effective date of the agreement initiated by a) OWNER requesting that CONTRACTOR figure the potential effect on Contract Price or time of the proposed change described in the Notice, if the proposed change is to be ordered, or b) CONTRACTOR to notify OWNER that in the CONTRACTOR'S opinion a change has been requested in a Field Order, or pursuant to ENGINEER'S approval of a shop drawings, or a written interpretation or clarification (pursuant to paragraph 9.4). A Notice of a Proposed Change shall not constitute an order to change the work, as no change shall be considered ordered until an appropriate change order, or Work Directive Change is executed by OWNER.

Notice of Award - The written notice by OWNER to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

Notice to Proceed - A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR'S obligation under the Contract Documents.

OWNER – St. John the Baptist Parish Government (SJBPG) which includes all Parish Departments, its elected and appointed officials, Agencies, Councils, Boards and Commissions, Districts, their officers, agents, servants and employees, including volunteers.

Operation, Initiation of - A point in time when OWNER initiates use of the entire work under the project for the purposes that it was planned, designed and built, setting forth commencement of the correction period.

Partial Utilization - Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.

Project - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted to CONTRACTOR to illustrate material or equipment for some portion of the Work.

Specifications - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Subcontractor - An individual, partnership, corporation, joint venture, or other combination thereof who has a contract with Contractor to perform any part of the work at the site. The term "Subcontractor" shall also mean any individual, partnership, corporation, joint venture, or other combination thereof who has a contract with another Subcontractor to perform any part of the work at the site.

Substantial Completion - The finishing of the Work, or a specified part of the Work, in accordance with the Contract Documents, to the extent that Owner can use or occupy all or the specified part of the Work for the use for which it is intended without any concurrent Work at the site except as required to complete Punch List items with cumulative value under one percent (1%) of the Contract Price. Prerequisites for Substantial Completion include: (a) all systems have been successfully tested and demonstrated by the CONTRACTOR for their intended use, and (b) the Owner receiving all occupancy certifications and approvals from those State and local Public Entities with jurisdiction.

Special or Supplementary Conditions - Section following General Conditions which amends or supplements the General Conditions and is a part of the Contract Documents and is located in the Book of Contract Documents.

Supplier - A manufacturer, fabricator, supplier, distributor, material man or vendor.

Testing, Pre-operational - All field inspections, installation checks, water tests, performance tests, and necessary corrections required of CONTRACTOR to demonstrate that individual components of the work have been properly erected and found to operate in accordance with the Contract Documents, so that they can be utilized continuously for their intended purposes.

Testing, Start-up - A pre-defined trial period required for achieving Substantial Completion during which CONTRACTOR is to operate the work, or a part specified thereof, under actual and simulated operating conditions and performing as defined in the Contract Documents, for the purposes of a) making such minor adjustments and changes as may be found necessary to comply with the requirements of the Contract Documents, and b) to comply with the final test requirements outlined in the Contract Documents.

Underground Facilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials; electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Work - Any and all obligations, duties, responsibilities, labor, materials, equipment, temporary facilities, and incidentals, and the furnishing thereof necessary to complete the construction assigned to, or undertaken by CONTRACTOR, pursuant to the Contract Documents. Also, the completed construction or parts thereof required to be provided under the Contract Documents, including all materials, equipment, and supplies incorporated or to be incorporated in the construction.

Work Directive Change - A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed

as provided in paragraph 4.2 or 4.3 or to emergencies under paragraph 6.20. A Work Directive Change may not change the Contract Price or the Contract Time, but is evidence that the parties expect that the change directed or documented by a Work Directive Change will be incorporated in a subsequently issued Change Order following successful negotiations by the parties as to its effect, if any, on the Contract Price or Contract Time as provided in paragraph 10.2.

ARTICLE 2 - Preliminary Matters

2.1 DELIVERY OF BONDS: When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

2.2 COPIES OF DOCUMENTS: OWNER shall furnish to CONTRACTOR up to five copies (unless otherwise provided in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

2.3 COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED: A Notice to Proceed may be given at any time within thirty days after the effective date of the agreement. However, upon mutual written consent by both parties, the notice to proceed may be extended. The Contract Time will commence at the time specified in such notice to proceed or, if no notice is given, thirty days following the Effective Date of the Agreement.

2.4 STARTING THE PROJECT: CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run, except with the written consent of OWNER.

2.5 BEFORE STARTING CONSTRUCTION: Before undertaking each part of the Work, CONTRACTOR shall (a) study and compare the Contract Documents with each other and against manufacturers, representations, (b) verify dimensions and field measurements, (c) coordinate requirements of dependent Work (location, dimensions, access, fit, completeness, class, codes, etc.), and (d) notify ENGINEER in writing of any conflict, error, omission or deviation from manufacturers' recommendations discovered. CONTRACTOR shall be responsible for any delay and all costs resulting from performing any Work before obtaining a written clarification or interpretation from ENGINEER, if CONTRACTOR had actual knowledge, or should have reasonably known that any such Work (a) involves a conflict, error or omission, or (b) is subject to specific method of installation, performance or test procedure or result which is contrary to the recommendation of the corresponding manufacturer. **Contractor shall also be responsible for locating all property lines and right-of-way lines prior to beginning construction.**

2.6 SCHEDULE SUBMITTALS: Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit four copies of the following schedules to ENGINEER for review:

2.6.1 An estimated progress schedule indicating the starting and completion dates of the various stages of the Work in accordance with the Contract Documents.

2.6.2 A preliminary schedule of Shop Drawing submissions.

2.6.3 A preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by CONTRACTOR at the time of submission. The

Schedule of Values will be organized along the Divisions, and sub-divisions, of the Technical Specifications.

2.7 INSURANCE CERTIFICATES: Before any Work at the site is started, CONTRACTOR shall deliver to OWNER, with a copy of ENGINEER, certificates (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with paragraphs 5.4, 5.5, and 5.6. Certificates of Insurance must be accompanied by a letter from the Contractor's Insurance Agent certifying that the insurance being provided meets the limits and requirements of the specifications. An explanation of any abbreviations used on the certificates must also be provided.

2.8 PRE-CONSTRUCTION CONFERENCE: Within twenty days after the effective date of the Agreement, but before CONTRACTOR starts the Work at the site, a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to discuss the schedules referred to in paragraph 2.6, to discuss procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work.

2.9 FINALIZING SCHEDULES: At least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to finalize the schedules submitted in accordance with paragraph 2.6. The finalized progress schedule will be acceptable to ENGINEER as providing an orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on ENGINEER responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility therefore. The finalized schedule of Shop Drawing submissions will be acceptable to ENGINEER as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to ENGINEER as to form and substance.

ARTICLE 3 - Contract Documents; Intent, Amending, Re-use

3.1 INTENT: The Contract Documents comprise the entire Agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

3.2 FUNCTIONALLY COMPLETE PROJECT: It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with such meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or be implication, shall mean the latest standard specifications, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the effective date of the Agreement if there were no Bids), even though reference may be specifically made to an earlier standard. However, no provision of any referenced standard specifications, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to ENGINEER, or any of ENGINEER'S consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of subparagraph 9.13.3 or 9.13.4. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided for in paragraph 9.4. In the event of any conflict between any of these standard specifications, manuals, or codes and any Divisions of the Book of Technical Specifications, the latter requirements shall be binding on Contractor. In the event that two or more standard specifications, manuals, or codes conflict with one another, the requirement ultimately enforced shall be binding on CONTRACTOR. In this event it will be

considered that the higher cost requirement has been considered in the CONTRACTOR'S Bid Proposal and the CONTRACTOR further agrees and acknowledges that compliance with this condition shall not warrant an increase in Contract Price nor Contract Time.

3.3 CONFLICT IN CONTRACT DOCUMENTS: If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to ENGINEER in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from ENGINEER; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof. Until interpretation, clarification or instruction is obtained from ENGINEER, any work done by CONTRACTOR (or Subcontractors) after the discovery of such a conflict, error, or discrepancy, which is directly or indirectly affected by same, will be at his own risk and he shall bear all cost arising therefrom.

3.4 AMENDING AND SUPPLEMENTING CONTRACT DOCUMENTS: The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

3.4.1 A Change Order (pursuant to paragraph 10.4), or

As indicated in paragraphs 11.2 and 12.1, Contract Price and Contract Time may only be changed by a Change Order.

3.5 WORK DIRECTIVE CHANGE: In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by a Work Directive Change required by one or more of the following actions:

3.5.1 A Field Order (pursuant to paragraph 9.5 and 10.7)

3.5.2 ENGINEER'S approval of a Shop Drawing or sample (pursuant to paragraphs 6.24), or

3.5.3 ENGINEER'S written interpretation or clarifications (pursuant to paragraph 9.4)

3.6 RE-USE OF DOCUMENTS: Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER; and they shall not re-use any of them on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

3.7 INTERPRETATION OF DRAWINGS AND SPECIFICATIONS:

3.7.1 All figures and dimensions on the drawings and specifications shall be carefully checked by CONTRACTOR, who shall note all conflicts, errors, or discrepancies. CONTRACTOR will be held responsible for any conflict, error, or discrepancy not discovered before the work is executed, unless contractor could not have reasonably known about the conflict, error, or discrepancy. CONTRACTOR shall promptly notify ENGINEER in writing of any discrepancies, errors, or omissions discovered in review of the Contract Documents. ENGINEER will promptly investigate the matter and respond to CONTRACTOR.

3.7.2 In all cases, figured dimensions shall govern over scaled dimensions, but work not dimensioned shall be as directed, and work not particularly shown, identified, sized, or located shall be the same as similar parts that are shown or specified. Further, detail drawings shall govern over general drawings, larger scale details take precedence over smaller scale drawings, change order drawings govern over contract drawings, and contract drawings over shop drawings. Specifications shall govern as to products, execution and workmanship, and drawings shall govern as to locations, dimensions, or quantities to be furnished. Further, in all cases where specifications, notes or details in two drawings conflict, the more restrictive requirement as to quantities, product, execution, workmanship, or performance shall be binding on CONTRACTOR, unless otherwise directed by OWNER.

3.7.3 After the Agreement date, CONTRACTOR shall be furnished with a maximum number of five (5) sets of Plans, Specifications and Addenda in addition to those CONTRACTORS purchased during the bid period. Additional Specifications or Drawings requested by CONTRACTOR will be provided in complete sets and at the expense of CONTRACTOR.

ARTICLE 4 - Availability of Lands; Physical Conditions Reference Points (NOT USED)

ARTICLE 5 - Bonds and Insurance

5.0 ST. JOHN THE BAPTIST PARISH GOVERNMENT, DEFINED.

For the purposes of this Article, the terms "St. John the Baptist Parish Government," "SJBPA," and "OWNER" shall include, but may not be limited to, all of the following entities and persons: the St. John the Baptist Parish Government (a political subdivision of the State of Louisiana); the St. John the Baptist Parish Council (the governing body of St. John the Baptist Parish); their elected and appointed officials, all parish departments, districts, agencies, councils, boards, and commissions, officers, agents, servants, employees and volunteers; and the elected and appointed officials, departments, officers, agents, servants, employees and volunteers of those departments, districts, agencies, councils, boards, and commissions.

5.1 PERFORMANCE AND OTHER BONDS

5.1.1 Unless otherwise provided for in the Louisiana Public Bid Law, CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR'S obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date of final payment, except as otherwise provided by Law or Regulation or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds when required by the Supplementary Conditions. All Bonds shall be in the forms prescribed by Law or Regulation or by the Contract Documents and be executed by such Sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority.

Any bond prescribed by the contract documents shall be written by a surety or insurance company currently on the U.S. Department of the Treasury Financial Management Service list of approved bonding companies which is published annually in the federal Register, or by a Louisiana domiciled insurance company currently possessing a rating of no less than A- in the latest printing of the A.M. Best's Key Rating Guide, to write individual bonds up to the percent of policyholders' surplus as shown in the A.M. Best's Key Rating Guide.

In addition, any surety bond written for a public works project shall be written by a surety or insurance company that is currently licensed and approved to do business in the state of Louisiana.

For any public works project, no surety or insurance company shall write a bond which is in excess of the amount indicated as approved by the U.S. Department of the Treasury Financial Management Service list or by a Louisiana domiciled insurance company with an A- rating by A.M. Best up to a limit of ten percent of policyholders' surplus as shown by A.M. Best; companies authorized by this Paragraph who are not on the treasury list shall not write a bond when the penalty exceeds fifteen percent of its capital and surplus, such capital and surplus in the amount by which the company's assets exceed its liabilities as reflected by the most recent financial statements filed by the company with the Department of Insurance.

5.1.2 If the Surety on any Bond or any insurance company providing any insurance overages furnished by CONTRACTOR is declared bankrupt, becomes insolvent, or its right to do business is terminated in any state

where any part of the Project is located, or it ceases to meet the requirements of this Article, CONTRACTOR shall within five (5) days thereafter, substitute another Bond and Surety and/or insurance company, both of which shall be acceptable to OWNER. The OWNER reserves the right to mandate the cessation of all work on the Project until the receipt of evidence of acceptable replacement Bonds and/or insurance.

- 5.1.3 If, at any time during the Contract Period, the CONTRACTOR fails to provide satisfactory evidence of all Bond and insurance requirements or fails to take all corrective action required by the OWNER, the OWNER reserves the right to mandate the cessation of all work on the Project until receipt of acceptable evidence of Bonds and insurance and/or corrective action undertaken.

5.2 INDEMNIFICATION AGREEMENT

To the fullest extent permitted by law, the CONTRACTOR shall protect, defend, indemnify, save and hold harmless the OWNER from and against any and all claims, demands, expense, losses, suits, costs, actions, fines, penalties, and liability, whether actual or alleged, arising out of or resulting from injury, sickness, disease or death to any person or the damage, loss, expense or destruction of any property, including loss of use resulting therefrom, which may occur, be caused by, or in any way result from any actual or alleged act, omission, negligence, misconduct, or strict liability of CONTRACTOR, its agents, its sub-contractors, partners, servants, officers, employees, volunteers, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, related to the performance or non-performance of the contract herein entered into, including any and all costs, fines, penalties, expense and/or attorney fees, including but not limited to expert witness fees, incurred by the OWNER as a result of any such claims, demands, losses and/or causes of action including any costs associated with the enforcement of this indemnity provision except those arising out of the sole negligence of OWNER. This indemnification does not apply to any strict liability of the St. John the Baptist Parish Government. The CONTRACTOR shall investigate, adjust, settle, contest to resolution, resist claims, handle, respond to, provide defense for and defend any such claims, demands, proceedings, judgments, or suits at its sole expense related thereto, even if such claim, proceeding, judgment, demand or suit is groundless, false or fraudulent.

5.3 POLICIES AND CERTIFICATES

All policies and certificates of insurance of the Contractor/Subcontractor shall contain the following clauses:

- 5.3.1 The Contractor/ Subcontractor's insurer will have no right of recovery or subrogation against the OWNER it being the intention of the parties that the insurance policies so affected shall protect both parties and shall be primary coverage for any and all losses covered by the below described insurance. Contractor's insurers shall waive all rights against the Owner
- 5.3.2 The OWNER shall be named as an additional insured as respects to liability arising out of activities performed by or on behalf of the Contractor: products and completed operations of the Contractor, premises owned, occupied or used by Contractor. The Commercial General Liability Policy shall include ISO Forms CG 20 10 or its equivalent.
- 5.3.3 The insurance companies issuing the policy or policies shall have no recourse against the OWNER for payment of any premiums or for assessments under any form of policy.
- 5.3.4 Any and all deductibles and/or self insured retentions in the below described insurance policies shall be assumed and be for the account of, and shall be borne solely by the Contractor/Subcontractor and at his sole expense without any right of reimbursement from the OWNER, and shall not exceed \$10,000 per policy.

5.4 INSURANCE

The Contractor/Subcontractor, prior to commencing work, shall provide at his own expense, proof to the OWNER of the following insurance coverages required by the contract. Insurance is to be placed with insurance companies

authorized to do business and approved in the State of Louisiana with an A.M. Best's rating of no less than A-:VI. This requirement will be waived for workers' compensation coverage only for those contractors whose workers' compensation coverage is placed with companies who participate in the State of Louisiana Workers' Compensation Assigned Risk Pool or the Louisiana Workers' Compensation Corporation. Policies are to be on an Occurrence basis, Claims Made policies are not acceptable. Contractor shall provide an "All-Risk" Builder's Risk Insurance Policy covering all perils typically found and which shall include coverage for wind damage and flood.

5.4.1 All notices will name the Contractor/Subcontractor and identify the contract number. Insurance coverage specified in the GENERAL CONDITIONS is to be provided by the Contractor with the following minimum limits:

5.4.1.1 Workers' Compensation-Statutory in compliance with the Compensation Law of the State of Louisiana. Employer's liability to be \$1,000,000. Alternate Employer Endorsement in favor of OWNER; Waiver of Subrogation in favor of OWNER; and Thirty (30) days prior written notice of cancellation, non-renewal, and adverse material change to OWNER. The OWNER and the Contractor mutually agree that it is their intention to recognize the OWNER as the statutory employer of the contractor's employees (whether direct employees or statutory employees of the contractor) when any of the contractor's employees are doing work and/or providing service under this agreement.

5.4.1.2 Commercial General Liability Insurance: See Invitation for Bid Section 10.0 Insurance. This insurance shall include products/completed operations, contractual liability, personal injury, and without written prior approval of the OWNER, the Commercial General Liability coverages shall not exclude any standardized coverage included in the basic form or limit any coverages for this project in any way that would prohibit or limit the reporting of any claim, suit and the subsequent defense and indemnity that would normally be provided by the policy. The Certificate of Insurance shall indicate which of the seven (7) coverage requirements below are not included in the policy, if any:

1. Premises - Operations;
2. Broad Form Contractual Liability;
3. Products and Completed Operations;
4. Use of Contractors and Subcontractors;
5. Personal Injury;
6. Broad Form Property Damage;
7. Explosion, Collapse, and Underground (XCU) Coverage

Note: On the certification of insurance, under the description of operations, the following wording is required: THE AGGREGATE LOSS LIMIT APPLIES TO EACH PROJECT, or a copy of ISO form CG2503 (Ed. 11-85) shall be submitted.

Waiver of Subrogation to cover both oral and written contracts in favor of the OWNER and Thirty (30) days notice of cancellation, non-renewal or material change. If unable to provide and grant 30 days notice of cancellation, this should be brought to the attention of the Risk Management Department for approval.

5.4.1.3 Business Automobile Liability Insurance with a combined single limit of \$500,000 per occurrence for bodily injury and property damage. This insurance shall include for bodily injury and property damage the following coverages:

1. Any automobiles;
2. Owned automobiles;
3. Hired automobiles;
4. Non-owned automobiles.

5.4.1.4 An Umbrella Policy may be used to meet minimum requirements.

5.4.1.5 All property losses shall be made payable to and adjusted with OWNER.

5.4.1.6 All policies of insurance shall be approved by contracting OWNER prior to the inception of any work.

5.4.1.7 (OMITTED)

5.4.1.8 If, at any time any of the said policies shall be or become unsatisfactory to OWNER, as to form or substance, or if a company issuing any such policy shall be or become unsatisfactory to OWNER, the Contractor/Subcontractor shall promptly obtain a new policy, submit the same to OWNER for approval and submit a certificate thereof as herein above provided. Upon failure of the Contractor/Subcontractor to furnish, deliver and maintain such insurance as above provided, this contract, at the election of OWNER, may be forthwith declared suspended, discontinued or terminated. Failure of the Contractor/Subcontractor to take out and/or to maintain any required insurance shall not relieve the Contractor/Subcontractor from any liability under the contract, nor shall the insurance requirements be construed to conflict with obligations of the Contractor/Subcontractor concerning indemnification.

5.4.2 Thirty (30) days prior notice of cancellation shall be given to OWNER by registered mail, return receipt requested, on all of the required coverage provided to OWNER in the event of cancellation, non-renewal and/or any changes by insurers with regard to limits, terms or conditions (material changes). All notices will name the Contractor/Subcontractor and identify the contract number.

5.5 INFORMATION TO BIDDERS

RISKS AND INDEMNIFICATIONS ASSUMED BY THE CONTRACTOR. Neither the acceptance the completed work nor payment therefore shall release the Contractor/Subcontractor from his obligations from the insurance requirements or indemnification agreement.

5.5.1 Additional insurance may be required on an individual basis for extra hazardous contracts and specific service agreements. If such additional insurance is required for a specific contract, that requirement will be described in the "Special Conditions" section of the contract specifications.

5.5.1.1 The contractor will acquire builders risk coverage for the full value of the project, or in the case of a renovation, for the full value of the renovation which provides all risk coverage for direct physical loss or damage to buildings/contents or structures during the course of construction. This coverage shall not have a deductible higher than a \$5,000 per occurrence. The deductible is the responsibility of the contractor, and should be taken into consideration when determining contract price.

5.5.2 If any of the insurance requirements are not complied with at their renewal dates, payments to the Contractor/Subcontractor will be withheld until those requirements have been met, or at the option of OWNER, OWNER may pay the Renewal Premium and withhold such payments from any monies due the Contractor/Subcontractor. However, under no circumstances shall OWNER be responsible for the payment or provision of fees to any Broker, Wholesaler, Agent or Producer involved in the placement or renewal of the policy(ies) in question.

5.5.2.1 The contractor shall purchase and maintain boiler and machinery insurance or additional property insurance as may be required by Laws and Regulations which will include the interest of OWNER, Contractor, Subcontractor, Architect and Architect's Consultants (or ENGINEER and Engineer's Consultants) in the work all of whom shall be listed as insured or additional insured parties.

- 5.5.3 All policies and certificates of insurance SHALL BE APPROVED BY OWNER PRIOR TO THE INITIATION OF ANY WORK. If OWNER has any objection to the coverage afforded by or any other provisions of the insurance required to be purchased and maintained by the Contractor in accordance with the insurance requirements for the work on the basis of non-conformance with the Contract Documents, OWNER shall notify the Contractor in writing within fifteen (15) days after receipt of the certificates. The Contractor shall provide a written response to OWNER with objections within ten (10) days from the date of the letter request.
- 5.5.4 Other coverage may be required by OWNER based on specific needs. If such other coverage is required for this contract, that coverage will be described in the "Special Conditions" of the contract specifications.
- 5.5.6 Contractors Pollution coverage with minimum limits of \$1,000,000.00 naming OWNER as an Additional Insured due to the nature of work being performed.
- 5.5.7 SUBCONTRACTORS - Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein for the Contractor.
- 5.5.8 CERTIFICATE OF INSURANCE AND INDEMNIFICATION AGREEMENT - Contractor shall furnish OWNER with certificates of insurance effecting coverage required. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. THESE CERTIFICATES ARE TO BE RECEIVED AND APPROVED BY OWNER BEFORE WORK COMMENCES, AND THEREAFTER UPON RENEWAL OR REPLACEMENT OF EACH REQUIRED COVERAGE. OWNER reserves the right to require complete, certified copies of all required insurance policies at any time and upon request.
- 5.5.9 INSURANCE REQUIREMENTS FOR CONTRACTORS - Contractors shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the bid.

5.6 MINIMUM SCOPE OF INSURANCE

Coverage shall be at least as broad as:

5.6.1 COVERAGE:

- 5.6.1.1 Insurance Services Office Commercial General Liability coverage ("occurrence form CG 00 01"). "Claims Made" form is unacceptable. The "occurrence form" shall not have "sunset clause".
- 5.6.1.2 Insurance Services Office form number CA0001 covering Automobile Liability. The policy shall provide coverage for any auto or owned, hired, and non-owned coverage. If an automobile is to be utilized in the execution of this contract, and the vendor/contractor does not own a vehicle, then proof of hired and non-owned coverage is sufficient.
- 5.6.1.3 Workers' Compensation insurance as required by the Labor Code of the State of Louisiana, including Employers Liability insurance.

5.6.2 MINIMUM LIMITS OF INSURANCE: Contractor shall maintain limits no less than:

- 5.6.2.1 Commercial General Liability: See Invitation for Bid Section 10.0 Insurance for coverage terms and limits.
- 5.6.2.2 Automobile Liability: \$500,000 combined single limit per accident, for bodily injury and property damage.

5.6.2.3 Workers' Compensation and Employers Liability: Workers' Compensation limits as required by the Labor Code of the State of Louisiana (Statutory Benefits). Employers Liability limit is to be \$1,000,000.

5.6.3 DEDUCTIBLES AND SELF-INSURED RETENTIONS - Any deductibles or self-insured retentions must be declared to and approved by OWNER. At the option of the OWNER either: The insurer shall reduce or eliminate such deductibles or self-insured retentions as respects OWNER; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

5.6.4 OTHER INSURANCE PROVISIONS: The policies are to contain, or be endorsed to contain, the following provisions:

5.6.4.1 General Liability and Automobile Liability Coverages

a) OWNER is to be added as "additional insured" as respects liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor, premises owned, occupied or used by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to OWNER. It is understood that the business auto policy under "Who is an insured" automatically provides liability coverage in favor of OWNER.

b) Any failure to comply with reporting provisions of the policy shall not affect coverage provided to OWNER.

c) The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

5.6.4.2 Workers' compensation and Employer's Liability Coverage - The insurer shall agree to waive all rights of subrogation against OWNER for losses arising from work performed by the Contractor for OWNER.

5.6.4.3 All Coverages - Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, non-renewed, voided, canceled thirty (30) days prior written notice by certified mail, return receipt requested to OWNER.

5.6.5 ACCEPTABILITY OF INSURERS - Insurance is to be placed with insurers with A.M. BEST'S RATING OF NO LESS THAN A-:VI. This requirement will be waived for workers' compensation coverage only for those contractors whose workers' compensation coverage is placed with companies who participate in the State of Louisiana Workers' Compensation Corporation Assigned Risk Pool or Louisiana Workers' Compensation Corporation.

5.7 PARTIAL UTILIZATION - PROPERTY INSURANCE

If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.10; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or allowed to lapse on account of any such partial use of occupancy.

5.8 PRIMARY COVERAGE

OWNER and CONTRACTOR intend that any policies provided in response to paragraphs 5.4.1.2, 5.5.1.1, and 5.5.2.1 shall protect all of the parties insured and provide primary coverage for all losses and damages caused by the perils covered thereby. Accordingly, all such policies shall contain provisions to the effect that in the event of payment of

any loss or damage the insurer shall have no rights of recovery against any of the parties named as insured or additional insured, and if the insurers require separate waiver forms to be signed by ENGINEER, engineer's consultant or subcontractor, CONTRACTOR will obtain the same.

ARTICLE 6 - Contractor's Responsibilities

6.1 SUPERVISION: CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

6.2 CONTRACTOR'S SUPERINTENDENT:

6.2.1 CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR'S representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR. If OWNER, at any time objects to the superintendent, CONTRACTOR shall provide a replacement superintendent at no increase in Contract Price or Contract Time.

6.2.2 The Superintendent shall, as a minimum, be required to be present at a monthly meeting of the Owner in order to address any applicable questions which may arise during construction of the project and to submit request for consideration and approval of any and all applications for payment. It shall be the Contractor's responsibility to ascertain and verify the time, date and location of said meeting. In the event the Superintendent fails to attend the said meeting, Owner may at his option refrain from approving any outstanding applications for payment until the requirements of this provision are fully complied with.

6.3 WORK HOURS: CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site.

6.3.1 Except in connection with the safety or protection of persons or the work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work under the project site shall be performed during normal working hours, and CONTRACTOR will not permit overtime Work or the performance of Work on Saturday, Sunday, legal holidays observed by the OWNER, each year, without OWNER'S written consent given after prior written notice to ENGINEER.

6.3.2 Normal working hours shall be defined as CONTRACTOR'S normal eight-hour working period occurring between the hours set forth at the pre-construction conference, or if none are set forth, beginning at 7:00 a.m. and ending at 5:00 p.m., exclusive of Saturdays, Sundays, or legal holidays. Work during other than normal working hours may be scheduled as a regular procedure by CONTRACTOR if he first obtains written permission from OWNER. OWNER shall be entitled to recover costs for overtime inspection related to work done during other than normal working hours.

6.3.3 If CONTRACTOR, after reviewing the Contract Documents, and for his convenience and at no increase in Contract Price, feels that scheduled work during other than normal work hours will be required to complete the work within the Contract Time, CONTRACTOR shall submit a proposed schedule for said work with the construction schedule as described in Paragraph 2.6 of the General Conditions. This schedule will be reviewed for acceptance by OWNER and discussed at the pre-construction conference as described in Paragraph 2.8 of the General Conditions. If the schedule is accepted by OWNER, OWNER will not seek to recover costs for overtime inspection. OWNER'S approval of CONTRACTOR'S schedule will not be considered a basis for a change in the Contract Price. Changes in Contract Price will be resolved in accordance with Article 11 of the General Conditions.

6.3.4 If at any time subsequent to the submission of the construction schedule, an event within the control of CONTRACTOR occurs which, in the opinion of CONTRACTOR, requires him to request approval to schedule Work during other than normal working hours, for his convenience and at no increase in Contract Price, he shall submit at least three (3) working days in advance of overtime period proposed a revised schedule to ENGINEER. If OWNER accepts the schedule, CONTRACTOR will be notified in writing.

6.3.5 If the work performed during other than normal working hours is not scheduled in accordance with the procedures described above, or if CONTRACTOR'S schedule is not accepted by OWNER, OWNER will invoice CONTRACTOR for the costs of overtime inspection which will include but may not be limited to costs for engineering, administrative expenses and other related costs. In the event CONTRACTOR fails to pay such costs within 30 days after receipt of an invoice from OWNER, the unpaid amount will be deducted from CONTRACTOR'S pay estimates and charged to the Contract.

6.3.6 CONTRACTOR shall light the parts of the work performed during other than normal working hours as required to comply with the Municipality or Agency with jurisdiction.

6.4 MATERIALS, EQUIPMENT AND LABOR: CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

6.5 MATERIALS AND EQUIPMENT:

6.5.1 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to ENGINEER, or any of engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of subparagraphs 9.13.3 or 9.13.4.

6.5.1.1 Manufacturer's warranty for all material, products and equipment to be furnished by the CONTRACTOR and to be incorporated into the completed work shall be furnished to the OWNER through the CONTRACTOR.

6.5.1.2 The manufacturer of all materials, products and equipment shall furnish complete information as to any special conditions, or restriction to be applied in the use of these items. Should the manner or method of installation, specified performance or test results as set forth in these specifications be contrary to the manufacturer's recommendations for use of the product, the manufacturer shall at once notify the CONTRACTOR who shall forward same to the ENGINEER for appropriate action. Lack of such notification shall be certification by the CONTRACTOR that specification requirements will be met by the material, products and equipment under project conditions.

6.5.1.3 Data submitted on all equipment shall include complete maintenance instructions and parts lists in sufficient detail to facilitate ordering replacements.

6.5.2 Any equipment proposed for installation by the CONTRACTOR shall meet the intent and provisions of the specifications. All equipment shall be equal in performance to that specified. Performance shall mean equal in quality of construction and materials, efficiency, ease of maintenance, reliability and ability to meet the design parameters on which the specifications are based. Service over the life of the equipment is another factor on which the specification is based and the CONTRACTOR shall provide a written assurance that local service and a manufacturers' representative are currently available to provide service.

6.5.3 It shall be the responsibility of the CONTRACTOR to make certain that any equipment included in his bid meets the above- listed requirements. The CONTRACTOR shall submit to the ENGINEER a list of similar installations by the

manufacturer of all major items of equipment to enable ENGINEER to determine their compliance with these drawings and specifications in regard to performance, design, arrangement and capacity. ENGINEER's out-of-pocket expenses to investigate and inspect similar installations of major items of equipment shall be paid by the CONTRACTOR.

6.6 ADJUSTING PROGRESS SCHEDULE: CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.6.1) adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

6.7 SUBSTITUTES OR "OR-EQUAL" ITEMS:

6.7.1 CONTRACTOR is to furnish only material and equipment named or specified in the Contract Documents except where the Contract specifically allows for substitutions after the Contract award. Provisions to submit proposals for substitute and "Or Equal" materials and equipment before Bid opening are included in the Instructions to Bidders.

6.7.2 If an item of material or equipment named or specified in the Contract Documents is unavailable after Contract award, CONTRACTOR shall provide prompt written notice to the ENGINEER, and with such notice propose a substitute item with sufficient data to allow ENGINEER's review to determine if the proposed substitute has the essential characteristics of the item named or specified and desired. Any such request for substitution shall be made in sufficient time (including time for ENGINEER's review of the request, OWNER's issuance of a Change Order or Work Directive Change, shop drawing submittal and review, fabrication and delivery of the item, etc.) in advance of the scheduled time for installation of the item to avoid delay to the work. Any cost savings resulting from such substitution shall be credited to the OWNER in a Change Order. Any increased costs resulting from the substitution shall be borne by the CONTRACTOR and the unavailability of the item shall not entitle the CONTRACTOR to an extension of Contract time, unless CONTRACTOR can establish that due to no fault of CONTRACTOR, CONTRACTOR's subcontractors or Suppliers, it was not possible to determine availability of the item before the Contract was awarded.

6.7.3 If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to ENGINEER, if CONTRACTOR submits sufficient information to allow ENGINEER to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in paragraph 6.7.1 as applied by ENGINEER.

6.7.4 ENGINEER will be allowed a reasonable time within which to evaluate each proposed substitute. ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without ENGINEER'S prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing.

6.8 CONCERNING SUBCONTRACTORS, SUPPLIERS AND OTHERS:

6.8.1 CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and ENGINEER as indicated in paragraph 6.8.2), whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection as to their responsibility. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

6.8.2 A Subcontractor or other person or organization identified in CONTRACTOR'S Bid and not objected to in writing by OWNER prior to the execution of the Agreement will be deemed acceptable to OWNER. All other Subcontractors shall be deemed to have been accepted if OWNER does not deliver a written objection thereto within 45 days after CONTRACTOR'S written identification of such Subcontractors. However, if, in accordance with the Louisiana Public Bid Law, OWNER has reasonable objection as to the responsibility of any Subcontractor whether identified in the Bid or subsequently, CONTRACTOR shall submit an acceptable substitute without entitlement to any change in the Contract Price. After acceptance by OWNER of any particular Subcontractor, CONTRACTOR shall make no

substitution without written approval of OWNER. No acceptance by OWNER of any such Subcontractor, supplier, or other person or organization shall constitute a waiver of any right of OWNER to reject defective work.

6.9 RESPONSIBILITY OF CONTRACTOR FOR SUBCONTRACTORS AND SUPPLIERS:

6.9.1 CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR'S own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.9.2 The CONTRACTOR shall coordinate the Work of Subcontractors to avoid conflicts and to assure clearances. Shop drawings of various trades shall be compared by CONTRACTOR before submittal to the ENGINEER for approval, to ascertain that the installation proposed does not conflict with the structured support or space requirement. The CONTRACTOR shall have full responsibility for satisfactory coordination and completion of all subcontract items.

6.9.3 The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade. The Divisions of the Specifications are complementary, and anything mentioned or shown in a Division of the Specifications or in a Specific Trade Drawing shall be of like effect as if shown in all Divisions of the Specifications and in all Drawings.

6.9.4 All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER and contains waiver provisions as required by paragraph 5.8. CONTRACTOR shall pay each Subcontractor a just share of any insurance moneys received by CONTRACTOR on account of losses under policies issued pursuant to paragraphs 5.4.1.2 and 5.5.2.1.

6.10 PATENT FEES AND ROYALTIES: (NOT USED)

6.11 PERMITS: Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses including appropriate NPDES/LPDES permits. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or if there are no Bids on the Effective Date of the Agreement, CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

6.12 LAWS AND REGULATIONS:

6.12.1 CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work including appropriate NPDES/LDPE regulations. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR'S compliance with any Laws or Regulations.

6.12.2 If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, CONTRACTOR shall give ENGINEER prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 3.4. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Laws or Regulations, and without such notice to ENGINEER, CONTRACTOR shall bear all costs arising therefrom; however, it shall not be CONTRACTOR'S primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws and Regulations.

6.13 TAXES: CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by

CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.14 USE OF PREMISES: CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Project site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against OWNER or ENGINEER by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or by law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER and ENGINEER harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against OWNER or ENGINEER to the extent based on a claim arising out of CONTRACTOR'S performance of the Work.

6.15 CLEANING PREMISES: During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the work CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.16 LOADING STRUCTURES: CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.17 RECORD DOCUMENTS: CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Directive Changes, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during the construction. These record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, samples and Shop Drawings will be delivered to ENGINEER for OWNER.

6.18 SAFETY AND PROTECTION: CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.18.1 All employees on the Work and other persons and organizations who may be affected thereby;

6.18.2 All the Work and materials and equipment to be incorporated whether in storage on or off the site.

6.18.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.18.2 or 6.18.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by

CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR). CONTRACTOR'S duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.13 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.19 SAFETY REPRESENTATIVE: CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR'S superintendent unless otherwise designated in writing by CONTRACTOR to OWNER.

6.20 EMERGENCIES: In emergencies affecting the safety or protection of persons, the Work, or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from ENGINEER or OWNER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice if any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variations.

6.21 SHOP DRAWINGS: After checking and verifying all field measurements, CONTRACTOR shall submit to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 2.9), five copies of all Shop Drawings, unless otherwise indicated in the Supplemental Conditions, which will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as ENGINEER may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specific performance and design criteria, materials and similar data to enable ENGINEER to review the information as required.

6.22 SAMPLES: CONTRACTOR shall also submit to ENGINEER for review and acceptance with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

6.23 SHOP DRAWINGS AND SAMPLES SUBMISSION REQUIREMENTS:

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

6.23.2 At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted to ENGINEER for review and acceptance of each such variation.

6.24 ENGINEER'S REVIEW OF SHOP DRAWINGS AND SAMPLES:

6.24.1 ENGINEER will review and approve with reasonable promptness Shop Drawings and samples, but ENGINEER'S review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make any corrections required by ENGINEER and shall return the required number of corrected copies of Shop

Drawings and submit as required new samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.24.2 After his first review and comments on the Shop Drawings and samples the ENGINEER will either give his approval in accordance with the provisions of paragraphs 6.24.1, or request changes and corrections as noted. The CONTRACTOR shall then make changes and corrections noted and return them to the ENGINEER. If the Shop Drawings and samples are then acceptable, the ENGINEER will return them to the CONTRACTOR, as approved. However, if further revisions are required, ENGINEER'S cost and expenses of further review shall be paid by the CONTRACTOR.

6.24.3 ENGINEER's review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER'S attention to such variation at the time of submission as required by paragraph 6.23.2 and ENGINEER has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 6.23.1 and 6.23.2.

6.24.4 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to ENGINEER'S review and approval of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

6.25 CONTINUING THE WORK: CONTRACTOR shall carry on the work and adhere to the progress schedule during all disputes or disagreements with OWNER. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.5 or as CONTRACTOR and OWNER may otherwise agree in writing.

6.26 INDEMNIFICATION:

6.26.1 To the fullest extent permitted by law, the CONTRACTOR shall protect, defend, indemnify, save and hold harmless the OWNER, including all Parish Departments, its elected and appointed officials, Agencies, Councils, Boards and Commissions, Districts, their officers, agents, servants and employees, including volunteers, from and against any and all claims, demands, expense, losses, suits, costs, actions, fines, penalties, actions, and liability, whether actual or alleged, arising out of or resulting from injury, sickness, disease or death to any person or the damage, loss, expense or destruction of any property, including loss of use resulting therefrom, which may occur, be caused by, or in any way resulting from any actual or alleged act, omission, negligence, misconduct, or strict liability of CONTRACTOR, its agents, its sub-contractors, partners, servants, officers employees, volunteers, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, related to the performance or non-performance of the contract herein entered into, including any and all costs, fines, penalties, expense and/or attorney fees, including but not limited to expert witness fees, incurred by the OWNER, all Parish Departments, its elected and appointed officials, Agencies, Councils, Districts, Boards and Commissions, their officers, agents, servants and employees, including volunteers, as a result of any such claims, demands and/or causes of action except those arising out of the.... solenegligence of the OWNER, all Parish Departments, its elected and appointed officials, Districts, Agencies, Councils Boards and Commissions, their officers, agents servants and employees, including volunteers. The CONTRACTOR shall investigate, adjust, settle, contest to resolution, resist claims, handle, respond to, provide defense for and defend any such claims, demands, proceedings, judgments, or suits at its sole expense related thereto, even if such claim, proceeding, judgment, demand or suite is groundless, false or fraudulent.

6.26.2 In any and all claims against OWNER or ENGINEER or any of their consultants, agents or employees by any employee of CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph 6.26 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

6.26.3 The obligations of CONTRACTOR under this paragraph 6.26 shall not extend to the liability of ENGINEER, his agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or Specifications.

6.27 PROJECT MEETINGS: CONTRACTOR, along with appropriate Subcontractors, shall attend project meetings requested by OWNER for the purpose of discussing and resolving matters concerning the various elements of the work.

6.28 CONTRACTOR shall perform all work under this Agreement as an independent contractor and shall not be considered as an agent, employee, or servant of OWNER, nor shall CONTRACTOR'S subcontractors, employee's agents or servants, be considered to be agents, employees, or servants of OWNER.

6.29 QUALITY CONTROL:

6.29.1 CONTRACTOR shall establish a quality control system, narrative in style, to perform sufficient supervision, inspection and testing of all items of work including that of his Subcontractors to insure conformance to applicable Specifications and Drawings with respect to the material, workmanship, construction, finish, functional performance and identification. CONTRACTOR'S quality control system will specifically include the surveillance of the tests required in the technical provisions of the Specifications. A person shall be placed in charge of the CONTRACTOR'S quality control system and that person shall be other than the CONTRACTOR'S superintendent.

6.29.2 CONTRACTOR'S quality control will specifically include the checking, approval and coordination of all Shop Drawings, the ascertaining of the compliance of all items with specification requirements and the tests required in the technical provisions of the specifications, a procedure for preparing non-conformance reports, and completing a Daily Quality Control Report.

6.29.3 CONTRACTOR has the sole responsibility for compliance of the construction with the requirements of the Drawings and Specifications and the quality control system shall be such that this compliance is assured.

6.29.4 The quality control person shall, in the presence of the OWNER'S, check all contractor established elevations, the location of all underground pipelines and electrical conduits before covering begins, all reinforcing steel before pouring concrete, and any other item which cannot be located and inspected when work is complete. Data obtained shall be recorded by the quality control person on the record documents.

6.29.5 Within ten days after the date of the Agreement, CONTRACTOR shall furnish ENGINEER a quality control plan which shall include the name and experience record of the person in charge, procedures, instructions and reports to be used.

6.29.6 The form of Quality Control Daily Report is shown in Exhibit "B". This form shall be completed by the CONTRACTOR and each sub-contractor. This daily report shall include complete information as to personnel and equipment being utilized on the project along with a summary of work activities, (i.e., footage of various pipe laid, piles driven, equipment installed etc.) for each days work. These daily reports shall be included with CONTRACTOR'S monthly application for payment. The application for payment will be considered incomplete and will not be processed without inclusion of the Quality Control Daily Reports.

ARTICLE 7 - Other Work

7.1 RELATED WORK AT SITE: OWNER may perform other work related to the Project at the site by OWNER'S own forces, have other work performed by utility owners or let other direct contracts which shall contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to CONTRACTOR prior to starting any such other work.

7.2 ACCESS TO THE SITE: CONTRACTOR shall afford each utility owner and other contractor who is a party to such a direct contract (or OWNER, if OWNER is performing the additional work with OWNER'S employees) proper

and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with theirs. CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected.

7.3 ACCEPTANCE OF THE WORK OF OTHERS: If any part of CONTRACTOR'S Work depends for proper execution or results upon the work of any such other CONTRACTOR or utility owner (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER in writing any delays, defects or deficiencies in such work that render it unsuitable for such proper execution and results. CONTRACTOR'S failure so to report shall constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR'S Work except for latent or non-apparent defects and deficiencies in the other work.

7.4 COORDINATION:

7.4.1 Whenever Work to be performed by CONTRACTOR is dependent upon the work of other parties, CONTRACTOR shall coordinate that Work with the dependent work to the same extent that CONTRACTOR is required to coordinate dependent Subcontractor Work. Installation of Work by CONTRACTOR, directly or through a Subcontractor, in any given area, shall constitute acceptance by CONTRACTOR (including the Subcontractor) of all previously placed dependent work.

7.4.2 If OWNER contracts with other parties for other work, ENGINEER will have the authority and responsibility for coordinating activities of CONTRACTOR and those parties, unless another person or organization with specific authority and responsibility for coordination of the CONTRACTOR and those other parties is expressly designated in the Supplementary Conditions or at the pre-construction conference.

7.4.3 If OWNER contracts with other parties for other work, CONTRACTOR shall be responsible for cooperating with ENGINEER fully in the coordination of CONTRACTOR's Submittals with dependent Submittals of those other parties whose work in any way relates or depends upon the Work, or visa versa. When submitted to ENGINEER any such coordinated Submittal of CONTRACTOR shall identify by specific notation, within or attached to that Submittal, each and every item of interface with the other work.

7.5 MUTUAL DUTIES AND RESPONSIBILITIES:

7.5.1 If CONTRACTOR causes damage to the work or property of others, or if a claim arising out of CONTRACTOR's execution of Work is made by another party against CONTRACTOR, OWNER, or ENGINEER, CONTRACTOR shall promptly attempt to settle with that party by agreement or otherwise resolve the claim. CONTRACTOR shall defend, indemnify and hold harmless OWNER, ENGINEER and others as provided in paragraph 5.2, from and against all claims arising out of or resulting from damage by CONTRACTOR to the work or property of others or from CONTRACTOR's execution of the Work.

7.5.2 If another party causes damage to Work or property of CONTRACTOR, or if the performance of other work results in any claim by CONTRACTOR, CONTRACTOR shall promptly attempt to settle with that party by agreement or otherwise resolve the claim. CONTRACTOR shall not begin any action against OWNER or ENGINEER, their consultants, agents or any of their directors, officers, shareholders, agents or employees, or others indemnified as provided in paragraph 5.0, or permit any action against them to be maintained in CONTRACTOR's name or for CONTRACTOR's benefit before any court or tribunal, which action seeks to impose any liability or recover any damages from OWNER or ENGINEER for such claim.

7.5.3 Except as excluded in paragraph 7.5.4, if any party performing other work causes suspension of Work resulting in unreasonable delay under the circumstances, and if, upon a request from CONTRACTOR, OWNER concludes that any such delay requires a change in Contract Price or Contract Time, OWNER shall, pursuant to Articles 10 through 12, authorize such a change in Contract Price or Contract Time, or both.

7.5.4 If a party performing other work is granted an extension in a contract time only (based on unreasonable delay

under circumstances not caused in whole or in part by acts or omissions of that party, OWNER, ENGINEER or OWNER's representative on that other work), and if, upon a request from CONTRACTOR, OWNER concludes that the extension granted to the other work requires a change in a coterminous Contract Time in the Contract Documents, OWNER shall authorize the necessary change in Contract Time only.

7.6 CONTRACTOR'S RESPONSIBILITY FOR OWNER COSTS: If CONTRACTOR becomes involved in settling or otherwise resolving claims with other persons performing other work arising out of events covered under paragraphs 7.5.1 or 7.5.2, or because of any other similar controversy, including damage to the Work or other work or a dispute about responsibility for clean-up or any other issue, neither OWNER, ENGINEER, nor any of their consultants, agents nor any of their directors, officers, stockholders nor employees will be involved in any way in such actions (except if subpoenaed). If OWNER incurs costs contrary to the provisions of this Article, CONTRACTOR shall reimburse those costs to the OWNER.

ARTICLE 8 - Owner's Responsibilities

8.1 Written communications from OWNER to CONTRACTOR will generally be issued through ENGINEER. If the need arises to issue written communication directly, a copy will be issued concurrently to ENGINEER. Written communications from CONTRACTOR to OWNER shall be issued to ENGINEER (and include two (2) copies for OWNER); from Subcontractor or Suppliers shall be issued through CONTRACTOR.

8.2 In case of termination of the employment of ENGINEER, OWNER shall appoint another ENGINEER whose status under the Contract Documents shall be that of the former ENGINEER. Any dispute in connection with such appointment shall be subject to the provisions of Article 16.

8.3 OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly after they are due as provided in paragraphs 14.4 and 14.13.

8.4 OWNER'S duties in respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER'S identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and in existing structures which have been utilized by ENGINEER in preparing the Drawings and Specifications.

8.5 OWNER is obligated to execute Change Orders, either unilateral or negotiated, in OWNER's sole discretion, covering necessary changes in the work.

8.6 OWNER'S responsibility in respect to certain inspections, tests and approvals is set forth in paragraph 13.4.

8.7 In connection with OWNER'S right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with OWNER'S right to terminate services of CONTRACTOR under certain circumstances.

ARTICLE 9 - Engineer's Status during Construction

9.1 OWNER'S REPRESENTATIVE: The OWNER will provide an OWNER'S representative during the construction period. The duties and responsibilities and the limitations of authority of OWNER'S representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER.

9.2 VISITS TO SITE: In addition to the OWNER's representative, ENGINEER will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. Neither the OWNER's representative nor the ENGINEER will be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER'S efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-

site observations as an experienced and qualified design professional, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defects and deficiencies in the Work.

9.4 CLARIFICATIONS AND INTERPRETATIONS: ENGINEER will issue with reasonable promptness such written clarification of interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefore as provided in Article 11 or Article 12 of the General Conditions.

9.5 AUTHORIZED VARIATIONS IN WORK:

9.5.1 ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER, and also on CONTRACTOR who shall perform the Work involved promptly. If CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or an extension of the Contract Time and the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Article 11 or 12.

9.5.2 ENGINEER shall prepare change orders at OWNER'S request, and when required by the contract documents, ENGINEER shall set the price and/or time adjustments he deems reasonable.

9.6 REJECTING DEFECTIVE WORK: ENGINEER, based on its observations, reports of resident engineer(s) will have authority to disapprove or reject Work at any time during the construction of the Work, which does not conform to the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the work as provided in Paragraph 13.9, whether or not the Work is fabricated, installed, or completed. When CONTRACTOR has been notified by ENGINEER of disapproval or rejection of non-conforming Work, CONTRACTOR shall take immediate action to correct same.

9.7 SHOP DRAWINGS: In connection with ENGINEER'S responsibility for Shop Drawings and samples, see paragraphs 6.21 through 6.25, inclusive.

9.8 CHANGE ORDERS: In connection with ENGINEER'S responsibilities for Change Orders, see Articles 10, 11 and 12.

9.9 PAYMENTS: In connection with ENGINEER'S responsibilities in respect of Applications for Payment, etc., see Article 14.

9.10 DETERMINATIONS FOR UNIT PRICES: ENGINEER will determine the actual quantities and classifications of unit price work performed by CONTRACTOR. Engineer will review with CONTRACTOR ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application of Payment or otherwise). ENGINEER's written decision will be final and binding on CONTRACTOR, unless within ten days after the date of any such decision, CONTRACTOR delivers to the ENGINEER and OWNER written notice of intention to appeal the ENGINEER's decision.

9.11 DECISIONS ON DISPUTES: ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims under Articles 11 and 12 in respect of changes in the Contract Price or Contract Time will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter shall be delivered by the claimant to ENGINEER and the other party to the Agreement promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within sixty days of after such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim.

9.12 When functioning as interpreter and judge under paragraphs 9.10 and 9.11, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to paragraph 9.10 and 9.11 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.16) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter.

9.13 LIMITATIONS ON ENGINEER'S RESPONSIBILITIES:

9.13.1 Neither ENGINEER'S authority to act under this Article 9 or elsewhere in the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

9.13.2 Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved", or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used to describe requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.13.3 or 9.13.4.

9.13.3 ENGINEER will not be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for CONTRACTOR'S failure to perform or furnish the Work in accordance with the Contract Documents.

9.13.4 ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

ARTICLE 10 - Changes in the Work

Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Change Order, Field Order, or a Work Directive Change. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

10.1 CHANGE ORDERS: Change Orders shall be submitted using the Change Order AIA G701 form unless otherwise determined. Change orders may be issued by OWNER in one of the following manners:

10.1.1 Bilateral change order: Type of order issued to CONTRACTOR when OWNER and CONTRACTOR have agreed on the price and time adjustment made necessary by the particular change order.

10.1.2 Unilateral change order: Type of order issued to CONTRACTOR when OWNER and CONTRACTOR cannot agree on the price and/or time adjustment necessitated by the particular change order, within the scope of the project. The OWNER will issue the unilateral change order setting forth such price and/or time adjustments that ENGINEER shall deem reasonable. Any dispute in connection with the issuance of a unilateral change order shall be subject to the provisions of paragraph 9.11 and Article 16.

10.2 CHANGE ORDER CLAIM: If OWNER and CONTRACTOR are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Work Directive Change or Change Order, a claim may be made therefore as provided in Article 11 or Article 12.

10.3 CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.4 and 3.5, except in the case of an emergency as provided in paragraph 6.20 and except in the case of uncovering Work as provided in paragraph 13.9.

10.4 OWNER and CONTRACTOR shall execute appropriate Change Orders covering:

10.4.1 Changes in the Work which are ordered by OWNER pursuant to Article 10, are required because of acceptance of defective Work under paragraph 13.13 or correcting defective Work under paragraph 13.14 or are agreed to by the parties;

10.4.2 Changes in the Contract Price or Contract Time which are agreed to by the parties; and

10.4.3 Changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 9.11; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.25.

10.5 If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Time) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR'S responsibility, and the amount of each applicable Bond will be adjusted accordingly.

10.6 WRITTEN PROPOSALS: At any time ENGINEER may request a quotation from CONTRACTOR for a proposed change in the Work. Within 15 calendar days after receipt of a Notice of a Proposed Change, unless otherwise indicated in the Notice, CONTRACTOR shall submit a written and detailed proposal for an increase or decrease in the Contract Price or Contract Time corresponding to the proposed change. The proposal shall include an itemized estimate of all costs and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in accordance with the requirements of Articles 11 and 12 and in sufficient detail to reasonably permit an analysis by ENGINEER of all material, labor, equipment, subcontract, and overhead costs and fees and shall cover all aspects of the work involved in the change, whether such was deleted, added, changed, or impacted. Any amount claimed for subcontracts shall be similarly supported. Itemized schedule adjustments shall be in sufficient detail to permit an analysis of impact. Notwithstanding the request for quotation, CONTRACTOR shall carry on the Work and maintain the progress schedule. Delays in the submittal of the written and detailed quotation will not constitute a basis for an increase in contract time.

10.7 FIELD ORDER: ENGINEER may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order or in the approval of a shop drawing or sample, and shall be binding on CONTRACTOR. CONTRACTOR shall proceed with the performance of the changes in the Work so authorized by ENGINEER unless CONTRACTOR believes that such Field Order or approved shop drawing or sample entitles him to a change in the Contract Price or Time, or both, in which case CONTRACTOR shall give ENGINEER a written Notice of a Proposed Change thereof along with supporting documentation within 3 days of receipt of the Field Order or the approved shop drawing or sample and prior to commencing work. CONTRACTOR shall document the basis for the change in Contract Price or Time in accordance with paragraph 10.6 and the requirements of Article 11 and Article 12. Request for a Change Order to adjust Contract Price or Time arising out of a Field Order or an approved shop drawing will not be considered without the attachment thereto of a copy of the referenced Field Order or approved shop drawing. No claim by CONTRACTOR will be allowed if The Notice of a Proposed Change is submitted after Work on the Field Order or the approved shop drawing or sample has commenced, or after Final Payment under this Agreement.

10.8 CONTRACTOR'S ACCEPTANCE OF A CHANGE ORDER: The increase or decrease in Contract Price or Contract Time, or both stated in a Change Order signed by CONTRACTOR shall unequivocally comprise the total price and/or time adjustment due or owed for the Work or changes defined in the Change Order. By executing a Change Order, CONTRACTOR acknowledges and agrees that the stipulated increases or decreases in Contract Price and/or time represent full compensation for all increases or decreases in the cost of or the time required to perform the entire Work under the contract arising directly or indirectly from the change, including the costs and delays associated with the interruption of schedules, extended overheads, delay, loss of momentum, acceleration to overcome delays and loss of momentum, and cumulative impacts or ripple effect on all other non-affected work under this contract. Such signing of a Change Order constitutes full and mutual accord and satisfaction for the adjustment in Contract Price or time as a result of increases or decreases in costs and time of performance caused directly and indirectly from the change, subject to the current scope of the Work as set forth in the Contract Documents. Acceptance of this waiver constitutes an agreement between OWNER and CONTRACTOR that the Change Order represents an equitable adjustment to the Contract, and that CONTRACTOR will waive all rights to file a claim on the Change Order after it is properly executed by OWNER and CONTRACTOR

10.9 If upon the review of any proposal or claim submitted by CONTRACTOR, ENGINEER or OWNER determines that an adjustment or that no adjustment in Contract Price or Contract Time is justified under the Contract documents, that determination shall be final and binding on CONTRACTOR unless CONTRACTOR files a subsequent written notice of claim in the form of a Notice of Proposed Change in accordance with Articles 11 and 12, referencing the disputed determination, and CONTRACTOR furnishes any additional supporting data requested by ENGINEER or OWNER.

ARTICLE 11 - Change of Contract Price

11.1 The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

11.2 The Contract Price may only be changed by a Change Order CONTRACTOR shall notify ENGINEER by means of a Written Notice of a Proposed Change within fifteen days, or earlier if so required elsewhere in the Contract Documents, of the occurrence of an event which CONTRACTOR believes entitles him to a change in the Contract Price. Supporting data shall be delivered within fifteen days of such notice or within thirty days of such occurrence, whichever is later, unless OWNER allows an additional period of time to ascertain accurate cost data. CONTRACTOR must prove that additional costs were necessarily incurred which meet the criteria set forth in Paragraph 10.4, despite CONTRACTOR'S reasonable, prudent, and diligent efforts to prevent such costs. Failure of CONTRACTOR to comply with the time requirements for written Notice of a Proposed Change or for submittal of supporting data shall be considered to be a waiver by CONTRACTOR of any claim for an addition to the Contract Price.

11.3 The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

11.3.1 LUMP SUM PRICES INCLUDED IN THE CONTRACT: Where the Work involved is covered by lump sum prices included in the Proposal Documents, Schedule of Contract Items and Unit Price; the Contract Price shall be adjusted by the lump sum prices.

11.3.4 NEGOTIATED LUMP SUM: If the Contract Price is adjusted on the basis of an agreed to Lump Sum, and the costs are estimated in accordance with this Article 11.

11.3.5 COST OF THE WORK: If OWNER and CONTRACTOR cannot agree that any of the methods described in 11.3.1, 11.3.2, 11.3.3 or 11.3.4 above are appropriate for the proposed work, OWNER may direct CONTRACTOR to proceed on the basis of actual costs in accordance with Article 11.

11.3.6 UNILATERAL CHANGE ORDER: If OWNER and CONTRACTOR cannot agree on the price and/or time adjustment necessitated by the particular proposed change order, the OWNER may issue a unilateral change order setting forth

such price and/or time adjustments that ENGINEER shall deem reasonable.

11.4 COST OF THE WORK: The term Cost of the Work means the sum of all costs necessarily incurred and paid by the CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5:

11.4.1 The Cost of the Work involved includes payroll costs for CONTRACTOR's craft labor, including foremen, assigned to the site and engaged in furnishing and incorporating materials or equipment in the Work involved. Labor work hours shall not exceed current "Means open Shop Building Construction Cost data" applicable to the work involved. Payroll costs shall include wages and may include those labor burdens expressly certified in advance by a duly authorized financial representative of CONTRACTOR and so approved by OWNER, Examples of labor burdens include social security, unemployment taxes, worker's compensation, health and retirement benefits, vacation and holiday pay. When determining actual payroll costs under paragraph 11.3.5: (a) contemporaneously, daily time sheets certified by CONTRACTOR and verified by ENGINEER along with certified payroll records shall be valid records; (b) after-the-fact daily time sheets shall be valid only if they expressly correlate to the Work involved, and if recorded at that time and used for payroll.

11.4.2 The Cost of the Work involved includes payments by CONTRACTOR to Suppliers for material and equipment used in the Work involved, including transportation, storage and necessary Suppliers' field services. All trade discounts, rebates and refunds and all returns from sale of surplus items shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained. If required by OWNER, CONTRACTOR shall obtain bids for designated materials or equipment and nominate at least two (2) Suppliers for selection by OWNER. When determining actual Supplier costs, invoices segregating items associated with the Work involved shall be the record upon which to base actual costs.

11.4.3 The Cost of the work involved includes payments made by the CONTRACTOR to Subcontractor for the Work involved performed by the Subcontractor. The methods for calculating Subcontractors' costs shall be the same as for CONTRACTOR costs, except that the term Subcontractor shall replace the term "CONTRACTOR", context permitting. If OWNER requires, CONTRACTOR shall obtain detailed competitive sub-bids and nominate at least two (2) Subcontractors for the performance of any work involved for selection by OWNER.

11.4.3.1 All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4 Construction Equipment Costs: The Cost of the work involved includes costs for individual construction equipment with replacement value in excess of \$1,000,000. Transportation, loading and unloading, installation, dismantling and removal costs shall be allowed only if prior consent is obtained from ENGINEER, and if equipment is, or was, transported to the site solely for the Work involved. Shipping costs will be allowed if the equipment requires the use of a carrier, and provided the travel distance does not exceed that for equipment in St. John the Baptist Parish. When multiple attachments are used, only the highest cost attachment shall be recoverable. Equipment costs shall cease when the equipment is no longer needed for the Work involved. Payroll costs for labor operating the equipment are as specified in paragraph 11.4.1. Equipment costs shall be computed using the same accounting and estimating rules and prices, whether related to added or deleted Work.

11.4.4.1 When determining actual construction equipment costs under paragraph 11.3.5: (a) contemporaneously, daily logs of the equipment, operators and actual usage, verified by ENGINEER, shall be the valid records; (b) after-the-fact, such daily records shall be valid only if developed when the Work involved was performed and used for accounting purposes.

11.4.4.2 Rented or owned equipment at the site, idled solely by actions of OWNER or ENGINEER, shall be paid at the rates for rented equipment, or based on fifty percent (50%) of the rates for owned equipment, respectively, provided that the idle period exceeds that normally experienced for such equipment and occurs during normal working hours.

11.4.4.3 Rented or Leased Construction Equipment: Construction equipment rented or leased from third parties shall be priced using either the specific rates negotiated between OWNER and CONTRACTOR (based on the actual rental or lease agreements), or in the event that no agreement is reached, using those rates listed in the Rental Rate "Blue Book" published by Dataquest, Inc. for the region covering the New Orleans metropolitan area and applicable to the equipment (model number and year), but in no event shall the rate exceed those issued by local equipment rental companies within St. John the Baptist Parish. The equipment rate for second or third shift Work shall not exceed fifty percent (50%) of the base rate. Operating costs shall not exceed the hourly operation rate in the Blue Book. Hourly rates for equipment previously in use on the work for at least a month shall be based on the monthly rate divided by 176 hours. Equipment previously in use for only one week or not previously in use at the site shall not be invoiced to OWNER at rates higher than the following schedule of equipment use and payment category: applicable to equipment listed in the Rental Rate "Blue Book"

Less than 8 hours	Hourly Rate
1 day but less than 7 days	Daily Rate
1 week but less than 30 days	Weekly Rate
30 days or more (when in use)	Monthly Rate

11.4.4.4 Owned Construction Equipment: Construction equipment Owned by CONTRACTOR, or rented or leased from lessors associated with or owned by CONTRACTOR, shall be priced using either the specific rates negotiated between OWNER and CONTRACTOR (based on rates consistent with CONTRACTOR's normal accounting practices), or in the event that no agreement is reached, using the rates listed in the "Contractor's Equipment Cost Guide" published by Dataquest, Inc. for the region covering the New Orleans metropolitan area, but in no event shall the equipment ownership costs exceed rental rates of local equipment rental companies within St. John the Baptist Parish and operating costs shall not exceed the hourly operation rate in the Blue Book. For multiple shifts, rates shall not exceed the shift Work adjustments recommended in the "Contractor's Equipment Cost Guide".

11.4.5 Supplemental costs including the following:

11.4.5.1 The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR'S employees incurred in discharge of duties connected with the Work.

11.4.5.2 Costs of field supplies and purchase costs (less market value if not consumed) of tools individually valued at less than \$1,000 that are not owned by the workers, if CONTRACTOR provides an itemized list of the field supplies and tools required for the performance of the Work involved; however, no such costs shall be allowed over 4% of the labor costs under paragraph 11.4.1, excluding burdens, unless CONTRACTOR furnishes detailed data sufficient to allow verification that a higher percentage is appropriate for the work involved.

11.4.5.3 Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

11.4.5.4 Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

11.4.5.5 Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by CONTRACTOR in connection with the performance and furnishing of the Work, provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's Fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph

11.6.2.

11.4.5.6 The costs of utilities, fuel and sanitary facilities at the site.

11.4.5.7 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

11.4.5.8 Cost of premiums for additional Bonds and insurance required because of changes in the Work.

11.5 The term Cost of the Work shall not include any of the following:

11.5.1 Payroll costs and other compensation of CONTRACTOR'S officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in his principal or a branch office for general administration of the Work, all of which are to be considered administrative costs covered by the Contractor's Fee.

11.5.2 Expenses of CONTRACTOR'S principal and branch offices other than CONTRACTOR'S office at the site.

11.5.3 Any part of CONTRACTOR'S capital expenses, including interest on CONTRACTOR'S capital employed for the Work and charges against CONTRACTOR for delinquent payments.

11.5.4 Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 11.4.4.9 above).

11.5.5 Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

11.5.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

11.5.7 Attorney's Fees and/or Court Costs.

11.5.8 Costs or fees of consultants retained or utilized by CONTRACTOR, or his agents, for the purpose of making or filing a claim against OWNER, pursuing litigation or defending any claim and/or dispute.

11.5.9 CONTRACTOR shall not be allowed to include as part of the Cost of the Work involved any construction equipment or supplemental costs that cannot be shown to increase on account of, or are not directly attributable to, the performance of the Work involved. Payroll costs for the full time resident superintendent included within the requirements of paragraph 6.2.1 are but one example of such costs.

11.6 CONTRACTOR'S FEE: The CONTRACTOR'S fee allowed to CONTRACTOR for overhead and profit shall be determined by negotiations. The objective of negotiations shall be the exercise of sound business judgment including a fair and reasonable profit based on assumptions of risk, exposure to weather, size of the change, percent of subcontracted work, equipment requirements, and time of performance. In no case, however, shall the fee for overhead and profit exceed the following percentages of the various portions of the Cost of the Work:

11.6.1 For costs incurred under paragraphs 11.4.1 and 11.4.2, the CONTRACTOR'S fee shall not exceed 15%;

11.6.2 For costs incurred under paragraph 11.4.3, and for work performed by a CONTRACTOR'S Subcontractor, the CONTRACTOR'S fee shall not exceed 10% and the Subcontractor's fee shall not exceed 15%; for costs incurred under paragraph 11.4.3, and Work performed by a Subcontractor's Subcontractor, the CONTRACTOR'S and the Subcontractor's fee shall not exceed 5% and 5%, and the Subcontractor's fee shall not exceed 15%.

11.6.3 No fee shall be payable on the basis of costs itemized under paragraphs 11.4.4 and 11.5.

11.6.4 The amount of credit to be allowed by CONTRACTOR to OWNER for any such a change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in CONTRACTOR'S fee in accordance with the following:

11.6.5 When both additions and credits are involved in one change, and the additions exceed the credits, the adjustment in CONTRACTOR'S fee shall be computed on the amount by which the additions exceed the credits, except that no adjustments shall be allowed on the costs developed in accordance with paragraph 11.3.1;

11.6.6 When both additions and credits are involved in one change, and the credits exceed the additions, CONTRACTOR will be allowed to retain fee on the amount by which the credits exceed the additions, except that no adjustment shall be allowed on the costs developed in accordance with paragraph 11.3.1 or 11.3.2.

11.7 Whenever the cost of any Work is to be determined pursuant to paragraph 11.4 or 11.5, CONTRACTOR will submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

11.8 Bidders shall submit the included Louisiana Uniform Public Work Bid Form with bid. Each bid item shall be its own Item unit price or "Lump Sum" unit price, whichever applicable. Upon receipt of contract, the Contractor shall provide an itemized Schedule of Values.

11.9 UNIT PRICE WORK: (NOT USED)

ARTICLE 12: Change of Contract Time

12.1 The Contract Time may only be changed by a Change Order. Any claim or request for an extension in the Contract Time shall be based on a written Notice of a Proposed Change delivered to ENGINEER within seven days, or earlier if so required in the Contract Documents, of the occurrence of the event giving rise to the request or claim. Supporting data as to the extent of the request or claim shall be delivered within fifteen days of such Notice, or within twenty-two days of the event giving rise to the occurrence, whichever is later, unless ENGINEER allows an additional period of time to ascertain more accurate data. CONTRACTOR must prove that extensions to the Contract Time have materialized which meet the combined criteria set forth in paragraph 12.2 below and Official Progress Schedules of the General Requirements, despite CONTRACTOR'S reasonable, prudent, and diligent efforts to prevent or overcome such delays. Failure of CONTRACTOR to comply with the time requirements for written Notice or for submittal of supporting data shall be considered to be a waiver by CONTRACTOR of any claim for an extension in the Contract Time.

12.2 The Contract Time will be extended in an amount equal to the time lost due to delays beyond the control and without the fault of CONTRACTOR, and which CONTRACTOR could not have guarded against, if a claim is made therefore as provided in Paragraph 12.1 and is substantiated to the satisfaction of OWNER. Such delays may include, but not limited too, unusually severe weather, sink holes, archaeological finds, acts of God, acts of the public enemy, acts of OWNER in either its sovereign or contractual capacity, furnishing of lands, right-of-way or easements by OWNER, acts of another CONTRACTOR in the performance of a Contract with OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or delays of Subcontractors of Suppliers at any tier arising from causes other than normal weather beyond the control and without the fault or negligence of both CONTRACTOR and such Subcontractors and Suppliers; and further provided that

12.2.1 The Contract Time is extended only to the extent that the delay is unreasonable under the Contract, which is the extent the delays set forth in paragraph 12.2 above exceed the Total Float Time available in the Official Schedule and extend completion of the Work, or specified part of the work, beyond the corresponding Contract Time.

12.3 If upon evaluation of CONTRACTOR'S analysis, OWNER justifies an extension in Contract Time under paragraph 12.1 through 12.3 for delay not caused in whole or in part by acts or omissions within the control of OWNER or ENGINEER, the OWNER shall authorize the necessary change in Contract Time only.

12.4 COMPENSABLE DELAY:

12.4.1 Unless otherwise excluded in the Contract Documents, an extension in Contract Time may be combined with an increase in Contract Price to the extent the delay was not concurrent with CONTRACTOR delay, was caused in whole or in part by acts or omissions within the control of OWNER or ENGINEER and is due to one of the following: Underground Facilities that are not shown (i.e., previously unknown); an emergency; objection, for OWNER's convince, to a Subcontractor, historic resources, uncovering of work not found to be defective under paragraph 13.9; delay under paragraph 7.5.3 or any other suspension of Work; changes in the Work; differing site conditions; and variation in quantities.

12.4.2 Changes in Contract Price for extensions in Contract Time may include increase in the Cost of the Work, as provided in Article 11, related to the extension in Contract Time, but shall exclude costs that are unaffected or do not relate to the extension in Contract Time, such as: (a) operating costs of construction equipment assigned to the Work on a continuous basis but primarily used in the furnishing and incorporating of materials/equipment into the Work, (b) operating costs and owned/rental costs of construction equipment used solely in the furnishing and incorporating of materials/equipment into the Work (crane used for specific lifts, concrete pump used for specific pours, etc.), and fully paid site facilities, tools, etc.

12.4.3 If a delay meeting the conditions of paragraph 12.4.1 delays Substantial completion of the Work beyond the Contract Time for Substantial Completion, OWNER shall negotiate with CONTRACTOR the reimbursement of an amount to cover administrative costs (under paragraphs 11.5.1 through 11.5.4) that will be or were unabsorbed prior to the expiration date of that contract Time. Reimbursement shall be based on the lesser of (a) five percent (5%) times that portion of the Contract Price remaining un-billed, less retainage, prior to the expiration of that Contract Time, or (b) the product of that un-billed portion of the Contract Price times the (company wide) ratio of CONTRACTOR's administrative costs to billings, or (c) that amount derived by an application of the Eichleay formula.

12.4.4 CONTRACTOR shall not recover from OWNER (a) acceleration costs incurred to overcome delays which warrant extensions in Contract Time but exclude changes in Contract Price, (b) escalation costs for any part of the Work not delayed beyond the Late Dates in the Official Schedule, or (c) delay costs not expressly allowed in this Article.

ARTICLE 13 - Warranty and Guarantee; Tests and Inspections: Correction, Removal or Acceptance of Defective Work

13.1 WARRANTY AND GUARANTEE: CONTRACTOR warrants and guarantees to OWNER and ENGINEER that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of observed defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 13.

13.1.1 The obligations of CONTRACTOR under this Paragraph 13.1 shall be in addition to and not in limitation of any obligation imposed upon him by special guarantees required by the Contract Documents or otherwise prescribed by law.

13.1.2 In special circumstances where a particular item of equipment or part of the Work reaches Substantial Completion upon successful performance of Pre-operational Testing, and notwithstanding anything in the Contract Documents to the contrary, CONTRACTOR shall maintain the particular item of equipment or part of the Work in good order and in proper working condition during the period between Substantial Completion and Initiation of

Operation, and for such maintenance CONTRACTOR shall receive no adjustment to the Contract Price.

13.1.3 The warranty or guarantee provided by CONTRACTOR under Paragraph 13.1 of the General Conditions shall remain in full effect throughout the period from the date of Initiation of Operation of the entire work to the end of the Correction Period (as that term is defined in these General Conditions).

13.2 ACCESS TO WORK: ENGINEER and ENGINEER's representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspection and testing. CONTRACTOR shall provide proper and safe conditions for such access.

13.3 NOTICE OF TESTS AND INSPECTIONS: CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals.

13.4 TESTS AND INSPECTIONS: If any laws or regulations of any public body having jurisdiction requires any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith and furnish ENGINEER the required certificates of inspection, testing or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with OWNER'S or ENGINEER's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval to CONTRACTOR'S purchase thereof for incorporation in the work.

~~13.4.1 — All construction testing and certifications required under the Specifications shall be performed by Certified Technicians from an Independent Testing Laboratory.~~

~~13.4.2 — The Testing Laboratory shall submit to the ENGINEER three copies and to the CONTRACTOR one copy, of all applicable test data, certifications and reports as required. All required test data and material certifications for each respective item of work must be submitted to the ENGINEER prior to application for payment. Any applications not accompanied by required test data and/or certifications shall be recommended for payment at an amount not to exceed 50% of contract until cost of required test data and certifications are submitted and subsequently approved.~~

~~13.4.3 — Upon completion of the project and prior to substantial completion, the testing laboratory shall certify that all testing and certification requirements of the specification have been satisfactorily met.~~

~~13.4.4 — The CONTRACTOR is cautioned to provide termination provisions in its sub-agreement with the testing laboratory. In the event that the testing services prove not up to recognized standards, the ENGINEER reserves the right to withdraw his approval and require another laboratory be furnished by the CONTRACTOR at no increase in Contract Price.~~

13.5 All inspections, tests or approvals other than those required by laws or regulations of any public body having jurisdiction shall be performed by organizations acceptable to OWNER

13.6 If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR'S expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR'S intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.7 Neither observations by ENGINEER nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR'S obligations to perform the Work in accordance with the Contract Documents.

13.8 UNCOVERING WORK: If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER'S observation and replaced at CONTRACTOR'S expense.

13.9 PAYMENT FOR UNCOVERING WORK: If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER'S request, shall uncover,

expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such work is defective, CONTRACTOR shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing, and of satisfactory reconstruction, (including but not limited to fees and charges of Engineers, Architects, Attorneys and other professionals), and OWNER shall be entitled to an appropriate decrease in the Contract Price, if the parties are unable to agree as to the amount thereof, may make a claim therefore as provided in Article 11. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price of an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Articles 11 and 12.

13.10 OWNER MAY STOP THE WORK: If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workmen or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party. In the event the OWNER stops the work pursuant to this paragraph 13.10, CONTRACTOR shall not be entitled to delay damages, including without limitation, demands for extended job site overhead, home office overhead, cumulative impacts, loss of productivity and efficiency, learning curve impacts, equipment down time and/or interest penalties, occasioned directly or indirectly by the stop work order.

13.11 CORRECTION OR REMOVAL OF DEFECTIVE WORK: If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals, and court costs) made necessary thereby. CONTRACTOR shall not be entitled to time extension of the Contract Time for correction or removal of defective work.

13.12 ONE YEAR CORRECTION PERIOD: If within the period from the date of Substantial Completion of a particular item of equipment or a designated part of the work to one year after the date of Initiation of Operation for the Project, the particular item of equipment or designated part of the work is found to be defective, CONTRACTOR shall promptly, without an adjustment in Contract Price and in accordance with ENGINEER'S written instructions, either correct such defective Work, or if it has been rejected by ENGINEER, remove it from the site and replace it with non-defective work. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement, (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by CONTRACTOR.

13.12.1 Subject to the conditions set forth in paragraphs 13.1.2 and 13.1.3 and the adjustments described in Subparagraphs 13.12.2, below, the Correction Period shall be one year.

13.12.2 Unless another date is indicated in the Contract Documents the date the Work is Substantially Complete shall be the date for Initiation of Operation to occur. However, OWNER may at its sole option advance or delay the date for Initiation of Operation, and CONTRACTOR'S obligations to extend warranties and guarantees in accordance with paragraph 13.1.2 and 13.1.3 or to maintain the Work in accordance with paragraph 13.1.2 until then shall remain absolute. Applicable Change Orders shall be executed by the parties to adjust the Contract Price, as appropriate.

13.12.3 CONTRACTOR'S responsibilities under the paragraph 13.12, including sub-paragraphs, are in addition to, not in lieu of, all other obligations imposed by these contract documents, or imposed by applicable State laws.

13.13 ACCEPTANCE OF DEFECTIVE WORK: If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER'S recommendations of final payment, also ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to OWNER'S evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to

reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to ENGINEER'S recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefore as provided in Article 11. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

13.14 OWNER MAY CORRECT DEFECTIVE WORK: If CONTRACTOR fails within a reasonable time after written notice of ENGINEER to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR'S services related thereto, take possession of CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER'S representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of OWNER in exercising such rights and remedies shall be charged against CONTRACTOR in an amount approved as to reasonableness by ENGINEER, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefore as provided in Article 11. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court and arbitration costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR'S defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER'S rights and remedies hereunder.

ARTICLE 14 - Payments to Contractor and Completion

14.1 SCHEDULE OF VALUES: The schedule of values established as provided in paragraph 2.9 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.2 APPLICATION FOR PROGRESS PAYMENT: At least seven days before each progress payment falls due (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents and also as ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by such data, satisfactory to OWNER, as will establish OWNER'S title to the material and equipment and protect OWNER'S interest therein, including applicable insurance. Only major items of material and equipment to be incorporated in the project will be eligible for payment. These items must be easily accountable by the ENGINEER. Payment for these materials will be invoice prices for the material, submitted with the request for payment, which price shall not exceed the appropriate portion of the contract items in which such materials are to be incorporated. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

14.2.1 Notwithstanding any other provisions of these contract documents to the contrary, OWNER is under no duty or obligation whatsoever to any Subcontractor, laborer or other party to ensure that payments due and owing by CONTRACTOR to any of them are or will be made. Such parties shall rely only on CONTRACTOR'S surety bonds for remedy of nonpayment by CONTRACTOR.

14.3 CONTRACTOR'S WARRANTY OF TITLE: CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

14.4 REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT: ENGINEER will, within ten days after receipt of each application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER'S reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and re-submit the Application. Forty-five (45) days after presentation of the Application for Payment with ENGINEER'S recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by OWNER to CONTRACTOR.

14.5 ENGINEER'S recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER'S on-site observations of the Work in progress as an experienced and qualified design professional and on ENGINEER'S review of the Application for Payment and the accompanying data and schedules that the Work has progressed to the point indicated; that, to the best of ENGINEER'S knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.10, and to any other qualifications stated in the recommendation); and that CONTRACTOR is entitled to payment of the amount recommended. However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or quantity of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents or that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or OWNER to withhold payment to CONTRACTOR.

14.6 ENGINEER'S recommendation of final payment will constitute an additional representation by ENGINEER to OWNER that the conditions precedent to CONTRACTOR'S being entitled to final payment as set forth in paragraph 14.13 have been fulfilled.

14.7 ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER'S opinion, it would be incorrect to make such representations to OWNER. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify and such payment previously recommended, to such extent as may be necessary in ENGINEER'S opinion to protect OWNER from loss because:

14.7.1 the Work is defective, or completed Work has been damaged requiring correction or replacement,

14.7.2 the Contract Price has been reduced by Change Order,

14.7.3 OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.14, or

14.7.4 of ENGINEER'S actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.9 inclusive.

14.7.5 OWNER may refuse to make payment of the full amount recommended by ENGINEER because claims have been made against OWNER, or OWNER has claims against CONTRACTOR including but not limited to liquidated damages for anticipated or actual late completion, on account of CONTRACTOR'S performance or furnishing of the Work, or Liens have been filed in connection with the Work or there are other items entitling OWNER to a set-off against the amount recommended, but OWNER must give CONTRACTOR prompt written notice (with a copy to ENGINEER) stating the reasons for such action.

14.8 SUBSTANTIAL COMPLETION: When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reason therefore. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion, which shall fix the date of substantial completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which he may make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within twenty-eight days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating his reasons. If after consideration of OWNER'S objections, ENGINEER considers the WORK substantially complete, ENGINEER will within said twenty-eight days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be complete or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion, ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER prior to ENGINEER'S issuing the definitive certificate of Substantial Completion ENGINEER'S aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment. Once determined the Work is identified as substantially complete a Certificate of Substantial Completion AIA G704 or other acceptable form will be issued.

14.9 EXCLUSION OF CONTRACTOR FROM SITE: OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

14.10 PARTIAL UTILIZATION: Use by OWNER of any finished part of the Work, which has specifically been identified

in the Contract Documents, or which OWNER, ENGINEER and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER without significant interference with CONTRACTOR'S performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1 OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER and ENGINEER that said part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefore. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraphs 14.8 and 14.9 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

14.10.2 OWNER may at any time request CONTRACTOR in writing to permit OWNER to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to ENGINEER and within a reasonable time thereafter OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to OWNER and ENGINEER that such part of the Work is not ready for separate operation by OWNER, ENGINEER will finalize the list of items to be completed or corrected and will deliver such list to OWNER and CONTRACTOR together with a written recommendation as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work which will become binding upon OWNER and CONTRACTOR at the time when OWNER takes over such operation (unless they shall have otherwise agreed in writing and so informed ENGINEER). During such operation and prior to Substantial Completion of such part of the Work OWNER, shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.

14.10.3 No occupancy or separate operation of part of the Work will be accomplished prior to compliance with the requirements of paragraph 5.7 in respect of property insurance.

14.11 LIEN PERIOD: Within twenty-one (21) days of the receipt of the definitive Certificate of Substantial Completion from ENGINEER, OWNER shall adopt and record a Resolution of Acceptance with the Recorder of Mortgages of the Parish in which the Agreement has been recorded. The recording of this Resolution of Acceptance shall commence a lien period of not less than forty-five (45) consecutive calendar days, during which period the retainage will be withheld by OWNER. After the said lien period, CONTRACTOR shall be responsible for obtaining from the Recorder of Mortgages a Certificate that the Agreement at the end of said forty-five day period, is clear of all liens, privileges, judgments or encumbrances of any nature whatsoever, which certificate he shall submit with his application for final payment to ENGINEER.

14.12 FINAL INSPECTION: Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of the particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

14.13 FINAL APPLICATION FOR PAYMENT: After CONTRACTOR has completed all such corrections to the satisfaction of the ENGINEER, and delivered four (4) sets of all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in paragraph 6.17) and other documents, all as required by the Contract Documents, and after ENGINEER has indicated that the Work is acceptable (subject to the provisions of paragraph 14.17), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all

documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER'S property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

14.13.1 Notwithstanding any provision of the Contract Documents to the contrary, OWNER shall not be deemed to have accepted the work or to have waived claims against CONTRACTOR as provided in Paragraph 14.16 until (i) Initiation of Operation and (ii) payment of all remaining amount of the Contract Price.

14.13.2 As a condition to payment of all remaining portions of the Contract Price of the Unit Price Agreement, CONTRACTOR shall perform all Startup Testing and shall notify ENGINEER that the work is ready for final inspection. Such Startup Testing and notice to ENGINEER may be accomplished only after CONTRACTOR delivers written notice of the expected date of Initiation of Operation.

14.13.3 The requirements and provisions of Paragraphs 14.11, 14.12, and 14.13 of the General Conditions shall apply to payment of the remaining Contract Price pursuant to the *Unit Price Agreement, as well to final payment under the Unit Price Agreement.*

14.14 FINAL PAYMENT AND ACCEPTANCE: If, on the basis of ENGINEER'S observation of the Work during construction and final inspection, and ENGINEER'S review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR'S other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the Final Application for Payment, indicate in writing ENGINEER'S recommendation of payment and present the Application to OWNER for payment. Thereupon ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.17. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and re-submit the Application. Thirty days after presentation to OWNER of the Application and accompanying documentation, in appropriate form and substance, and with ENGINEER'S recommendation and notice of acceptability, the amount recommended by ENGINEER will become due and will be paid by OWNER to CONTRACTOR.

14.15 If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR'S final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

14.16 CONTRACTOR'S CONTINUING OBLIGATION: CONTRACTOR'S obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER, nor the issuance of a certificate of Substantial Completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor any review and approval of Shop Drawing or sample submission, nor the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.14, nor any correction of defective Work by OWNER will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR'S obligation to perform the Work in accordance with the Contract Documents (except as provided in paragraph 14.17).

14.17 WAIVER OF CLAIMS: The making and acceptance of any final payment will constitute:

14.17.1 A waiver of all claims by OWNER against CONTRACTOR, except claims previously made in writing and still unsettled, or claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.12 or from failure to comply with the Contract Documents or the terms of any special guarantees specified herein; however, it will not constitute a waiver by OWNER of any rights in respect of CONTRACTOR'S continuing obligations under the Contract Documents; and

14.17.2 a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15 - Suspension of Work and Termination

15.1 OWNER MAY SUSPEND WORK: OWNER may, at any time and without cause, suspend the Work or any portion thereof by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work shall be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if CONTRACTOR makes an approved claim therefore as provided in Articles 11 and 12. If OWNER stops work under Paragraph 13.10 or suspends CONTRACTOR'S services under paragraph 13.14, or suspends the work or any portion thereof because of CONTRACTOR'S failure to prosecute the Work without endangering persons and property, CONTRACTOR shall be entitled to no extension of Contract Time or increase in Contract Price.

15.2 OWNER MAY TERMINATE: OWNER may terminate CONTRACTOR's services for cause upon the occurrence of any one or more of the following events:

15.2.1 If CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;

15.2.2 If a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency;

15.2.3 If CONTRACTOR makes a general assignment for the benefit of creditors;

15.2.4 If a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR'S creditors;

15.2.5 If CONTRACTOR admits in writing an inability to pay its debts generally as they become due;

15.2.6 If CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.9 as revised from time to time);

15.2.7 If CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

15.2.8 If CONTRACTOR disregards the authority of ENGINEER; or

15.2.9 If CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

In such case, CONTRACTOR shall not be entitled to receive any further payment beyond an amount equal to the value of the Work actually completed and the value of materials and equipment not incorporated in the Work but delivered and suitably stored, less the aggregate of payments previously made. If the direct and indirect costs of

completing the Work exceed the unpaid balance of the Contract Price, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER shall be incorporated in a Change Order, but in finishing the Work, OWNER shall not be required to obtain the lowest figure for the work performed. CONTRACTOR'S obligations to pay the difference between such costs and such unpaid balance shall survive termination of the Agreement.

15.3 Where CONTRACTOR'S services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.4 TERMINATION FOR CONVENIENCE: Upon seven days' written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement.

15.4.1 In any termination for convenience, CONTRACTOR shall be paid for (a) Work completed, in accordance with the Contract Documents, before receipt of the notice of termination, and (b) reasonable termination settlement costs for commitments that have become firm before the termination. CONTRACTOR shall not be paid any anticipated and unrealized supplemental costs, administrative expenses and profit for uncompleted Work. If no agreement can be reached as to reasonable termination costs, OWNER and CONTRACTOR shall follow the provisions in federal regulation FAR 52.249-2, found in 48 CFR Part 52.

15.4.2 Upon termination for convenience, OWNER shall have full power and authority to take possession of the Work, assume any sub-agreements with Subcontractors and Suppliers that OWNER selects, and prosecute the Work to completion by contract or as OWNER may deem expedient.

15.4.3 If after notice of termination of the services of CONTRACTOR for cause, it is determined that CONTRACTOR was not in default, the termination shall be deemed to have been for the convenience of OWNER. In such event, CONTRACTOR may recover from OWNER payment for Work completed and reasonable termination costs as provided in paragraph 15.4.1.

15.5 CONTRACTOR MAY STOP WORK OR TERMINATE: If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or ENGINEER fails to act on any Application for Payment within sixty days after it is submitted, or OWNER fails for sixty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and ENGINEER, terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Agreement, if ENGINEER has failed to act on an Application for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven days' written notice to OWNER and ENGINEER stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of his obligations under paragraph 6.29 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

ARTICLE 16 - Dispute Resolution

16.1 Subject to the conditions set forth in subparagraphs 16.2, 16.2.1 and 16.2.2 hereof, all claims, disputes and other matters and questions arising out of or relating to the Contract Documents or the breach thereof, except claims waived by the making and accepting of final payment as provided in Section 14.17, shall be decided by arbitration between the parties. This agreement to arbitrate shall be specifically enforceable under the Louisiana Arbitration Act and the award rendered by the arbitrators shall be final and a judgment may be entered thereon in the State District Court for the Parish of St. John the Baptist, State of Louisiana.

16.2 Any arbitration provided for hereunder will be conducted in accordance with the Construction Arbitration Rules of the American Arbitration Association (AAA), subject to the following:

16.2.1 OWNER shall not be compelled to arbitrate any dispute without its express consent given in writing after demand is made for arbitration.

16.2.2 Arbitration shall be conducted in St. John the Baptist Parish, Louisiana and the laws of the State of Louisiana shall be controlling as to matters of law.

16.3 Subject to any recognized privilege, discovery shall be available to each party to the arbitration as it would be available in the District Court for the Parish of St. John the Baptist under the provisions of the LA Code of Civil Procedure in effect at the time of demand for arbitration. Notices, time periods and other procedural matters shall be governed by the rules that apply in Louisiana District Courts which shall be enforced by the AAA in the same manner as in the Louisiana District Court.

16.4 A pre-hearing conference shall be held not sooner than sixty (60) days after the filing of the answer, at which time a pre-hearing summary shall be filed by each party, setting forth all claims and counterclaims with specificity, all witnesses expected to be called at the hearing, all documents proposed to be introduced, and all items of claimed damages including dollar amounts therefore.

16.5 All discovery and amendments to the pre-hearing summary shall be concluded thirty (30) days prior to the arbitration date. Failure on the part of the CONTRACTOR to provide the foregoing discovery and disclosure shall render any claim supported by witnesses or documents not so disclosed null, void and waived.

16.6 In the event of any arbitration demanded and agreed to by the OWNER, each party shall select an arbitrator and the two so selected shall select a third from a panel proposed by the AAA. In the event that the two cannot agree upon a neutral arbitrator from the AAA list within thirty (30) days, then the third arbitrator shall be designated by the AAA.

16.7 In the event OWNER so elects, CONTRACTOR shall be required to participate in a consolidated arbitration to include the ENGINEER.

16.8 The arbitrators shall render a written decision, with conclusions of law and findings of fact, breaking down the items of any award on the claim or counterclaim in sufficient detail to enable OWNER to seek any grant reimbursement as may be available.

16.9 Notwithstanding anything else in the Contract Documents to the contrary, the CONTRACTOR shall carry on the work and maintain its progress during litigation or any arbitration proceedings, and OWNER shall continue to perform and pay as otherwise required by the Contract Documents.

16.10 In the event OWNER elects not to arbitrate one or more disputes, the dispute or disputes which the OWNER elects not to arbitrate shall be decided under the laws of the State of Louisiana in the 40th Judicial District Court in and for the Parish of St. John the Baptist, State of Louisiana.

16.11 In the event OWNER is required to defend itself against any claim for delay, the OWNER shall be entitled to recover costs, including without limitation, administrative costs, attorneys' fees and court costs, from the party causing the delay.

ARTICLE 17 - Miscellaneous

17.1 GIVING NOTICE: Whenever any provisions of the Contract Documents requires the giving of written notice, it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.2 COMPUTATION OF TIME:

17.2.1 When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.2.2 A calendar day of twenty-four hours measured from midnight to the next midnight shall constitute a day.

17.3 UTILIZATION OF LOCAL LABOR (STATE RESIDENTS): Contractor shall make every effort to use local labor to the fullest extent possible.

17.4 GENERAL: Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 17.3 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

17.5 DUTIES AND OBLIGATIONS: The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 6.26, 13.1, 13.12, 13.14, 14.3 and 15.2 and all of the rights and remedies available to OWNER and ENGINEER thereunder, are in addition to, and shall not be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph shall be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, warranties and guarantees made in the Contract Documents will survive final payment and termination or completion of this Agreement. Also, the obligation of CONTRACTOR to maintain the Work until Initiation of Operation shall survive final payment and termination and completion of this Agreement.

Section 06

SPECIAL CONTRACT PROVISIONS

“NOT USED”

Section 07.1

REQUIRED CLAUSES FOR CONTRACT DOCUMENTS

I. EQUAL OPPORTUNITY CLAUSE: 40 CFR PART 8.

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this equal opportunity clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- (3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract, or understanding, a notice to be provided by the agency contracting officer, advising the labor union or worker's representative of the contractor's commitments under this equal opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the contractor's noncompliance with the equal opportunity clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part, and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

II. HISTORICAL PRESERVATION CLAUSE: 36 CFR PART 800.

The contractor agrees that, should evidence of historical or archeological sites be discovered during construction, all work in the area will cease immediately and the owner will be informed of the discovery. The owner will, in turn, promptly notify the Clean Water State Revolving Fund Program of the Louisiana Department of environmental Quality (DEQ).

After consulting with the appropriate State and Federal agencies the DEQ will advise the owner of any protective measures that may be required.

III. ENDANGERED SPECIES CLAUSE: ENDANGERED SPECIES ACT OF 1973, AS AMENDED

The contractor agrees that, should plants or animals belonging to either endangered or threatened species be discovered in the area of construction or adjacent areas, all work in that area will cease immediately, and the owner will be informed of the discovery. The owner will, in turn, promptly notify the Clean Water State Revolving Fund Program of the Louisiana Department of Environmental Quality (DEQ).

After consulting with the appropriate State and Federal agencies, the DEQ will advise the owner of any protective measures that may be required.

IV. PRESIDENTIAL EXECUTIVE ORDERS

The contractor is required to comply with the following Presidential Executive Orders:

- (1) 11625, 12138, and 12432 - Women's and Minority Business Enterprise;
- (2) 12549 - Debarment and Suspension
- (3) 11246 - Equal Employment Opportunity.

V. Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

Recipients and subrecipients of EPA funded assistance agreements must comply with regulations at 2 CFR 200.216, Prohibition on certain telecommunication and video surveillance services or equipment, implementing section 889 of Public Law 115-232. The regulation prohibits the use of Federal funds to procure (enter into, extend, or renew contracts) or obtain equipment, systems, or services that use "covered telecommunications equipment or services" identified in the regulation as a substantial or essential component of any system, or as critical technology as part of any system. Prohibitions extend to the use of Federal funds by recipients and subrecipients to enter into a contract with an entity that "uses any equipment, system, or service that uses covered telecommunications equipment or services" as a substantial or essential component of any system, or as critical technology as part of any system. Certain equipment, systems, or services, including equipment, systems, or services produced or provided by entities subject to the prohibition are recorded in the System for Award Management (<https://sam.gov/SAM/>) exclusion list.

As described in section 889 of Public Law 115-232, covered telecommunications equipment or services includes:

- Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
- For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- Telecommunications or video surveillance services provided by such entities or using such equipment.
- Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

VI. USE OF AMERICAN IRON AND STEEL

"In accordance with Section 608 of the Clean Water Act as amended by the Water Resources Reform and Development Act of 2014, the contractor agrees that all of the iron and steel products

used in the performance of the contract will be produced in the United States.”

For additional information including published waivers, please see the EPA website:

http://water.epa.gov/grants_funding/aisrequirement.cfm

VII. DAVIS BACON AND RELATED ACTS

Wage Rate Requirements Under The Clean Water Act, Section 513

Preamble

With respect to the Clean Water State Revolving Funds, EPA provides capitalization grants to each State which in turn provides sub grants or loans to eligible entities within the State. Typically, the sub recipients are municipal or other local governmental entities that manage the funds. For these types of recipients, the provisions set forth under Roman numeral I, below, shall apply. Although EPA and the State remain responsible for ensuring sub recipients' compliance with the wage rate requirements set forth herein, those sub recipients shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section I-5.

Occasionally, the sub recipient may be a private for profit or not for profit entity. For these types of recipients, the provisions set forth in Roman Numeral II, below, shall apply. Although EPA and the State remain responsible for ensuring sub recipients' compliance with the wage rate requirements set forth herein, those sub recipients shall have the primary responsibility to maintain payroll records as described in Section II-3(ii)(A), below and for compliance as described in Section II-5.

I. Requirements Under The Water Resources Reform and Development Act of 2014 (WRRDA) For Sub recipients 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 Water Resources Reform and Development Act of 2014 (WRRDA) - with respect to State recipients and sub recipients that are governmental entities. If a sub recipient 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 Mr. Dannel Brown at brown.danell@epa.gov or 214-665-7279, of EPA Region 6 Grants Management Office, - for guidance. The recipient or sub recipient 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 Water Resources Reform and Development Act of 2014 (WRRDA) -, 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. If a sub recipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the sub recipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Sub recipients 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 sub recipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The sub recipients 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 sub

recipients 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 sub recipient.

(ii) If the sub recipient 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 sub recipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The sub recipient 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 sub recipient 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 sub recipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Sub recipients 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 sub recipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the sub recipient 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 sub recipient 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 sub recipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the sub recipient(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 - 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 -FY 2015 Water Resource Reform and Development Act, 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.

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

(ii)(A) The sub recipient(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 sub recipient(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 sub recipient (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 sub recipient(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 sub recipient(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 sub recipient, 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 sub recipient 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/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 sub recipient(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 sub recipient(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 sub contractor'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 sub recipient(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 sub recipient 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 sub recipient, 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 Sub recipient 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 Sub recipient 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 sub recipient 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 sub recipient 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 sub recipient 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. Sub recipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB. Sub recipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence."

(c) The sub recipient 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 sub recipient 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 sub recipient 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. Sub recipients 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 sub recipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The sub recipient shall periodically review contractors and subcontractor's 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) Sub recipients 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/whd/america2.htm> .

II. Requirements Under The Water Resource Reform and Development Act of 2014 (WRDA) -) For Sub recipients That Are Not Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under –FY 2014 Water Resource Reform and Development Act with respect to sub recipients that are not governmental entities. If a sub recipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient for guidance. If a State recipient needs guidance, the recipient may contact Mr. Dannell Brown at brown.dannell@epa.gov or 214-665-7279, of EPA Grants Management Office for guidance. The recipient or sub recipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/whd/>

Under these terms and conditions, the sub recipient must submit its proposed DB wage determinations to the State recipient for approval prior to including the wage determination in any solicitation, contract task orders, work assignments, or similar instruments to existing contractors.

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

Under the FY 2015 Water Resouce Reform and Development Act -, 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 -. If a sub recipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the sub recipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Sub recipients must obtain proposed wage determinations for specific localities at www.wdol.gov. After the Sub recipient obtains its proposed wage determination, it must submit the wage determination to Mr. Dannell Brown at brown.dannell@epa.gov or 214-665-7279, of EPA Grants Management office - for approval prior to inserting the wage determination into a solicitation, contract or issuing task orders, work assignments or similar instruments to existing contractors (ordering instruments unless subsequently directed otherwise by the State recipient Award Official.)

(b) Sub recipients 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 sub recipient shall monitor www.wdol.gov on a weekly basis to ensure that the wage determination contained in the solicitation remains current. The sub recipients 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 sub recipients 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 sub recipient.

(ii) If the sub recipient 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 sub recipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The sub recipient 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.

(c) If the sub recipient 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 sub recipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(d) Sub recipients 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.

(e) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a sub recipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the sub recipient 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 sub recipient 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 sub recipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the sub recipient(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 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 2015 Water Resource Reform and Development Act -, 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.

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

(ii)(A) The sub recipient(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 sub recipient(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 sub recipient(s) to the State award official. The State award official will transmit the report, 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 sub recipient(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 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 sub recipient(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 sub recipient, 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 sub recipient 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/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 sub recipient(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 sub recipient(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 subcontractors 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 Sub recipient(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 sub recipient 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 (b)(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 (b)(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 (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The sub recipient shall upon the request of the EPA Award Official or an authorized representative of the Department of Labor, 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 (a)(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.

(c) 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 Sub recipient 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 Sub recipient 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 sub recipient 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 sub recipient 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 sub recipient 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. Sub recipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB. Sub recipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence."

(c). The sub recipient 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 sub recipient 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 sub recipient 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. Sub recipients 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 sub recipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d). The sub recipient 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) Sub recipients 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/whd/america2.htm>.

Note that "subrecipient" in the preceding regulations refers to the municipality.

Section 07.2

REQUIRED FEDERAL CERTIFICATION FORMS

The following forms shall be executed by the Successful Bidder prior to Awarding of the Contract:

RF-200 Prospective Prime Contractor's (Bidder) Statement About Six Good Faith Efforts

EPA 5700-49 Certification Regarding Debarment, Suspension, and Other Responsibility Matters

EPA 6100-2 DBE Subcontractor Participation Form

EPA 6100-3 DBE Subcontractor Performance Form

EPA 6100-4 DBE Subcontractor Utilization Form

RF-373 DBE Certification



EPA Project Control Number

United States Environmental Protection Agency
Washington, DC 20460

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

I am unable to certify to the above statements. My explanation is attached.

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.



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="checkbox"/> DOT <input type="checkbox"/> SBA <input type="checkbox"/> Other: _____		Meets/ exceeds EPA certification standards? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> 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.



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	___ YES	___ 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.

RF-373
04/23/13

DBE CERTIFICATION

Loan Recipient _____

Project Number _____ DEQ Contract No. _____

The Loan Recipient has determined that a fair share of subagreements CAN/CANNOT be awarded to disadvantaged, minority and/or women's businesses on this project.

Determination has been made that the Disadvantaged Business Enterprises participating in this project have been certified by the State of Louisiana's Unified Certification Program or by another certifying agency.

The following is the Loan Recipients effort to show compliance with DEQ's policy.

Prime Construction Contractor _____

Construction Contract Amount _____

WBE	MBE	Name of Firm	Subcontract Amount
()	()	_____	_____
()	()	_____	_____
()	()	_____	_____
()	()	_____	_____
()	()	_____	_____
()	()	_____	_____

*Attach additional sheets if necessary

Date

Authorized Representative of Recipient

Section 07.3

Davis Bacon Wage Decision

"General Decision Number: LA20240005 01/05/2024

Superseded General Decision Number: LA20230005

State: Louisiana

Construction Type: Heavy

Counties: Jefferson, Orleans, Plaquemines, St Bernard, St Charles, St James, St John the Baptist and St Tammany Counties in Louisiana.

HEAVY CONSTRUCTION PROJECTS (Includes flood control, water & sewer lines, and water wells. Also includes elevated storage tanks in all listed parishes except Plaquemines and St. James. Excludes industrial construction-chemical processing, power plants, and refineries.)

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

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: 	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: 	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination,

	if it is higher) for all hours spent performing on that contract in 2024.
--	---

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

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

Modification Number	Publication Date
0	01/05/2024

CARP0729-001 01/01/2023

	Rates	Fringes
MILLWRIGHT.....	\$ 36.00	13.30

 CARP1846-006 07/01/2022

	Rates	Fringes
CARPENTER (formbuilding/formsetting and Piledrivers).....	\$ 29.09	10.27

 ELEC0130-005 12/04/2023

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JAMES, AND ST. JOHN THE BAPTIST PARISHES

	Rates	Fringes
ELECTRICIAN (including low voltage wiring).....	\$ 34.00	15.20

 ELEC1077-002 05/29/2023

ST. TAMMANY PARISH

Rates	Fringes
-------	---------

ELECTRICIAN (including low voltage wiring).....\$ 27.89 3%+9.92

ENGI0406-018 07/01/2009

Rates Fringes

OPERATOR: Power Equipment

Bulldozer.....\$ 21.26 6.70

Mechanic.....\$ 23.31 6.70

PLAS0567-003 08/01/2022

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JOHN THE BAPTIST, and ST. TAMMANY PARISHES

Rates Fringes

Cement Mason/Concrete Finisher...\$ 30.47 7.97

PLAS0812-003 01/01/2022

ST. JAMES PARISH

Rates Fringes

Cement Mason/Concrete Finisher...\$ 31.83 5.90

PLUM0060-002 06/05/2023

JEFFERSON, ORLEANS, PLAQUEMINES, ST. BERNARD, ST. CHARLES, ST. JAMES (Southeastern Portion), ST. JOHN THE BAPTIST, and ST. TAMMANY PARISHES

Rates Fringes

Plumbers (excluding pipe laying).....\$ 31.70 13.85

PLUM0198-005 12/08/2022

ST. JAMES PARISH (Northwestern Portion)

Rates Fringes

PLUMBER (excluding pipe laying).....\$ 32.42 16.50

SULA2004-007 05/13/2004

	Rates	Fringes
CARPENTER (all other work).....	\$ 13.75 **	2.60
Laborers:		
Common/Landscape.....	\$ 9.88 **	0.00
Fence.....	\$ 11.24 **	0.00
Flagger.....	\$ 8.58 **	0.00
Mason Tender.....	\$ 7.25 **	0.00
Pipelayer.....	\$ 9.84 **	0.00
PIPEFITTER (excluding pipelaying).....	\$ 17.52	4.51
Power equipment operators:		
Backhoe/Excavator.....	\$ 14.42 **	0.00
Crane.....	\$ 16.34 **	3.30
Dragline.....	\$ 16.50 **	0.00
Front End Loader.....	\$ 13.89 **	0.00
Oiler.....	\$ 10.03 **	0.00
Truck drivers:		
Dump.....	\$ 11.01 **	0.00
Pickup.....	\$ 12.25 **	0.00

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

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

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year.

Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter

* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"

TECHNICAL SPECIFICATIONS

SECTION 01010

SUMMARY OF WORK

PART 1 – GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS/REQUIREMENTS INCLUDED

- A. Scope of Work: The Work of this Contract is to furnish and deliver a complete sludge dewatering system consisting of one (1) Mobile Belt Filter Press complete with ancillary equipment and operation/maintenance manuals to the St. John the Baptist Parish River Road Wastewater Treatment Plant facility located at 144 Water Plant Road; LaPlace, Louisiana 70068, in addition to all other services necessary for the initial installation, training, start-up and performance testing as detailed in Section 01025 Measurement and Payment.
- B. The Contractor shall furnish all labor, materials, equipment, tools, services, and incidentals to complete all work required by these specifications and as shown in the drawings.
- C. The Contractor shall perform the work complete, in place and ready for continuous service, and shall include repairs, replacements, and restoration required as a result of damage caused during this construction.
- D. The Contractor shall furnish and install all materials, equipment, labor, and incidentals which is reasonably and properly inferable and necessary for the proper completion of the work, whether specifically indicated in the Contract Documents or not.
- E. The Contractor shall be responsible for coordination with the Parish to provide access to the site, including buildings, as needed to perform the required work; provide the electrical cable(s) required to establish the needed main power electrical service; provide a roll-off container, or other suitable vehicle or container, to hold the processed sludge during the initial belt press unit performance testing operations; supply the Polymer needed as a flocculant for use by the belt press polymer system for the sludge dewatering process; testing services for the grab samples during the performance testing operations; and other incidentals as needed to facilitate the other specified planned work.

1.02 CONTRACTS

The Contract consists of a Base Bid Price. The base bid shall include all labor, materials, equipment, and incidentals required to construct the project complete in place. No extras shall be granted for any additional work unless specifically defined as a unit price item.

1.03 CONSTRUCTION AREAS

- A. Contractor shall limit his use of the construction areas for work and storage to allow for:
 - 1) Work by other contractors.
 - 2) Owner use.
 - 3) Public use.
- B. Coordinate use of work site under the direction of Engineer.
- C. Assume full responsibility for the protection and safekeeping of products under this contract, stored on the site.
- D. Move any stored products, under Contractor's control, which interfere with operations of the Owner or separate contractor.
- E. Obtain and pay for the use of additional storage or work areas needed for operations.

1.04 OWNER OCCUPANCY

- A. Cooperate with Owner's representative in all construction operations to minimize conflict, and to facilitate Owner usage.
- B. Contractor shall at all times conduct his operations as to insure the least inconvenience to the general public.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 GENERAL

- A. Refer to Proposal Bid Form
- B. Payment shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, maintenance, and manufactured articles, and for all labor, operations, and incidentals appurtenant to complete the work being described, as necessary to complete the various items of the work all in accordance with the requirement of the Contract Documents, including all costs of compliance with the regulations of public agencies having jurisdiction. The Contractor is hereby on notice that no separate payment will be made for any item not specifically called out, but that is required to properly complete the project.
- C. All estimated quantities stipulated in the Bid Form or other Contract Documents are approximate and are to be used only as a basis for estimating the probable cost of the work, and for the purpose of comparing the bids submitted for the work. The basis of payment for work and materials will be the actual amount of work done and materials furnished. No compensation will be given for any quantities not used.
- D. This is a unit price contract and the quantities shown on the "Bid Form" are for comparison of bids only. The actual quantities installed will be on an as needed basis and may vary significantly from estimated quantities.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

PART 4 MEASUREMENT AND PAYMENT

4.01 GENERAL

The total Bid Price shall cover all work required by the Contract Documents. All costs in connection with the proper and successful completion of the work, including furnishing all equipment, supplies, maintenance, and appurtenances; providing all construction equipment, and tools; performing all necessary labor and supervision to fully complete the work, shall be included in the bid price. All work not specifically set forth as a pay item in the Bid Form shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the prices bid.

4.02 MEASUREMENT AND PAYMENT

- A. The per each bid price shall include all tools, equipment, supplies, and manufactured articles, and for all labors, operations, and incidentals appurtenant to complete the work as shown in the drawings and detailed in the contract documents. Prior to beginning construction, the Contractor shall provide a detailed itemized cost Schedule of Values (SOV) to be used for processing monthly payment applications.

4.03 MOBILE BELT FILTER PRESS (ITEM NO. 1)

- A. Measurement: Measurement for payment for furnishing one (1) Mobile Belt Filter Press shall be per lump sum.
- B. Payment: Payment for furnishing one (1) Mobile Belt Filter Press shall be paid at the lump sum price bid complete with all required ancillary equipment, other components, and operation/maintenance manuals. All equipment costs, manufacturer included start-up assistance, training, and performance testing, in addition to all applicable taxes, shipping, delivery, and handling charges shall be included in the lump sum price bid.

4.04 EQUIPMENT SET-UP AND INSTALLATION (ITEM NO. 2)

- A. Measurement: Measurement for Equipment Set-up and Installation shall be on a lump sum basis for the set-up and installation of all equipment and required utility connections at the designated location at the project site to complete the scope of work. The set-up and installation location for the equipment to be furnished is the River Road Wastewater Treatment facility located at 144 Water Plant Road, LaPlace, LA 70068.
- B. Payment: Payment for Equipment Set-up and Installation shall be paid at the lump sum price bid and shall constitute full compensation for all necessary labor, tools, hardware, materials, supplies, operations, and other incidentals required by the Contract Documents not provided by the Owner or the belt press unit manufacturer as part of the Mobile Belt Filter Press or other pay items. All Contractor required work and expenses associated with the comprehensive set-up and installation of the complete belt press unit, including mobilization, site preparation, main electrical power connection to the unit, belt press & polymer system water supply connection(s), sludge feed supply connection, skid pump filtrate water discharge installation, and other incidentals shall be included in the lump sum price bid. Refer to the Summary of Work, Mobile Belt Filter Press, and other specification sections for materials and services to be provided by the Owner.

4.05 EQUIPMENT START-UP AND PERFORMANCE TESTING (ITEM NO. 3)

- A. Measurement: Measurement for Equipment Start-up and Performance Testing shall be on a lump sum basis.

- B. Payment: Payment for Equipment Start-up and Performance Testing shall be paid at the lump sum price bid and shall constitute full compensation for all necessary labor, incidentals, and other services required during the equipment start-up, training, and performance testing operations on site with the Manufacturer's field service technician(s) and Owner. The performance testing of the belt press shall entail successfully dewatering and processing sludge to the minimum required percent solids for a minimum of four (4) continuous hours and no less than twenty (20) tons. All necessary labor, tools, hardware, materials, and other supplies associated with the start-up and installation of the comprehensive belt press unit, other ancillary equipment, and the associated utility connections shall be included in the price bid for the Equipment Start-up and Performance Testing pay item.

END OF SECTION

SECTION 01041

PROJECT COORDINATION

PART 1 – GENERAL

1.01 SCOPE

This section covers the work required by the Contractor to coordinate and administer the project.

1.02 PROJECT COORDINATION

- A. Contractor shall plan, schedule, and coordinate with the Owner and Engineer all work to be performed on utilities in a manner conducive to timely and efficient progress in the execution of the contract.
- B. The Contractor shall plan, schedule, and coordinate a pre-demolition conference on-site with the Owner and Engineer for any building demolition and/or other major site demolition work.

1.03 NOTICES TO OWNERS AND AUTHORITIES

- A. Contractor shall, as provided in General Conditions, notify owners of adjacent property and utilities when prosecution of the Work may affect them.
- B. When it is necessary to temporarily deny access by owners or tenants to their property, or when any utility service connection must be interrupted, Contractor shall give notices sufficiently in advance to enable the affected persons to provide for their needs. Notices will conform to any applicable local ordinance and, whether delivered orally or in writing, will include appropriate information concerning the interruption and instructions on how to limit their inconvenience.
- C. All utilities and other concerned agencies shall be contacted at least 24 hours in advance, unless otherwise specified, prior to cutting or closing streets or other traffic areas, excavating near underground utilities or pole lines or temporary shutdown of existing facilities.
 - 1. Notice to Entergy. The Contractor shall review, prior to bidding, with Entergy the construction methods to be used in the vicinity of power lines. This review shall establish which lines, if any, need temporary relocation or de-energizing and the cost to accomplish this work. At least two weeks notice is required from the Contractor by Entergy prior to any temporary relocating or de-energizing work being required.
 - 2. Notice to Gas Companies. The Contractor shall review with the Gas Company any work to be done in the vicinity of gas lines. Where temporary

exposure or complete relocation of gas lines is required, the Contractor shall meet with the Gas Company as soon as possible, but no less than thirty (30) days in advance of when work is required.

3. Notice to Parish Utilities. The Contractor shall review with the Utilities Department any work in the vicinity of existing water utilities and with the Department of Public Works concerning work in the vicinity of existing drain lines. Contractor shall also coordinate and notify work in the vicinity of telephone and cable lines with AT&T and Cox Cable Company.
4. Notice to Telecommunication Companies and Companies with Equipment Located at the Wastewater Treatment Plants, Water Treatment Plants, and Water Well Facilities. The Contractor shall coordinate with Telecommunication companies and companies with equipment located at the wastewater and/or water facilities. Contractor shall be responsible for coordinating the handling, movement, and storage of equipment, if necessary, with the companies while work is in progress at the sites. Contractor is responsible for any damages to existing equipment if companies are not coordinated with prior to the commencement of work.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01152

REQUESTS FOR PAYMENT

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

Submit applications for payment to the Engineer in accordance with the schedule established by Conditions of the Contract.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Agreement between owner and Contractor: Total Bid Price.
- B. Conditions of the Contract: Progress Payments, Retainages and Final Payment.
- C. Section 01380: Construction Photographs.
- D. Section 01700: Contract Closeout.

1.03 FORMAT AND DATA REQUIRED

- A. Submit payment requests in the form required by Owner with itemized data typed on 8 ½ x 11 white paper continuation sheets.
- B. Provide itemized data on continuation sheet: format, schedules, line items and values.

1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. All payment requests must be accompanied by a short progress narrative describing work performed since previous payment submittal, progress photos as per Section 01380, current project schedule, and invoices for any stored materials billed.
- B. The contractor shall submit an updated construction schedule and certified payrolls if required with the monthly request for payment.
- C. When the Owner or the Engineer requires additional substantiating data, the Contractor shall submit suitable information, with a cover letter.
- D. Submit one copy of all data required with a cover letter for each monthly pay request. Any additional substantiating data requested shall also be submitted as required above.

- E. Quantities of “Stored Materials” must be approved by the Engineer prior to purchase of materials. Contractor shall submit invoices and delivery statements with pay requests.

1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in application form as specified for progress payments.
- B. Use continuation sheet for presenting the final statement of accounting as specified in section 01700 - Contract Closeout.

1.06 SUBMITTAL PROCEDURE

- A. Submit applications for payment to the Engineer at the times stipulated in the Agreement.
- B. Number: Two copies of each application.
- C. When the Engineer finds application properly completed and correct, he will transmit certificate for payment to the Owner.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01153

CHANGE ORDER PROCEDURES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Promptly implement change order procedures.
 - 1. Provide full written data required to evaluate changes.
 - 2. Maintain detailed records of work done on a time-and-material/force account basis.
 - 3. Provide full documentation to the Engineer on request.
- B. Designate in writing the member of Contractor's organization.
 - 1. Who is authorized to accept changes in the Work.
 - 2. Who is responsible for informing others in the contractors employ of the authorization of changes in the Work.
- C. Owner will designate in writing the person who is authorized to execute Change Orders.

1.02 DEFINITIONS

- A. Change order: See General Conditions.

1.03 PRELIMINARY PROCEDURES

- A. Owner or Engineer may initiate changes by submitting a Proposal Request to Contractor. Request will include:
 - 1. Detailed description of the Change, Products, and location of the change in the Project.
 - 2. Supplementary or revised Drawings and Specifications.
 - 3. The projected time span for making the change, and a specific statement as to whether overtime work is, or is not, authorized.
 - 4. A specific period of time during which the requested price will be considered valid.
 - 5. Such request is for information only, and is not an instruction to execute the changes, nor to stop work in progress.
- B. Contractor may initiate changes by submitting a written notice to Engineer, containing:

1. Description of the proposed changes.
2. Statement of the reason for making the changes.
3. Statement of the effect on the Contract Sum and the Contract Time.
4. Statement of the effect on the work of separate contractors.
5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

1.04 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow Engineer to evaluate the quotation.
- B. On request, provide additional data to support time and cost computations:
 1. Labor required.
 2. Equipment required.
 3. Products required.
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required.
 4. Taxes, insurance, and bonds.
 5. Credit for work deleted from Contract, similarly documented.
 6. Overhead and profit.
 7. Justification for any change in Contract Time.
- C. Support each claim for additional costs, and for work done on a time-and-material/force account basis, with documentation as required for a lump-sum proposal, plus additional information.
 1. Name of the Owner's authorized agent who ordered the work, and date of the order.
 2. Dates and times work was performed, and by whom.
 3. Time record, summary of hours worked, and hourly rates paid.
 4. Receipts and invoices for:
 - a. Equipment used, listing dates and times of use.
 - b. Products used, listing of quantities.
 - c. Subcontracts.

1.05 PREPARATION OF CHANGE ORDERS

- A. Engineer will prepare each Change Order.
- B. Form: Owner's Form, to be provided to the Contractor.
- C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.

- D. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

1.06 LUMP SUM/FIXED PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
 - 1. Engineer's Proposal Request and contractor's responsive Proposal as mutually agreed between Owner and Contractor.
 - 2. Contractor's Proposal for a change, as recommended by Engineer.
- B. Owner and Engineer will sign and date the Change Order as authorization for the Contractor to proceed with the changes.
- C. Contractor may sign and date the Change Order to indicate agreement with the terms therein.

1.07 UNIT PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
 - 1. Engineer's definition of the scope of the required changes.
 - 2. Contractor's Proposal for a change, as recommended by Engineer.
 - 3. Survey of completed work.
- B. The amounts of the unit prices to be:
 - 1. Those stated in the Agreement.
 - 2. Those mutually agreed upon between Owner and Contractor.
- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
 - 1. Owner and Engineer will sign and date the Change Order as authorization for Contractor to proceed with the changes.
 - 2. Contractor may sign and date the Change Order to indicate agreement with the terms therein.
- D. When quantities of the items cannot be determined prior to start of the work:
 - 1. Engineer or Owner will issue a construction change authorization directing Contractor to proceed with the change on the basis of unit prices and will cite the applicable unit prices.
 - 2. At completion of the change, Engineer will determine the cost of such work based on the unit prices and quantities used.
 - a. Contractor shall submit documentation to establish the number of

- units of each item and any claims for a change in Contract Time.
3. Engineer will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
 4. Owner and contractor will sign and date the change Order to indicate their agreement with the terms therein.

1.08 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values and Application for Payment forms to record each change as a separate item of work, and to record the adjusted Contract Sum.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time.
 1. Revise subschedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

A. Engineer shall schedule and administer pre-construction meeting, periodic progress meetings, and specially called meetings throughout progress of the work. At a minimum, Engineer shall perform the following duties:

- 1) Prepare agenda for meetings.
- 2) Make physical arrangements for meetings.
- 3) Preside at meetings.
- 4) Record the minutes; include significant proceedings and decisions.
- 5) Reproduce and distribute copies of minutes within three days after each meeting.
 - (a) To participants in the meeting
 - (b) To parties affected by decisions made at the meeting

B. Representative of contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.

C. The Contractor shall attend and identify at the meetings the actual status of the Contract Work. When the Work is not being performed consistently with the Contract Documents and construction schedules, the Contractor shall identify at the meetings the steps being taken to resolve the inconsistency.

1.02 RELATED REQUIREMENTS

- A. Instructions to Bidders: Pre-bid Conferences.
- B. Section 01340: Shop Drawings, Product Data and Samples.

1.03 PRE-CONSTRUCTION MEETING

- A. The Contractor shall participate in a preconstruction meeting to be held after the effective date of the Agreement and prior to the date of Notice to Proceed.
- B. Location: A central site, convenient for all parties, designated by the Engineer.

C. Attendance:

- 1) Owner's Representative and other staff as appropriate.
- 2) Engineer and his professional consultants as appropriate.
- 3) Resident Project Representative.
- 4) Contractor's Representative and Construction Superintendent.
- 5) Subcontractors as appropriate.
- 6) Major suppliers as appropriate.
- 7) Others as appropriate.

D. The following matters are expected to be addressed:

- 1) Distribution and discussion of:
 - (a) List of major subcontractors and suppliers.
 - (b) Projected Construction Schedules.
 - (c) Values for progress payment purposes.
- 2) Critical work sequencing.
- 3) Major equipment deliveries and priorities.
- 4) Project Coordination:
 - (a) Designation of responsible personnel.
- 5) Procedures and processing of:
 - (a) Field decisions.
 - (b) Proposal requests.
 - (c) Submittals.
 - (d) Change Orders.
 - (e) Applications for Payment.
- 6) Adequacy of distribution of Contract Documents.
- 7) Procedures for maintaining Record Documents.
- 8) Use of premises:

- (a) Work and storage areas.
 - (b) Owner's requirements.
- 9) Construction facilities, controls, and construction aids.
 - 10) Temporary utilities.
 - 11) Security procedures.
 - 12) Housekeeping procedures.
 - 13) Insurance certificates.
 - 14) Liquidated damages for delay.
 - 15) Notice to Proceed and Final Completion Date.

1.04 CONSTRUCTION PROGRESS MEETINGS

- A. Construction progress meetings will be held monthly with the first meeting 30 days or less after the date of Notice to Proceed.
- B. Special construction progress meetings will be held as required by progress of the Work.
- C. Location of the meetings: As designated by the Engineer.
- D. Attendance:
 - 1) Owner Representative and other staff as appropriate.
 - 2) Engineer, and his professional consultants, as appropriate.
 - 2) Contractor.
 - 3) Subcontractors, as appropriate.
 - 4) Suppliers, as appropriate.
 - 5) Others.
- E. The following matters are expected to be addressed:
 - 1) Review, approval of minutes of previous meeting.
 - 2) Review of work progress.
 - 3) Field observations, problems, conflicts.
 - 4) Problems which impede Construction Schedule.

- 5) Review of off-site fabrication, delivery schedules.
- 6) Corrective measures and procedures to regain projected schedule.
- 7) Revisions to Construction Schedule.
- 8) Progress, schedule, during succeeding work period.
- 9) Coordination of schedules.
- 10) Review submittal schedules; expedite as required.
- 11) Maintenance of quality standards.
- 12) Pending changes and substitutions.
- 13) Review proposed changes for:
 - (a) Effect on Construction Schedule and on completion date.
 - (b) Effect on other contracts of the project.
- 14) Other business.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01310

CONSTRUCTION SCHEDULE

PART 1 – GENERAL

1.01 PROGRAM DESCRIPTION

- A. A Critical Path Method (CPM) construction schedule shall be used to control the work of this Contract and to provide a definitive basis for determining job progress. The construction schedule shall be prepared, maintained, and updated by the Contractor. The construction schedule shall be reviewed by the Engineer as described herein. All work shall be done in accordance with the established CPM schedule and the Contractor and his/her subcontractors shall be responsible for cooperating fully with the Engineer and the Owner in effectively utilizing the CPM schedule.
- B. The CPM schedule to be prepared and submitted by the Contractor shall consist of a CPM network (diagram of activities) in the Time Scale Logic and a computer-generated schedule (print-out) as specified herein.
- C. Within ten calendar days following written Notice to Proceed, the Contractor shall submit to the Engineer for review and approval a Preliminary Guideline CPM Schedule covering the first 60 calendar days of Work to be performed.
- D. The Preliminary Guideline CPM Schedule shall:
 - 1. Illustrate a feasible CPM schedule for completion of the work under this Contract within the time specified.
 - 2. Provide an elementary example of a CPM schedule in the format to be used for the detailed CPM schedule specified. The Preliminary Guideline CPM Schedule is not as detailed as the CPM schedule required under this Contract.
 - 3. Establish mandatory milestone dates. Designate milestones on the Preliminary Guideline CPM Schedule with asterisks.
- E. The Preliminary Guideline CPM Schedule is not to be considered binding except for the time required for contract completion and the mandatory milestones.
- F. Contractor shall develop his own outline of the Work and prepare his proposed CPM schedule. The computer-based schedule shall be the product of a recognized commercial computer software producer and shall meet all of the requirements defined herein.

1.02 QUALIFICATIONS

- A. Have the capability of preparing and utilizing the specified CPM scheduling technique. A statement of CPM capability shall be submitted in writing to the Engineer within ten calendar days after the award of the Contract and will verify that either the Contractor's organization has in-house capability qualified to use the technique or that the Contractor employs a consultant who is so qualified. Capability shall be verified by description of the construction projects to which the Contractor or his/her consultant has successfully applied the CPM scheduling technique and which were controlled throughout the duration of the project by means of systematic use and updating of a computer-based CPM schedule. The submittal shall include the name of the individual on the Contractor's staff who will be responsible for the CPM schedule and for providing the required updating information.

1.03 NETWORK REQUIREMENTS

- A. The network shall show the order and inter-dependence of activities and the sequence in which the work is to be accomplished as planned by the Contractor. The basic concept of a network analysis diagram shall be followed to show how the start of a given activity is dependent on the completion of preceding activities and its completion restricts the start of following activities.
- B. Detailed network activities shall include: construction activities, the submittal and approval of samples of materials and shop drawings, the procurement of materials and equipment, fabrication of materials and equipment and their delivery, installation and testing, start-up and training. Break the work into activities with duration no longer than 20 working days each, except as to non-construction activities (such as procurement of materials and delivery of equipment) and any other activities for which the Engineer may approve the showing of longer duration. To the extent feasible, activities related to a specific physical area of the work shall be grouped on the network for ease of understanding and simplification.
- C. Separate activities shall be provided for each significant identifiable function in each trade area in each facility. Activities shall be so identified that there will be no reasonable doubt as to how much work remains on each. Specific activities which shall be included are: all sub contract work, all interface work between subcontractors and between the Contractor and subcontractors leakage tests of tanks and pipelines, electrical connections to each item of equipment, supplier and manufacturer technical assistance, mechanical connections to each item of equipment all tests concrete finishing, each item of site work, (including restraints on other activities) and all utilities, fuels and chemicals.
- D. Each activity on the network shall have the following indicated on the node representing it.

1. A single duration (i.e., the single best estimate of elapsed time considering the scope of the work involved in the activity and the resources planned for accomplishing the activity) expressed in working days.
 2. A five-character (or less) code indicative of the party responsible for accomplishing the activity.
 3. A cost estimate for each activity which, when accumulated with the cost of all activities, equals the total contract cost. Estimated overhead and profit shall be prorated throughout all activities. Materials costs shall be assigned to delivery activities.
 4. A brief description of the activity.
 5. Manpower estimate for each activity.
- E. The selection and number of activities shall be subject to the Engineer's approval. The detailed network shall be time scaled. In addition to the brief description, submit a separate list of all activities containing a detailed narrative of the scope of each activity, including the trades and subcontractors involved, the activity duration, and the cost of each activity as it pertains to the pay items on the Schedule of Values.
- F. To the extent that the network or any revision thereof shows anything not jointly agreed upon or fails to show anything jointly agreed upon, it shall not be deemed to have been approved by the Engineer. Failure to include on a network any element of work required for the performance of this Contract shall not excuse the Contractor from completing all work required within any applicable completion date, notwithstanding the review of the network by the Engineer.
- G. Except where earlier completions are specified, CPM schedules which show completion of all work prior to the contractor completion date may be approved by the Engineer but in no event shall they be acceptable as a basis for claim for delay against the Owner or Engineer by the Contractor.

1.04 COMPUTER-GENERATED SCHEDULE REQUIREMENTS

- A. Each computer-generated schedule submittal from the CPM activity network shall include the following tabulations: a list of activities in numerical order, a list of activity precedence's, a schedule sequenced by Early Start Date and a schedule sequenced by Total Float. Each schedule shall include the following minimum items:
1. Activity numbers

2. Estimated duration
3. Activity description
4. Early start date (calendar dated)
5. Early finish date (calendar dated)
6. Latest allowable start date (calendar dated)
7. Latest allowable finish date (calendar dated)
8. Status (whether critical)
9. Estimated cost of the activity
10. Total float and free float

B. In addition, each schedule shall be prefaced with the following summary data:

1. Contract name and number
2. Contractor's name
3. Contract duration
4. Contract schedule
5. The effective or starting date of the schedule (the date indicated in the Notice to Proceed).

C. The work day to calendar date correlation shall be based on an 8-hour day and 40-hour week with adequate allowance for holidays, adverse weather and all other special requirements of the work.

1.05 INITIAL CONFERENCE

A. Within ten days following the receipt of the Notice to Proceed, meet with the Engineer to discuss and agree on the proposed standards for the CPM schedule. At this conference submit to the Engineer a preliminary network defining the planned operations during the first 60 calendar days after Notice to Proceed. The general approach for the balance of the project shall be indicated. Cost of activities expected to be completed or partially completed before submission and approval of the complete network shall be included.

1.06 APPROVED CPM SCHEDULE

- A. Within 45 days following the receipt of the Notice to Proceed, submit two prints of the proposed CPM activity network and a computer-generated schedule to the Engineer. Following review by the Engineer and Owner, the Contractor shall incorporate the Engineer's comments into the network and submit five prints and two reproducible of the revised network and two copies of the computer-generated schedule. This final submittal shall be delivered to the Engineer within 60 days after the Notice to Proceed.
- B. CPM schedules which contain activities showing negative float or which extend beyond the contract completion date in the computer-generated schedule will not be approved.
- C. The Contractor shall participate in the initial review and evaluation of the proposed network diagram and schedule by the Engineer. The approved network shall then be approved CPM schedule to be used for planning, organizing and directing the work, and reporting progress.
- D. Approval of the CPM activity network by the Engineer is advisory only and shall not relieve the Contractor of responsibility for accomplishing the work within the contract completion date. Omissions and errors in the approved CPM schedule shall not excuse performance less than that required by the Contract Approval by the Engineer in no way makes the Engineer an insurer of the CPM schedule's success or liable for time or cost overruns flowing from its shortcomings. The Owner hereby disclaims any obligation or liability by reason of approval by its agent, the Engineer, of the CPM schedule.
- E. The CPM activity network shall be prepared in accordance with the format used in the Preliminary Guideline CPM Schedule noted above. The network shall be submitted on sheets 24-in by 36-in and may be divided into as many separate sheets as required.

1.07 PROGRESS REPORTING

- A. Progress under the approved CPM schedule shall be evaluated monthly by the Contractor and the Engineer. Not less than seven days prior to each monthly progress meeting, they shall meet at the job-site and jointly evaluate the status of each activity on which work has started or is due to start, based on the preceding CPM schedule; to show actual progress, to identify those activities started and those completed during the previous period, to show the estimated time required to complete or the percent complete of each activity started but not yet completed and to reflect any changes indicated for the network. Activities shall not be considered to be complete until they are, in fact, 100 percent complete.

- B. At each progress meeting, submit a narrative report based on the CPM schedule evaluation described above, in a format agreed upon by the Contractor and the Engineer. The report shall include a description of the progress during the previous period in terms of completed activities, and explanation of each activity which is showing a delay, a description of problem areas, current and anticipated delaying factors and their estimated impact on performance of other activities and completion dates and an explanation of corrective action taken or proposed. This report, as well as the CPM Status Report, will be discussed at each progress meeting.

1.08 RESPONSIBILITY FOR SCHEDULE COMPLIANCE

- A. Whenever it becomes apparent from the current CPM schedule and CPM Status Report that delays to the critical path have resulted and the contract completion date will not be met, or when so directed by the Engineer, Contractor shall take some or all of the following actions at no additional cost to the Owner. He shall submit to the Engineer for approval, a written statement of the steps intended to take to remove or arrest the delay to the critical path in the approved schedule.
 1. Increase construction manpower in such quantities and crafts as will substantially eliminate the backlog of work.
 2. Increase the number of working hours per shift, shifts per day, working days per week, the amount of construction equipment, or any combination of the foregoing, sufficiently to substantially eliminate the backlog of work.
 3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities and comply with the revised schedule.
- B. If when so requested by the Engineer, failure to submit a written statement of the steps intended to take or should fail to take such steps as approved by the Engineer, the Engineer may direct the Contractor to increase the level of effort in man-power (trades), equipment and work schedule (overtime, weekend and holiday work, etc) to be employed by the Contractor in order to remove or arrest the delay to the critical path in the approved schedule and the Contractor shall promptly provide such level of effort at no additional cost to the Owner.

1.09 ADJUSTMENT OF CONTRACT SCHEDULE AND COMPLETION TIME

- A. If the Contractor desires to make changes in his/her method of operating which affect the approved CPM schedule, he/she shall notify the Engineer in writing stating what changes are proposed and the reason for the change. If the Engineer approves these changes, the Contractor shall review and submit for approval, without additional cost to the Owner, all of the affected portions of the CPM

network. The CPM schedule shall be adjusted by the Contractor only after prior approval of his/her proposed changes by the Engineer. Adjustments may consist of changing portions of the activity sequence, activity durations, division of approved activities, or other adjustments as maybe approved by the Engineer. The addition of extraneous, non-working activities and activities which add unapproved restraints to the CPM schedule shall not be approved.

- B. If the completion of any activity, whether or not critical, falls more than 100 percent behind its approved duration, submit for approval a schedule adjustment showing each such activity divided into two activities reflection completed versus uncompleted work.
- C. Shop drawings which are not approved on the first submittal or within the schedule time and equipment which do not pass the specified tests shall be immediately rescheduled.
- D. The contract completion time will be adjusted only for causes specified in this Contract. In the event the Contractor requests an extension of any contract completion date, he/she shall furnish such justification and supporting evidence as the Engineer may deem necessary to determine whether the Contractor is entitled to an extension of time under the provisions of this Contract. The Engineer will after receipt of such justification and supporting evidence, make findings offset and will advise the Contractor in writing thereof. If the Engineer finds that the Contractor is entitled to any extension of any contract completion date, the Engineer's determination as to the total number of days extension shall be based upon the currently approved CPM schedule and on all data relevant to the extension. Such data shall be included in the next updating of the schedule. Actual delays in activities which, according to the CPM schedule, do not affect any contract completion date shown by the critical path in the network will not be the basis for a change therein.
- E. Each request for change in any contract completion date shall be submitted by the Contractor to the Engineer within 30 days after the beginning of the delay for which a time extension is requested but before the date of final payment under this Contract. No time extension will be granted for requests which are not submitted within the foregoing time limit.
 - 1. From time to time it may be necessary for the contract schedule or completion time to be adjusted by the Owner to reflect the effects of job conditions, weather, technical difficulties, strikes, unavoidable delays on the part of the Owner or its representatives and other unforeseeable conditions which may indicate schedule adjustments or completion time extensions. Under such conditions, the Engineer will direct the Contractor to reschedule the work or contract completion time to reflect the changed conditions and the Contractor shall revise his/her schedule accordingly. No additional compensation will be made to the Contractor for such

schedule changes except for unavoidable overall contract time extensions beyond the actual completion of all unaffected work, in which case the Contractor shall take all possible action to minimize any time extension and any additional cost to the Owner. Available float time in the CPM schedule may be used by the Owner as defined by the Engineer, as well as by the Contractor.

- F. The Owner controls the float time in the approved CPM network and, therefore, without obligation to extend either the overall completion date or any intermediate completion dates set out in the CPM network, the Owner may initiate changes to the work that absorb float time only. Owner initiated changes that affect the critical path on the approved CPM network shall be the sole grounds for extending (or contracting) said completion dates. Contractor-initiated changes that encroach on the float time identified in the approved CPM network may be accomplished with the Owner's concurrence. Such changes, however, shall give way to Owner-initiated changes competing for the same float time.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

Submit shop drawings, product data, and samples required by Contract Documents.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract: Definitions and Additional responsibilities of parties.
- B. Designate in a separate schedule, the dates for submission and the dates that reviewed shop drawings, product data, and samples will be needed.

1.03 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner.
 - 1) Details shall be identified by reference to sheet and detail as shown on contract drawings.
- B. Minimum sheet size: 8 ½ inches by 11 inches.

1.04 PRODUCT DATA

- A. Preparation
 - 1) Clearly mark each copy to identify pertinent products or models.
 - 2) Show performance characteristics and capacities.
 - 3) Show dimensions and clearances required.
 - 4) Show wiring or piping diagrams and controls.
- B. Manufacturer's standard schematic drawings and diagrams.
 - 1) Modify drawings and diagrams to delete information which is not applicable to the work.

- 2) Supplement standard information to provide information specifically applicable to the work.

1.05 SAMPLES

- A. Office samples shall be of sufficient size and quantity to clearly illustrate:
 - 1) Functional characteristics of the product, with integrally related parts and attachment devices.
 - 2) Full range of color, texture, and pattern.

1.06 CONTRACTOR RESPONSIBILITIES

- A. Review shop drawings, product data, and samples prior to submission.
- B. Determine and verify:
 - 1) Field measurements
 - 2) Field construction criteria
 - 3) Catalog numbers and similar data
 - 4) Conformance with specifications
 - 5) Confirm compatibility of equipment to be supplied within location to be erected.
- C. Coordinate each submittal with requirements of the work and of the contract documents.
- D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the contract documents.
- E. Begin no fabrication or work which requires submittals until return of submittals with Engineer approval.

1.07 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the work or in the work of any other contractor.
- B. Number of Submittals required:
 - 1) Shop Drawings and Product Data: Submit one (1) set of prints and (1) set of pdfs of each shop drawing submittal for review. After final review in which there are no exceptions noted or referenced the contractor shall

furnish the Engineer six (6) complete sets for use, unless otherwise determined, by the Engineer and Owner.

2) Samples: Submit the number stated in each specification section.

C. Submittals shall contain:

- 1) The date of submission and the dates of any previous submissions.
- 2) The project title and number.
- 3) Contract identification.
- 4) The names of:
 - (a) Contractor
 - (b) Supplier
 - (c) Manufacturer
- 5) Identification of the product, with the specification section number.
- 6) Field dimensions, clearly identified as such.
- 7) Relation to adjacent or critical features of the work or materials.
- 8) Applicable standards, such as ASTM or Federal specification numbers.
- 9) Identification of deviations from Contract Documents.
- 10) Identification of revisions on resubmittals.
- 11) A blank space for Contractor and Engineer stamps.
- 12) Contractor's stamp, initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the work and of Contract Documents.

1.08 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by the Engineer and resubmit until no exceptions are taken by the Engineer.
- B. Shop Drawings and Product Data:

- 1) Revise initial drawings or data, and resubmit as specified for the initial submittal.
- 2) Indicate any changes which have been made other than those requested by the Engineer.

C. Samples: Submit new samples as required for initial submittal.

1.09 DISTRIBUTION

A. Distribute reproductions of Shop Drawings and copies of Product Data which carry the Engineer review stamp to:

- 1) Job site file
- 2) Record Documents file
- 3) Other affected contractors
- 4) Subcontractors
- 5) Supplier or Fabricator

B. Distribute samples which carry the Engineer review stamp as directed by the Engineer.

1.10 ENGINEER DUTIES

A. Review submittals within 15 calendar days.

B. Affix review stamp and initials or signature, and indicate requirements, if any, for resubmittal.

C. Return submittals to Contractor.

1.11 ENGINEER'S ACTION

A. Final unrestricted release. Work may proceed, provided it complies with contract documents, when submittal is returned with the following:

- 1) Marking: No exceptions taken

B. Final-But-Restricted Release. Work may proceed, provided it complies with notations and corrections on submittal and with contract documents, when submittal is returned with the following:

- 1) Marking: Revised as Noted.

C. Returned for Resubmittal. Do not proceed with work. Revise submittal in accordance with notations thereon, and resubmit without delay to obtain a

different action marking. Do not allow submittals with the following marking (or unmarked submittals where a marking is required) to be used in connection with performance of the work:

- 1) Marking: Amend and Resubmit or Rejected - See Remarks

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01380

CONSTRUCTION PHOTOGRAPHS

PART 1 GENERAL

- A. Contractor shall be responsible for the production of pre-construction photographs to document site conditions prior to construction and for production of construction progress photographs for each repair as provided herein.

PART 2 PRODUCTS

- A. All photographs shall be digital and produced by a competent photographer. Digital photos shall be submitted in the "jpg format" with the description of view and date taken and address/location. Compact Disk, USB or digital copies shall be turned in with each payment of the work performed during that pay period.

PART 3 EXECUTION

- A. Minimum of four (4) digital photographs (two pre-construction, two-post construction) of pertinent features shall be taken at each location work is to be performed. The same view taken at preconstruction is to be re-photographed after restoration is completed, and submitted with Contractor's application for payment. Photographs must include address, latitude and longitude coordinates, date and description of work performed. Payment will not be approved for restoration work if photographs are not submitted with the pay request. The Contractor is reminded that the number of photographs is a "minimum", and dependent on site conditions, it may be prudent to take as many photographs as necessary to document pre-existing conditions. The Contractor is required to photograph the pre-existing conditions from the most advantageous angle possible. The intent of this section is to have detailed photographs from as many different angles as required to adequately document the pre-existing conditions.

PART 4 MEASUREMENT AND PAYMENT

- A. Payment for pre and post construction photographs is considered incidental to conducting repairs and will not be considered for separate payment, unless specifically included in the bid price for another contract bid item.

END OF SECTION

SECTION 01505

MOBILIZATION

PART 1 – GENERAL

Mobilization shall include obtaining all permits, insurance, and bonds; moving onto the site of all plant and equipment; furnishing and erecting any construction facilities; all as required for the proper performance and completion of the work. The Contractor shall provide all items of work covered in this section which shall include but not be limited to the following principal items:

1. Moving on the site of all Contractor's plant and equipment required for first month operations.
2. Installing temporary construction power, wiring, and lighting facilities.
3. Establishing fire protection system.
4. Developing construction water supply.
5. Providing on-site sanitary facilities and potable water facilities as specified.
6. Arranging for and erection of Contractor's work and storage yard.
7. Procurement and submittal of all required subcontractor insurance certificates and bonds.
8. Obtaining all required permits.
9. Posting all OSHA required notices and other information as required by Federal, State and Local Agencies. Establishment of safety programs.
10. Have the contractor's superintendent at the job site full time.
11. Have provided a detailed construction schedule acceptable to the Owner for project use as specified.
12. Erection of project sign(s) as necessary.
13. Excavation Plan.
14. Provide construction photographs and pre-construction videos, if necessary.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01510

TEMPORARY UTILITIES

PART 1 – GENERAL

1.01 SCOPE OF WORK

It shall be the Contractor's responsibility to provide plant and equipment that is adequate for the performance of the work under this contract within the time specified. All plant and equipment shall be kept in satisfactory operating condition, shall be capable of safely and efficiently performing the required work, and shall be subject to inspection and approval by the Owner's representative at any time within the duration of the Contract. All work hereunder shall conform to the applicable requirements of the OSHA Standards for Construction. In addition, all work shall conform with requirements of the latest National Electric Code, Building codes, and any other applicable federal, state, and local codes and ordinances.

1.02 RELATED REQUIREMENTS

Section 01010: Summary of Work

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 POWER AND LIGHTING

- A. Power. The Contractor shall provide, at his own expense, all necessary power required for the operations under the Contract, and shall provide and maintain all temporary power lines required to perform the work in a safe and satisfactory manner.
- B. Construction Lighting. All work conducted at night or under conditions of deficient daylight shall be suitably lighted to insure proper work and to afford adequate facilities for inspection and safe working conditions.
- C. Approval of Electrical Connections. All temporary connections for electricity shall be subject to approval of the Owner and the power company representative, and shall be removed in like manner at the Contractor's expense prior to final acceptance of the work.

- D. Separation of Circuits. Unless otherwise permitted by the Engineer, lighting circuits shall be separate from power circuits.
- E. Construction Wiring. All wiring for temporary electric light and power shall be properly installed and maintained and shall be securely fastened in place. All electrical shall conform to the facilities requirements of Subpart K of the OSHA Safety and Health Standards for Construction and be approved by the Owner.

3.02 WATER SUPPLY

- A. General. The Contractor shall provide, at his own expense, an adequate supply of water for construction purposes unless otherwise specified elsewhere for the work being performed. The Contractor shall pay the water utility for water used at the job site and any meter fees required by the Owner.
- B. The Contractor shall provide and operate all pumping facilities, pipelines, valves, hydrants, storage tanks, and all other equipment necessary for the adequate development and operation of the temporary water supply system. The Contractor shall be solely responsible for the adequate functioning of its water supply system and shall be solely liable for any claims arising from the use of same, including discharge or waste of water therefrom.
- C. Potable Water. All drinking water on the site during construction shall be furnished by the Contractor.
- D. Water Connections. The contractor shall not make connection to, or draw water from, any fire hydrant or Pipeline without first obtaining permission of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning the affected water system. For each connection made, the Contractor shall first attach to the fire hydrant or pipeline a valve and a meter, if required by the said authority, of a size and type acceptable to said authority and agency. Only approved hydrant wrenches may be used to open and close hydrants. In instances where connections are made to water pipelines for the purpose of pressure testing newly constructed force mains or sewers, a double check valve system and pressure gage shall be utilized to prevent back flow into the water main system. In addition, all such testing should be performed in the presence of the Owner.
- E. Removal of Water Connections. Before final acceptance of the Work on the project, all temporary connections and piping installed by the Contractor shall be entirely removed, and all affected improvements shall

be restored to their original condition, or better, to the satisfaction of the Engineer and to the agency owning the affected utility.

- F. Fire Protection. The construction plant and all other parts of the work shall be connected with the Contractor's water supply system and shall be adequately protected against damage by fire. Hose connections and hose, water casks, chemical equipment, or other sufficient means shall be provided for fighting fires in the temporary structures and other portions of the work, and responsible persons shall be designated and instructed in the operation of such fire apparatus so as to prevent or minimize the hazard of fire. The Contractor's fire protection program shall conform to the requirements of Subpart F of the OSHA Standards for Construction.

3.03 SANITATION

- A. Toilet Facilities. Fixed or portable chemical toilets shall be provided wherever needed for the use of employees. Toilets at construction job sites shall conform to the requirements of Subpart D, Section 1026.51 of the OSHA Standards for Construction..
- B. Sanitary and Other Organic Wastes. The Contractor shall establish regular collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or organic materials wastes from any other source related to the Contractor's operations shall be disposed of away from the site in a manner satisfactory to the Engineer and in accordance with all laws and regulations pertaining thereto. Disposal of all such wastes shall be at the Contractor's expense.

3.04 COMMUNICATIONS

- A. Telephone Services. The Contractor shall provide and maintain at all times during the progress of the Work, at its own expense, not less than one telephone in good working order, at its own field construction office, or, if no Contractor field office is provided, near the site of the work included in the Contract. Each such telephone shall be connected to an established exchange for toll service and with all other telephones utilized by the Contractor.
- B. Telephone Use. The Contractor shall permit the Engineer, the Owner, or their authorized representatives or employees free and unlimited use of said telephone facilities for all calls that do not involve published toll charges. Call originated by the Engineer, the Owner, their authorized representatives or employees which involve toll or message unit charges shall be billed to the Engineer by the Contractor at the rates charged by the telephone company.

3.05 SAFETY

- A. General. Appropriate first aid facilities and supplies shall be kept and maintained by the Contractor at the site of the work. In addition, all employees of the Contractor and his subcontractors shall be provided with, and required to use, personal protective and life saving equipment as set forth in Subpart E of the OSHA Safety and Health Standards for Construction (29 CFR 1926).
- B. Public Safety. During the performance of the work the Contractor shall erect and maintain temporary fences, bridges, railings, and barriers and shall take all other necessary precautions and place proper guards for the prevention of accidents and he shall erect and maintain suitable and sufficient lights and other signals.

END OF SECTION

SECTION 01530

PROTECTION OF EXISTING FACILITIES AND PROPERTY

PART 1 – GENERAL

1.01 DESCRIPTION

The Contractor shall protect all existing utilities, structures, and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements specified herein, and in accordance with the requirements of the Contract Documents.

1.02 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the preservation of all public and private property, and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition similar or equal to that existing before the damage was done, or he shall make good the damage in another manner acceptable to the Engineer.
- B. Along the location of this Work all fences, walks, brushes, trees, shrubbery, and other physical features shall be protected and restored in a thoroughly workmanlike manner. Fences and other features removed by the Contractor shall be replaced in the location indicated by the Engineer as soon as conditions permit. All grass areas beyond the limits of construction which have been damaged by the Contractor shall be regraded and sodded.
- C. Trees close to the Work shall be boxed or otherwise protected against injury. The Contractor shall trim all branches that are liable to damage because of his operations, but in no case shall any tree be cut or removed without prior notification of the Engineer. All injuries to bark, trunk, limbs, and roots of trees shall be repaired by dressing, cutting, and painting according to approved methods, using only approved tools and materials.
- D. The protection, removal, and replacement of existing physical features along the line of work shall be a part of the work under the Contract, and all costs in connection therewith shall be included in the unit and/or lump sum prices established under the items in the bid form.

1.03 OPEN EXCAVATIONS

All open excavations shall be adequately safeguarded by providing temporary barricades, cautions signs, lights, and other means to prevent accidents to persons, and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen.

1.04 UTILITY EXPLORATION

- A. Test pits for the purpose of locating underground pipelines or structures in advance of the construction shall be excavated and backfilled by the Contractor prior to commencement of construction. Test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the Engineer.
- B. The Contractor shall determine the exact locations and depths of all utilities indicated on the drawings. In addition to those indicated, the Contractor shall make exploratory excavations of all utilities. All such exploratory excavations shall be performed as soon as practicable after award of contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's work. When such exploratory excavations show the utility location as indicated on the drawings to be in error, the Contractor shall so notify the Engineer. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment of the utility.
- C. The locations of underground and other nonvisible utilities shown have been determined from data either furnished by the agencies controlling such data and/or extracted from records made available by agencies controlling such records. Where found, the surface features of locations are shown. The actual nonvisible locations may vary from those shown. Each agency should be contacted relative to the precise location of its underground installation prior to any reliance upon the accuracy of such location shown. Prior to excavating, the Contractor shall call Louisiana One Call (1-800-272-3020) to mark the construction area.

1.05 RIGHTS-OF-WAY

- A. The Contractor shall not do any work that would affect any oil, gas, railroad, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; any fence; or any other structure, nor shall the Contractor enter upon the rights-of-way involved until the Contractor has secured authority therefore from the proper party. After authority has been obtained, the Contractor shall give said party due notice of his intention to begin work, and shall give said party convenient access and every facility for removing,

shoring, supporting, or otherwise protecting such pipeline, transmission line, ditch, fence, or structure, and for replacing same. When 2 or more contracts are being executed at one time on the same or adjacent land in such manner that work on one contract may interfere with that on another, the Owner shall decide which Contractor shall progress at the same time, and in what manner. When the territory of one contract is the necessary or convenient means of access for the execution of another contract, such privilege of access or any other reasonable privilege may be granted by the Owner to the Contractor so desiring, to the extent, amount, in the manner, and at the times permitted. No such decision as to the method or time of conducting the work or the use of territory shall be made the basis of any claim for delay or damage, except as provided for temporary suspension of the work in the General Conditions of the Contract.

- B. The Contractor shall be aware that his work will be performed adjacent to private property. The Contractor shall notify all property owners adjacent to and along the route once at the award of the contract and once at least 48 hours in advance of construction by means of either a printed circular or form letter of the general details of the construction. The letter shall also include names and telephone numbers for key project personnel so that property owners can report problems. These contact telephone numbers shall be given so that appropriate personnel can be contacted 24 hours a day, seven days a week.

1.06 PROTECTION OF STREET OR ROADWAY MARKERS AND TRAFFIC SIGNS

The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers without proper authorization. It shall be the Contractor's responsibility to notify the proper representatives of the Owner of the time and location that work will be done. Such notification shall be sufficiently in advance of construction so that there will be no delay due to waiting for survey points to be satisfactorily referenced for restoration. All survey markers or points disturbed, without proper authorization by the Engineer, will be accurately restored at the Contractors expense. All traffic signs shall be restored to the original condition and location at the Contractors expense.

1.07 NOTIFICATION BY THE CONTRACTOR

Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, petroleum products, or other pipeline; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities five (5) working days, or as otherwise stated elsewhere or required by authority with jurisdictional authority, prior to excavation so that a representative of said Owners or agencies can be present during

such work if they so desire. The Contractor shall request that each utility Owner mark (or stakeout) in the field the location of existing facilities.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 EXISTING UTILITIES AND IMPROVEMENTS

A. General:

The Contractor shall protect all utilities and other improvements which may be impaired during construction operations. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements indicated on the drawings that will be encountered in his construction operations and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be directed by the Engineer.

B. Owner's Right of Access:

The right is reserved to the Owner and to the owners of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the work of this Contract.

C. Known Utilities:

Existing utility lines that are shown on the drawings or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired by the Contractor at his expense.

D. Unknown Utilities:

The Contractor is required to use care in preparing excavations and shall conduct Utility Explorations including utility excavations and field investigations to assess the layout of subsurface facilities at each excavation site prior to the commencement of work. The Contractor shall uncover subsurface obstructions in advance of construction so that existing subsurface facilities may

be identified before the work reaches the obstruction. The Contractor shall proceed at all times with caution while excavating.

- E. Should the Contractor encounter subsurface and/or latent conditions at the site substantially different from those shown on the Drawings or indicated in the Specifications, he shall immediately give notification to the Engineer of such conditions. The Engineer shall thereon promptly investigate the conditions and if he finds that they are substantially different from those shown on the Plans or Specifications, he shall make such changes in the Plans and/or Specifications as he may find necessary. Any increase or decrease in the cost resulting from these changes when appropriate shall be adjusted under the applicable provisions of the contract documents.

- F. Utilities to be Removed:

When utility lines that are to be removed are encountered within the area of operations, the Contractor shall notify the Utility Owner and the Engineer a sufficient time in advance for the necessary measures to be taken to prevent interruption of the service.

- G. Approval of Repairs:

All repairs to a damaged improvement shall be inspected and approved by an authorized representative of the improvement owner before being concealed by backfill or other work.

- H. Relocation of Utilities:

Where the proper completion of the work requires the temporary or permanent removal and/or relocation of an existing utility or other improvement which is shown on the drawings, the Contractor shall at his own expense and with prior approval from the Owner of the utility, remove and, without, unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Owner of the facility. In all cases of such temporary removal or relocation, restoration to former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal. In the event that the Utility Owner prefers its personnel to perform the above described work, the Contractor shall fully reimburse said utility Owner for any costs associated with such work.

- I. Maintaining in Service:

All oil and gasoline pipelines, power, and telephone or other communication cable ducts, gas and water mains, irrigation lines, sewer

lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the work shall be maintained continuously in service during all the operations under the Contract, unless other arrangements are made satisfactory to the Owner or jurisdictional authority of said pipelines, duct, main, irrigation line, sewer, storm drain, pole or wire or cable. The Contractor shall be responsible for and shall make good all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

3.02 SUBSURFACE OBSTRUCTIONS

- A. The Contractor shall, field determine before pipeline trench and associated excavations are begun the depth and location of existing utilities. Utility locations indicated on the plans were obtained from the records available, but have not been field verified, nor have depths been measured or observed. The Contractor shall submit descriptions, depths, and locations of subsurface obstructions to the Engineer for review at the time if it is determined that obstructions exist before or after excavation.
- B. In excavation, backfilling, and in laying pipe, care shall be taken not to remove, disturb, or injure existing pipes, conduits or structures. If necessary, the Contractor at his own expense, shall sling, shoreup, and maintain such structures in operation.
- C. The Contractor shall obtain the permission of and give sufficient notice to the proper authorities of their intention to remove or disturb any pipe, conduit, etc., and shall abide by their regulations governing such work.
- D. In the event that subsurface structures are broken or damaged in the prosecution of the Work, the Contractor shall immediately notify the proper authorities and the Engineer, and at the option of said authority, either repair the damage at once at his own expense, or pay the proper charges for repairing said damage. Repairs shall be made to the satisfaction of the Owner. The Contractor shall be responsible for any damage to, persons or property caused by such breaks, or due to his own neglect in reporting and/or repairing such damages.

3.03 TREES AND SHRUBS WITHIN RIGHTS-OF-WAY AND PROJECT LIMITS

- A. General:

The Contractor shall exercise all necessary precautions so as not to damage or destroy any trees or shrubs, including those lying within street rights-of-way and within or outside the project limits, and shall not trim, remove or

relocate any trees unless such trees have been approved for trimming, removal or relocation by the Engineer and the jurisdictional agency or Owner. All existing trees and shrubs which are damaged during construction shall be trimmed, replaced, or relocated by a certified tree company under permit from the jurisdictional Agency or Owner. Tree trimming, replacement, and relocation shall be accomplished in accordance with the following paragraphs or as otherwise required in the Contract Documents. The cost of such work shall be considered incidental to the construction of the facilities proposed and no direct payment will be made.

B. Preserve:

Contractor shall take extra measures to protect trees designated to be preserved, such as erecting barricades, trimming to prevent damage from construction equipment, and installing pipe and other Work by means of hand excavation or tunneling methods. Such trees shall not be endangered by stockpiling excavated material or storing equipment against trunk or over root system.

C. Trimming:

Symmetry of the tree and shrubs shall be preserved; no stubs or splices or tom branches left; clean cuts shall be made close to trunk or large branch. Spikes shall not be used for climbing live trees. All cuts over 1-1/2 inches in diameter shall be coated with an asphaltic emulsion material.

END OF SECTION

SECTION 01550

SITE ACCESS

PART 1 – GENERAL

1.01 HIGHWAY LIMITATIONS

The Contractor shall make its own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the site of the Work. It shall be the Contractor's responsibility to, construct and maintain, at its own expense, any haul roads required for his construction operations.

1.02 TEMPORARY CROSSINGS

A. General

Wherever necessary or required for the convenience of the public or individual residents at street or highway crossings, private driveways, or elsewhere, the Contractor shall provide suitable temporary bridges over unfilled excavations, except in such cases as the Contractor shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges, which written consent shall be delivered to the Engineer prior to excavation. All such bridges shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the Contractor shall adopt designs furnished by said authority for such bridges, or shall submit designs to said authority for approval, as may be required.

B. Street Use

Nothing herein shall be construed to entitle the Contractor to the exclusive use of any public street, alleyway, or parking area during the performance of the Work hereunder, and he shall so conduct his operations as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such streets, alleyways, or parking areas. No street shall be closed in the public without first obtaining permission of the Owner and proper governmental authority. Where excavation is being performed in primary streets or highways, one lane in each direction shall be kept open to traffic at all times unless otherwise provided or shown. Toe boards shall be provided to retain excavated material if required by the Engineer or the agency having jurisdiction over the street or highway. Fire hydrants on or adjacent to the Work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the Contractor to assure the use

of sidewalks and the proper functioning of all gutters, sewer inlets, or other drainage facilities.

C. Street Closure

If closure of any street is required during construction, a formal application for a street closure shall be made to the authority having jurisdiction at least 30 days prior, unless otherwise required by jurisdictional authority, to the required street closure in order to review necessary signing and detour requirements.

END OF SECTION

SECTION 01560

TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 – GENERAL

1.01 EXPLOSIVES AND BLASTING

The use of explosives on the work will not be permitted.

1.02 DUST ABATEMENT

The Contractor shall furnish all labor, equipment, and means required and shall carry out effective measures wherever and as often as necessary to prevent its operation from producing dust in amounts damaging to property, cultivated vegetation, or domestic animals, or causing a nuisance to persons living in or occupying buildings in the vicinity. The Contractor shall be responsible for any damage resulting from any dust originating from its operations. The dust abatement measures shall be continued until the Contractor is relieved of further responsibility by the Engineer.

1.03 RUBBISH CONTROL

During the progress of the work, the Contractor shall keep the site of the work and other areas used by it in a neat and clean condition, and free from any accumulation of rubbish. The Contractor shall dispose of all rubbish and waste materials of any nature occurring at the work site, and shall establish regular intervals of collection and disposal of such materials and waste. The Contractor shall also keep its haul roads free from dirt, rubbish, and unnecessary obstructions resulting from its operations. Equipment and material storage shall be confined to areas approved by the Engineer. Disposal of all rubbish and surplus materials shall be off the site of construction, at the Contractor's expense, all in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and to the particular requirements of Subpart H, Section 1926.252 of the OSHA Safety and Health Standards for Construction.

1.04 CHEMICALS

All chemicals used during project construction or furnished for project operation, whether defoliant, soil sterilant, herbicide, pesticide, disinfectant, polymer, reactant or of other classification, shall show approval of either the U.S. Environmental Protection Agency or the U.S. Department of Agriculture. Use of all such chemicals and disposal of residues shall be in strict accordance with the printed instructions of the manufacturer.

1.05 EROSION CONTROL

- A. Contractor shall prevent erosion of soil on the site and adjacent property resulting from his construction activities. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operation that will disturb the natural protection.
- B. Work shall be scheduled to expose areas subject to erosion for the shortest possible time, and natural vegetation preserved to the greatest extent practicable. Temporary storage and construction buildings shall be located, and construction traffic routed, to minimize erosion. Temporary fast growing vegetation or other suitable ground cover shall be provided as necessary to control runoff.

1.06 POLLUTION CONTROL

Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris or other substance will be permitted to enter sanitary sewers and reasonable measures will be taken to prevent such materials from entering any drain or watercourse.

1.07 NOISE ABATEMENT

It shall be the responsibility of the Contractor to provide for noise abatement for all equipment and procedures that might be required for execution of the project.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Material and equipment incorporated into the work:
 - 1) Conform to applicable specifications and standards.
 - 2) Comply with size, make, type and quality specified, or as specifically approved, in writing, by the Engineer.
 - 3) Manufactured and Fabricated Products:
 - (a) Design, fabricate and assemble in accord with the best engineering and shop practices.
 - (b) Manufacture like parts of duplicate units to standard sizes and gages, to be interchangeable.
 - (c) Two or more items of the same kind shall be identical, by the same manufacturer.
 - (d) Products shall be suitable for service conditions.
 - 4) Do not use material or equipment for any purpose other than that for which it is designed or is specified.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract
- B. Section 01010: Summary of Work
- C. Section 01340: Shop Drawings, Working Drawings and Samples
- D. Section 01710: Cleaning
- E. Section 01730: Operating and Maintenance Data

1.03 REUSE OF EXISTING MATERIAL

Except as specifically indicated or specified, materials and equipment removed from the existing structure shall not be used in the completed work.

1.04 MANUFACTURER'S INSTRUCTIONS

- A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain, and distribute copies of such instructions to parties involved in the installation, including two (2) copies to the Engineer.
 - 1) Maintain one (1) set of complete instructions at the job site during installation and until completion.
- B. Handle, install, connect, clean, condition and adjust products in strict accord with such instructions and in conformity with specified requirements.
 - 1) Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Engineer for further instructions.
 - 2) Do not proceed with work without clear instructions.
- C. Perform work in accord with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

1.05 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accord with construction schedules; coordinate to avoid conflict with work and conditions at the site.
 - 1) Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 - 2) Immediately upon delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals, and that products are properly protected and undamaged.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.06 STORAGE AND PROTECTION

- A. Store products in accord with manufacturer's instructions, with seals and labels intact and legible.
 - 1) Store products subject to damage by the elements in weathertight enclosure.
 - 2) Maintain temperature and humidity within the ranges required by manufacturer's instructions.
- B. Exterior Storage
 - 1) Store fabricated products above the ground, on blocking or skids, prevent soiling or staining. Cover products which are subject to deterioration with impervious sheet coverings, provide adequate ventilation to avoid condensation.
 - 2) Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter and entrance to drainage systems.
- C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.
- D. Protection after Installation
 - 1) Provide substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations. Remove when no longer needed.

1.07 SUBSTITUTIONS AND PRODUCT OPTIONS

- A. Products List
 - 1) Within 30 days after contract date, submit to the Engineer a complete list of major products proposed to be used, with the name of the manufacturer, supplier, and the installing contractor or subcontractor.
- B. Contractor's Options
 - 1) For products specified only by reference standard, select any product meeting that standard.

- 2) For products specified by naming several products or manufacturers, select any one of the products or manufacturers named, which complies with the specifications.
- 3) For products specified by naming one or more products or manufacturers and "or equal", Contractor must submit a request as for substitutions for any product or manufacturer not specifically named.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01620

STORAGE AND PROTECTION

PART 1 – GENERAL

1.01 SCOPE OF WORK

Provide secure storage and protection for products to be incorporated before and after installation and until completion of the Work.

1.02 STORAGE

- A. Store products immediately on delivery and protect until installed in the Work.
 - 1. Store in accordance with manufacturer's instructions, with seals and labels intact and legible.
- B. Store Products subject to damage by elements in substantial weather tight enclosures.
 - 1. Maintain temperatures within ranges required by manufacturer's instructions.
 - 2. Provide humidity control for sensitive products, as required by manufacturer's instruction.
 - 3. Store unpacked products on shelves, in bins or in neat piles, accessible for inspection.
- C. Exterior Storage
 - 1. Provide substantial platforms, blocking or skids to support fabricated products above ground, prevent soiling or staining.
 - a. Cover products, subject to discoloration or deterioration from exposure to the elements, with impervious sheet coverings. Provide adequate ventilation to avoid condensation.
 - 2. Store loose granular materials on solid surfaces such as paved areas or provide plywood or sheet materials to prevent mixing with foreign matter.
 - a. Provide surface drainage to prevent flow or ponding of rainwater.
 - b. Prevent mixing of refuse or chemically injurious materials or liquids.
- D. Arrange storage in a manner to provide easy access for inspection.

END SECTION

SECTION 01700

CONTRACT CLOSEOUT

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

Comply with requirements stated in Conditions of the Contract and in specifications for administrative procedures in closing out the work.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Conditions of the Contract. Fiscal provisions, legal submittals, and additional administrative requirements.
- B. Section 01710: Cleaning.
- C. Section 01720: Project Record Documents.
- D. Section 01730: Operating and Maintenance Data.
- E. Section 01740: Warranties and Bonds.

1.03 SUBSTANTIAL COMPLETION

- A. When the Contractor considers the work is substantially complete, he shall submit to the Engineer:
 - 1) A written notice that the Work, or designated portion thereof, is substantially complete.
 - 2) A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, the Engineer will make an inspection to determine the status of completion.
- C. Should the Engineer determine that the work is not substantially complete:
 - 1) The Engineer will promptly notify the Contractor, in writing, giving the reasons therefor.
 - 2) The Contractor shall remedy the deficiencies in the work and send a second written notice of substantial completion to the Engineer.
 - 3) The Engineer will reinspect the work.

- D. When the Engineer finds that the work is substantially complete, he will:
- 1) Prepare and deliver to the Owner a tentative Certificate of Substantial Completion on the appropriate City or Parish form with - a tentative list of items to be completed or corrected before final payment.
 - 2) After consideration of any objections made by the Owner as provided in Conditions of the Contract, and when the Engineer considers the work substantially complete, he will execute and deliver to the Owner and the contractor a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

1.04 FINAL INSPECTION

- A. When Contractor considers the work is complete, he shall submit written certification that:
- 1) Contract Documents have been reviewed.
 - 2) Work has been inspected for compliance with Contract Documents.
 - 3) Work has been completed in accordance with Contract Documents.
 - 4) Equipment and systems have been tested in the presence of the Owner's representative and are operational.
 - 5) Work is completed and ready for final inspection.
- B. Engineer will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
- C. Should Engineer consider that the work is incomplete or defective:
- 1) Engineer will promptly notify the contractor, in writing, listing the incomplete or defective work.
 - 2) Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to Engineer that the work is complete.
 - 3) Engineer will reinspect the work.

- D. When the Engineer finds that the work is acceptable under the Contract Documents, he shall request the Contractor to make closeout submittals.

1.05 REINSPECTION FEES

- A. Should the Engineer perform reinspections due to failure of the work to comply with the claims of status of completion made by the Contractor:
 - 1) Owner will compensate Engineer for such additional services.
 - 2) Owner will deduct the amount of such compensation from the final payment to the Contractor.

1.06 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum:
 - 1) The original Contract Sum.
 - 2) Additions and deductions resulting from:
 - (a) Previous Change Orders
 - (b) Unit Prices
 - (c) Penalties and Bonuses
 - (d) Deductions for liquidated damages
 - (e) Deductions for reinspection payments
 - (f) Other adjustments
 - 3) Total Contract Sum, as adjusted.
 - 4) Previous payments.
 - 5) Sum remaining due.
- C. Engineer will prepare a final Change order, reflecting approved adjustments to the contract sum which are not previously made by change orders.

1.07 FINAL APPLICATION FOR PAYMENT

Contractor shall submit the final application for payment in accordance with procedures and requirements stated in the Conditions of the Contract.

1.08 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ENGINEER

- A. Project Record Documents.
- B. Warranties and Bonds.
- C. Evidence of Payment and Release of Liens: To requirements of General and Supplementary conditions.
- D. Certificates of Insurance for Products and Completed operations.
- E. GPS Locations of installed meters.
- F. Maintenance Manuals.
- G. User / Operating Manuals.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01710

CLEANING

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

Execute cleaning, during progress of the work, and at completion of the work, as required by General conditions.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract.
- B. Each Specification Section: Cleaning for specific products or work.

1.03 DISPOSAL REQUIREMENTS

Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 – EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute periodic cleaning to keep the work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris, and rubbish.

- C. Remove waste materials, debris, and rubbish from the site periodically and dispose of legal disposal areas away from the site in accordance with applicable local, state, and federal codes, ordinances, and other requirements.

3.02 FINAL CLEANING

- A. Employ skilled, workmen for final cleaning.
- B. Rake the surfaces of the grounds clean.
- C. Prior to final completion, or Owner occupancy, Contractor shall conduct an inspection of sight-exposed exterior surfaces, and all work areas, to verify that the entire work is clean.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.01 DESCRIPTION

The Contractor shall maintain at the site for the Owner's permanent records one copy of:

1. Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other Modifications to the Contract.
5. Engineer Field Orders or Written Instructions.
6. Approved Shop Drawings, Product Data, Warranties.
7. Field Test Records.
8. Construction Photographs.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01340: Shop Drawings, Product Data and Samples.
- B. Section 01700: Contract Closeout.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. The Contractor shall store documents and samples in Contractor's field office or safely on-site apart from documents used for construction.
- B. The Contractor shall provide files and racks for storage of documents.
- C. The Contractor shall maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- D. The Contractor shall make documents and samples available at all times for inspection by the Engineer and Owner.

3.02 MARKING-UP RECORD DRAWINGS

The Contractor shall mark with red erasable pencil and, where necessary, use other pencil colors, as required.

3.03 RECORDING

- A. Label each document (including record prints and shop drawings) "PROJECT RECORD" in neat large, printed letters.
- B. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- C. GPS Locations of Installed Water Meters:
 - 1. Contractor shall provide GPS location information (x, y, and z coordinates) of each new water meter installed. The z coordinate shall use the NAVD 88 datum.
 - 2. The GPS coordinates shall be submitted with each payment application for the meters that were installed during the period of that payment application.
- D. Specifications and Addenda. The Contractor shall legibly mark each Section to record:
 - 1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
 - 2. Changes made by Field Order or by Change Order.

3.04 SUBMITTALS

- A. At Contract close-out deliver record documents to the Engineer including GPS location of water meters, specifications, addenda, change orders and other modifications to contract; Engineers field orders and written instructions, approved shop drawings, product data, field test records and any other documents which serve as a record of actual field installation and construction different from the original contract documents. Engineer will submit them to Owner.
- B. Accompany submittals with transmittal letters in duplicates containing:
 - 1. Date
 - 2. Project title and number
 - 3. Contractor's name and address

4. Title and number of each Record Document
5. Signature of Contractor or his authorized representative

END OF SECTION

SECTION 01730

OPERATING AND MAINTENANCE DATA

PART I - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Compile product data and related information appropriate for Owner's maintenance and operation of products furnished under contract. Prepare operating and maintenance data as specified in this section and as referenced in other pertinent sections of the specifications.
- B. Instruct Owner's personnel in maintenance of products and in operation of equipment and systems.

1.02 RELATED REQUIREMENTS

- A. Section 01340: Shop Drawings, Product Data and Samples.
- B. Section 01700: Contract Closeout.
- C. Section 01740: Warranties and Bonds.

1.03 FORM OF SUBMITTALS

- A. Prepare data in form of an instructional manual for use by Owner's personnel.
- B. Format:
 - 1. Size: 8 1/2" X 11".
 - 2. Paper: 20 pound minimum, white, for typed pages.
 - 3. Text: Manufacturer's printed data, or neatly typewritten.
 - 4. Drawings:
 - a. Provide reinforced punched binder tab, bind in with text.
 - b. Fold larger drawings to size of text pages.
 - 5. Provide fly-leaf for each separate product or each piece of operating equipment.
 - a. Provide typed description of product and major component parts of equipment.
 - b. Provide indexed tabs:
 - 6. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS".
 - List:
 - a. Title of project.
 - b. Identity of separate structure as applicable.
 - c. Identity of general subject matter covered in the manual.

C. Binders:

1. Commercial quality 3-ring binders with durable and cleanable plastic covers.
2. Maximum ring size: 1”
3. When multiple binders are used, correlate the data into related consistent groupings.

1.04 MANUAL FOR EQUIPMENT AND SYSTEMS

A. Submit five (5) copies of complete manual in final form unless otherwise specified elsewhere.

B. Content, for each unit of equipment and system, as appropriate:

1. Description of unit and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature and commercial number of replaceable parts, which are cross-referenced with manufacturer's parts list.
2. Operating procedures:
 - a. Start-up, break-in, routine, and normal operating instructions.
 - b. Regulation, control, stopping, shutdown, and emergency instructions.
 - c. Summer and winter operating instructions (if applicable).
 - d. Special operating instructions.
3. Maintenance Procedures:
 - a. Routine operations.
 - b. Guide to "trouble-shooting".
 - c. Disassemble, repair, and reassemble.
 - d. Alignment, adjusting and checking.
4. Servicing and lubrication schedule.
 - a. List of lubricants required.
5. Manufacturer's printed operating and maintenance instructions.
6. Description of sequence of operation by control manufacturer.
7. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
 - a. Predicted life of parts subject to wear.
 - b. Items recommended to be stocked as spare parts.
8. As-installed control diagrams by controls manufacturer.

9. Each contractor's coordination drawings.
 - a. As-installed color-coded piping diagrams.
 10. Charts of valve tag numbers, with location and function of each valve.
 11. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
 12. Other data as required under pertinent sections of specifications.
- C. Content, for each electric and electronic system, as appropriate:
1. Description of system and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 2. Circuit directories of panel boards.
 - a. Electrical service.
 - b. Controls.
 - c. Communications.
 3. As-installed color-coded wiring diagrams.
 4. Operating procedures:
 - a. Routine and normal operating instructions.
 - b. Sequences required.
 - c. Special operating instructions.
 5. Maintenance procedures:
 - a. Routine operations.
 - b. Guide to "trouble-shooting".
 - c. Disassembly, repair and reassembly.
 - d. Adjustment and checking.
 6. Manufacturer's printed operating and maintenance instructions.
 7. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
 8. Other data as required under pertinent sections of specifications.
- D. Prepare and include additional data when the need for such data becomes apparent during instruction of Owner's personnel.

- E. Additional requirements for operating and maintenance data: Respective sections of specifications.

1.05 SUBMITTAL SCHEDULE

- A. Submit two (2) copies of preliminary draft of proposed formats and outlines of contents. Engineer will review draft and return one copy with comments.
- B. Submit one (1) copy of completed data in final form fifteen (15) days prior to final inspection. Copy will be returned after final inspection with comments.
- C. Submit specified number of copies of approved data in final form ten (10) days after final inspection.

1.06 INSTRUCTION OF OWNER'S PERSONNEL

- A. Prior to final inspection or acceptance, fully instruct Owner's designated operating and maintenance personnel in operation, adjustment, and maintenance of products, equipment and systems.
- B. Operating and maintenance manual shall constitute the basis of instruction. Review contents of manual with personnel, in full detail, to explain all aspects of operations and maintenance.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01740

WARRANTIES AND BONDS

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Compile specified warranties and bonds.
- B. Compile specified service and maintenance contracts.
- C. Co-execute submittals when so specified.
- D. Review submittals to verify compliance with Contract Documents.
- E. Submit to Engineer for review and transmittal to Owner.

1.02 RELATED REQUIREMENTS

- A. Invitation to Bid, Information for Bidders: Bid Bonds.
- B. Conditions of the Contract: Performance Bond and Labor and Material Payment Bond.
- C. Conditions of the Contract: General Warranty of Construction.
- D. Section 01700: Contract Closeout.

1.03 SUBMITTAL REQUIREMENTS

- A. Assemble warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Number of original signed copies required: Two (2) each.
- C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
 - 1. Product or work item.
 - 2. Firm, with name of principal, address, and telephone number.
 - 3. Scope.
 - 4. Date of beginning of warranty, bond or service and maintenance contract.
 - 5. Duration of warranty, bond, or service maintenance contract.
 - 6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure.

- b. Instances which might affect the validity of warranty or bond.
- 7. Contractor, name of responsible principal, address, and telephone number.

1.04 FORM OF SUBMITTALS

- A. Prepare in duplicate packets.
- B. Format:
 - 1. Size 8 ½" x 11", punch sheets for standard 3-ring binder. Fold larger sheets to fit into binders.
 - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS". List:
 - a. Title of project.
 - b. Name of Contractor.
- C. Binders: Commercial quality, 3-ring, with durable and cleanable plastic covers.

1.05 TIME OF SUBMITTALS

- A. Make submittals within ten days after Date of Substantial Completion, prior to final request for payment.
- B. For items of work, where acceptance is delayed materially beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

1.06 SUBMITTALS REQUIRED

Submit warranties, bonds, service and maintenance contracts as specified in respective sections of specifications.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 11850

MOBILE BELT FILTER PRESS

PART 1 - GENERAL REQUIREMENTS

1.01 Scope of Work

This Section shall include furnishing of all equipment specified, operation/maintenance manuals, spare parts (if specified), training, performance testing, and delivery to job site, a complete sludge dewatering system consisting of one (1) 1.7-meter mobile open trailer mounted skid system Belt Filter Press (BFP), complete with ancillary equipment, as specified and indicated on any drawings, if provided, and as required to meet the specified minimum performance and quality requirements.

Equipment furnished and installed under this Section shall be fabricated, assembled, erected, and placed in proper operating condition in full conformity with the Contract Documents, specifications, engineering data, instructions, and recommendations of the Belt Filter Press (BFP) manufacturer, unless exceptions are noted and approved by the Engineer prior to installation. The name of a certain brand, make, manufacturer, or definite specifications herein is to denote the quality standard of the article desired, but does not restrict bidders to the specific brand, make, manufacturer, or specification named. It is to set forth and convey to prospective bidders the general style, type, character, and quality of article desired. The bidder shall provide documentation to demonstrate a requested substitute product complies with the requirements and attributes such as performance, size, weight, durability, sustainable design characteristics, warranties, and other specific features specified herein. The substitution request for an equal product shall include a detailed comparison (point by point) of significant attributes and qualities of the proposed substitution, including an annotated copy of applicable specification sections, and any potential impact to delivery times and overall construction time frame. The burden of proof of the merit of the proposed substitute is upon the proposer. All work associated with accommodating alternate equipment shall be at no additional cost to the owner even if the proposed substitution is rejected.

Unless otherwise specified, all BFP materials shall be a minimum of 304 stainless steel, 316 stainless steel or approved wear resistant plastic. All fasteners shall be of a minimum of type 18-8 stainless steel. All welding shall be in accordance with the latest applicable codes of the American Welding Society.

All equipment shall be factory assembled and tested prior to shipment or transport to ensure proper operation of all systems and be readied for field connections. Any and all parts that may be easily damaged during shipping, delivery, storage, and installation and that can be easily field assembled after installation shall be packaged separately.

1.02 General System Description

The sludge dewatering system shall consist of one (1) Belt Filter Press, Ancillary Equipment, Interconnecting Wiring and at a minimum:

- Positive displacement sludge feed pump with VFD direct gear drive motor
- Emulsion polymer feed/blend system
- In-line adjustable sludge/polymer mixer with injection ring
- Sludge Retention and Polymer piping
- Twin belt filter press, stainless steel construction with dual drive belt drive, pneumatic belt

- tracking & tensioning, minimum of eight (8) 304 stainless-steel high-pressure rolls, 50 Pounds per Linear Inch (PLI) rating throughout
- Air compressor with receiver
- Washwater Booster pump
- Sludge magnetic flow meter
- **Inline Sludge Grinder** (Note: Belt Press unit to be equipped with Inline Sludge Grinder.)
- 10HP Filtrate Pump with Level Auto Controls (not included in project)
- NEMA 4X Stainless Steel electrical control panel with Touch Screen operator interface
- Interconnecting wiring & plumbing
- Sludge Cake Discharge Conveyor
- Spare Parts (Not Applicable)
- Delivery
- Installation & Training

Only units having a twin belt filter press with a measured belt width of 1.7 meters, 1.6 meters effective filtration area, shall be considered acceptable under this specification. The unit(s) shall be the Bright Technologies Belt Filter Press Model P50-6700-8D as manufactured by Bright Technologies, Hopkins, Michigan or be a pre-approved equal by the Engineer.

The overall dimensions of the belt filter press room and/or operating area shall be such that the installation of the system allows clearance on one side equal to the overall width of the belt filter press for the removal of rollers, as well as a minimum clearance of 3'-0" on all other sides of the press.

The minimum clearance requirements specified herein shall not relieve the contractor from allowing additional clearances for the proper installation, operation, and maintenance of the unit(s). Should equipment other than that specified be proposed, the contractor shall be responsible for any redesign based on the requirements contained herein.

1.03 Related Work to Be Provided By Others

Based on the specified BFP unit the below listed utilities are required for testing and future operations:

- Water: 60 GPM for Belt Wash @ 5 – 40 PSI (potable or non-potable but low TSS)
- Water: 10 GPM Potable for Polymer System
- Electrical: 460 VOLT 3 PHASE AT 60 AMPS Min.
- Discharge: 6-inch Gravity Drain from BFP Skid Sump

The Contractor will be fully responsible for providing all necessary properly licensed and certified personnel to connect the following items prior to the initial start-up and performance testing to be conducted with the Owner and Manufacturer representatives on site:

- Site Preparation
- Main power connection (to unit)
- Belt Press & Polymer System water supply connection(s)
- Sludge supply connection(s)
- Skid sump discharge installation

There is a fire hydrant on the project site where the unit will be initially set-up, tested, and operated in order to provide a potable water supply required for the operation of the belt wash and polymer systems. The Contractor will be responsible for providing the hose(s), cam locks, & adapters, etc. necessary to make the proper connections to the existing fire hydrant (2-1/2" diameter nozzle) on site and to the on the belt press unit (2" diameter connection). If the belt press unit furnished does not have the capability of utilizing the same water supply for the belt wash and polymer systems (i.e., via an equipped ball valve), the Contractor shall provide the services, equipment, materials, and all other incidentals required to split the potable water supply

for use by the belt wash and polymer systems. If the water supply provided is higher than the allowable PSI per the equipment manufacturer's requirements, the Contractor shall have a pressure reducing valve(s) on site for use. The Contractor will be responsible for verifying the size and type of the water supply connections at the unit and fire hydrant and the length of hose(s) needed, in addition to any other appurtenances and incidentals necessary to provide the necessary water supply and to make the proper connections. If the existing fire hydrant is utilized it shall only be operated in the presence of a Parish representative.

In addition, the Contractor will need to provide the sludge feed line/hose, flanged reducer, and other appurtenances required to transport sludge from the sludge supply pipe (6" diameter) on site to the sludge pump/intake on the belt press unit (4" cam lock connection). The Contractor will be responsible for verifying the size and type of the sludge supply connections at the unit and sludge supply pipe and the length of sludge feed line/hose needed, in addition to any other required fittings, adapters, appurtenances, and incidentals needed for the sludge supply and to make the proper connections.

The Contractor will also need to provide a discharge hose (6" dia.) for the belt press skid pump. A filtrate water disposal drain inlet is located in the vicinity of the unit set-up location and at an elevation equal to or lower than unit.

The Parish will supply the Polymer needed as a flocculant in the sludge dewatering process. The Parish, for similar sludge dewatering processes, utilized a TMB 801 Sludge Dewatering Agent by Thornton, Musso & Bellemin, Inc. If the aforementioned Polymer is not suitable for the polymer system included with the belt press unit being furnished the Contractor shall notify the Parish in advance and provide a recommended list of Polymers including the names and contact information for the polymer suppliers.

The Parish will provide the electrical cable(s) required to establish the needed 460V, 3-Phase at 60 AMP electrical service. The Parish will connect the electrical power supply cable to the main electrical feed equipment located inside the enclosed MCC facility on site near the unit set-up location. The Contractor will be responsible for providing a Louisiana licensed electrician to wire the Parish supplied electrical service to the disconnect switch located in the electrical panel on the belt press unit.

The Parish will also be responsible for arranging and paying for the required testing services associated with the sludge grab samples to be obtained during the performance testing operations.

The Parish will provide a roll-off container, or other suitable vehicle or container, to hold the processed sludge during the belt press equipment performance testing operations. The Parish will transport the processed sludge for proper disposal, unless otherwise indicated.

See Appendix A for a general site layout plan and approximate location of aforementioned initial unit staging & set-up area, water supply, sludge feed supply, electrical equipment, and filtrate water disposal drain.

The Contractor shall ensure all the necessary equipment, tools, materials, and other incidentals required are on site and available for use to make the required utility connections, and to perform the other services required, for the initial start-up, training, and performance testing operations of the mobile belt press unit with the Manufacturer's field service technician(s). The Contractor will also need to coordinate with the Parish in advance to ensure the main power electrical service connection, polymer, and a container to hold the processed sludge are in place for the equipment start-up, training, and performance testing operations. The Contractor shall be solely responsible for coordinating directly with the Manufacturer in advance to make the necessary arrangements for the Manufacturer to provide the field service technician(s) to facilitate the equipment start-up, training, and performance testing once the equipment set-up process is

completed. The Contractor shall ensure all the necessary utility connections are in place prior to the scheduled date/time of the equipment start-up, training, and performance testing operations with the Manufacturer's field technician.

The costs associated with the Manufacturer's start-up and training assistance during the equipment performance testing operations shall be included in the overall cost of the project. The Contractor shall be responsible for any additional incurred costs associated with the Manufacturer's start-up and training assistance, not covered in the original purchase price of the equipment, including all labor, travel, expenses, and other incidentals as a result of the Contractor's actions, or lack thereof.

1.04 Quality Assurance

All equipment specified under this Section shall be furnished by a single Belt Press manufacturer, who is fully experienced, reputable, and qualified in the production of the major equipment items to be furnished. The belt filter press manufacturer shall be responsible for the overall sludge dewatering system, as well as all controls for sludge dewatering equipment furnished under this Section.

Consideration will be given only to products of manufacturers who can demonstrate that their equipment fully complies with all requirements of these specifications, warranties, and Contract Documents. The Owner and/or engineering firm, at all times, are the sole judge of "Equivalent", or "Approved Alternate" and "Or Equal" designations to the specifications.

All listed and required standards and/or codes shall be met as a minimum requirement, and it shall be construed to mean the latest standard, code, specification, or tentative specification adopted and published at the time of advertisement for Bids.

No equipment or bids will be accepted unless they meet all minimum specification requirements including all items listed under "No Substitutes Allowed".

1.05 Patents

The manufacturer warrants that the use of this system and its equipment, in the process for which the system has been expressly designed, will not infringe any U.S. or foreign patents or patents pending. In the event of any claim of infringement, the manufacturer shall defend and indemnify the owner free from any liabilities associated with the use of the patented equipment or process.

The manufacturer hereby grants to the owner, in perpetuity, a paid-up license to use any inventions covered by patents or patents pending, owned, or controlled by the manufacturer in the operation of the facility being constructed in conjunction with the equipment supplied under this contract, but without the right to grant sublicenses.

1.06 Warranty

The manufacturer shall warrant, in writing, that all equipment supplied by them shall be free from defects in material and workmanship, for a minimum period of twelve (12) months from the date of approved start-up, not to exceed eighteen (18) months from the date of delivery, unless noted otherwise within the specifications. Further, an additional two-year warranty (total of three years) shall be provided for the belt press frame, press rollers, and roller coatings.

The manufacturer shall, at its own expense, furnish all labor, materials, tools, and equipment and

shall perform all work required to repair or replace work found to be defective or damaged as a result of defective work during the warranty period.

The Owner shall notify the Manufacturer of defective work by registered letter. The Manufacturer shall have 15 days from the date of notification to proceed with corrective action.

The Contractor shall furnish a copy of the manufacturer's warranty to the Owner.

The Contractor shall also provide a written guarantee to the Owner prior to final acceptance that all work furnished by him under the contract is of good quality and workmanship, free of defects, and conforms with the requirements of the project scope of work and the equipment manufacturer's requirements. If any of the work performed by the Contractor, or his subcontractors, is found to be in need of repair due to workmanship or faulty materials, the Contractor shall promptly remedy any such work after receipt of notice from the Owner or the equipment manufacturer. The Contractor shall promptly repair all defects and replace any damaged equipment or parts whether caused by defective materials, faulty installation, or on account of his actions during the equipment start-up and performance testing operations, which is not covered by the manufacturer's warranty or would result in the Manufacturer's warranty being null and void.

1.07 Conditions of Service

The sludge dewatering equipment shall be designed to adequately condition and dewater the sludge so that a dewatered sludge cake is produced meeting the required minimum performance requirements. The sludge cake shall easily discharge from the dewatering unit without blinding and that may be handled by the specified conveying equipment.

Each unit shall be designed to operate in the environment for which it is intended, continuously or intermittently, on demand, and shall perform the required dewatering operations without spillage of water or sludge beyond the nominal machine envelope.

The description of the sludge to be fed to the belt filter press (es) is as follows:

Type of sludge: Aerobic Digested Sludge

- Feed Solids, percent d.w.s. ⁽¹⁾ 1.5 - 5
- Flow Rate, g.p.m 120-180

⁽¹⁾ The Contractor shall coordinate with the Parish in advance for the Parish to drain the digester tanks until the sludge in the tanks reaches at least 1.5%-5% solids prior to the Contractor's mobilization to the site for the equipment set-up process.

1.08 Performance Requirements

Each belt filter press and ancillary equipment shall be capable of meeting the following minimum performance criteria provided the above Conditions of Service are furnished:

- Sludge throughput, lbs. dry/hour 1200-2000
- Process Rate, G.P.M. 120-220
- Belt Speed, feet/min. 5-30
- Weekly Project Size, gallons 250,000
- Cake solids, percent d.w.s. 18 – 20%

Compliance with the performance section of these specifications shall not relieve the

Manufacturer of the responsibility to provide equipment which is mechanically and structurally equal to the specified equipment.

1.09 Submittals

The Contactor shall submit two (2) hard copies and an electronic version of the below listed information in sufficient detail to demonstrate that the proposed equipment fully meets the requirements of the specifications contained herein and in accordance with the other general requirements per the Contract Documents.

Shop Drawings - Dimensional shop and erection drawings for all equipment supplied under this section along with all interconnecting components. Include sizes & thicknesses of materials, type of materials used and associated engineering calculations demonstrating all structural and roller deflection tolerances are maintain at maximum 50 PLI and 15 feet per minute operating speed with minimum safety factor of 4.

Descriptive Literature - Catalog cut sheets, technical data, performance curves and utility requirements for all equipment supplied under this Section. All information is to be provided in sufficient detail for the Engineer to assess conformance to the design criteria.

Electrical - Detailed wiring diagrams, instrumentation, and operational description of entire control system along with complete electrical bill of materials.

Operation and Maintenance Instructions - Complete operation and maintenance manuals as listed under Section 1.10 will be provided upon delivery of equipment.

1.10 Operating and Maintenance Data

The Manufacturer shall provide a total of two (2) hard copies, and an electronic version on a portable drive, with delivery of equipment a complete and comprehensive reference manual containing operating and maintenance data to enable operators and plant personnel to correctly operate, service and maintain all equipment and accessories covered by these Specification and any Drawings, if provided. The data contained in the manual shall explain and illustrate clearly and simply all principles and theory of operation, operating instructions, maintenance procedures, calibration procedures, safety precautions, trouble shooting procedures, suggested forms for required record keeping, detailed equipment drawings, electrical and instrumentation schematics.

Each copy of the manual shall be assembled in one or more loose leaf 3-ring hardbacked binders. Each binder shall be clearly labeled with an identifying cover showing project and manual title. All composition and printing shall be arranged so that punching does not obliterate any data and each section shall be clearly marked.

1.11 Manufacturer's Supervisory Services and Testing

The Manufacturer shall furnish the services only of a qualified factory field service technician for a minimum period of five days at the job-site and to be covered in two trips as listed below. Additional service, if requested, shall be available at the Manufacturers listed portal-to-portal per diem rate in effect at time of delivery of service, plus all travel and living expenses.

Installation: The equipment Manufacturer requires in writing that all installation is completed prior to arriving at the job site for inspection and start-up by the Contractor. Should the Manufacturers field technician arrive at the job site and installation is not complete, the

Manufacturer shall be allowed to bill the Contractor for the additional time and expense not covered under these Specifications. A qualified field service technician shall inspect all supplied equipment by the Manufacturer for damage and correct placement for required service and operation.

Start-up: A minimum of one day shall be used to perform equipment and system start-up testing and calibrations to be followed by performance testing.

Performance Testing: The representative sludge outlined in this specification will be supplied from a source at the project site where the performance testing will be performed. Testing shall consist of tests taken during a one-day period of operation. Duration of testing shall be a minimum of four hours of uninterrupted system operation. Grab samples shall be taken once per hour. Samples shall be tested by the Owner, or an independent laboratory, and all results shall be given directly to the Owner and copies provided to the Manufacturer and Contractor by the Owner. All samples and testing shall be those required to determine if all design and performance requirements specified are met.

If the results of the performance tests are unsatisfactory, the Manufacturer shall make the necessary modifications to comply with the requirements at no cost to the Owner or Contractor. After the modifications are made, the performance test shall be repeated at no additional cost to the Owner or Contractor, up to a maximum of three times in order to meet performance requirements. If the results of the performance test are unsatisfactory after three trials the Owner may, at its option, keep all or part of the performance bond and withholdings. Any resulting repercussions shall be dealt with between the Contractor and the Manufacturer.

Training: The Manufacturer's service technician shall train the Owners personnel on equipment operation, maintenance and troubleshooting with a minimum of four hours of operation and maintenance manual review and four hours of hands-on equipment and system operation.

1.12 Delivery, Storage & Handling

The Contractor shall arrange for the Manufacturer to deliver the complete belt press unit, with freight prepaid, to the St. John the Baptist Parish River Road Wastewater Treatment Plant located at 144 Water Plant Road, LaPlace, LA 70068. The complete unit shall consist of a trailer with all dewatering equipment securely mounted to a skid platform, which is to be mounted to the trailer during manufacturing and prior to shipment. The location of the BFP for the initial installation/set-up, start-up, training, and performance testing shall be confirmed at the time of arrival with the Owner's project representative. Refer to Appendix A for the general initial installation/set-up location at the site.

The Manufacturer shall instruct the Owner as to the equipment type and size necessary to remove the skid platform mounted belt filter press and other equipment from the provided trailer unit should the need ever arise.

1.13 Payment Terms

The Contractor shall be responsible for ordering and entering into an agreement for the purchase and delivery of the approved comprehensive belt filter press system and other equipment, features, and services specified herein to be provided by the Manufacturer. The Contractor shall be solely responsible for coordinating the payment and delivery terms with the Manufacturer. The Contractor shall promptly provide updates at each stage of the equipment purchase and delivery process to the Owner and Project Engineer.

1.14 No Substitutes Allowed

For all the equipment included in the Specifications the following items are not to be excluded from any manufacturer proposed for bidding purposes. The following list is only a guide to meeting the requirements contained in these Specifications and does not exempt the manufacturer from conforming to all of the Specifications.

- Meet National Electrical Codes and OSHA Standards.
- Any material used for direct contact with sludge or polyelectrolyte shall be wear resistant plastic, 304, 201 or 316 stainless steel or better.
- All electrical motors shall be rated for wash-down service and have a minimum operating service factor of 1.15.
- All electrical components used shall be UL listed and properly rated for the use intended.
- All liquid piping shall be schedule 80 PVC or better.
- Equipment shall be specifically designed and constructed for long life & continuous operation in humid and corrosive atmospheric environments.
- BFP frame, collection pans, curbing, all press rolls and shafts shall be of 304 stainless steel or better.
- BFP shall be twin pressure belt design, three distinct dewatering sections, both belts positively driven, individually tensioned and have automatic belt tracking.
- Belt Filter Press should have a minimum of 8 high pressure rolls constructed of 304 stainless steel, non coated.
- Belt Filter Press Frame shall have a minimum safety factor strength factor of 4 at 50 PLI belt tension
- Electrical Operator controls shall be a fully integrated Touch Screen Control Panel.
- Controls shall include a Belt Press Mounted Control Station with the following minimum functions: Start/Stop, Alarm Silence, Sludge Feed Hold, Adjustment of all System Timers, Belt, Sludge Pump and Polymer Pump Rates and Display of Alarms.
- Units of single belt or three belt design shall not be considered.

PART 2 – BELT FILTER PRESS MECHANICAL REQUIREMENTS

2.01 Equipment Scope

- A. The manufacture shall provide one totally self-contained, factory assembled 1.6-meter effective width belt filter press, designed to extract water from the type of sludge specified herein. The BFP system shall utilize the combination of chemical conditioning of the sludge, drainage of free water in the inclined gravity zone, gentle compression of the sludge in the wedge zone, and the final compression of the solids in the high pressure/shear zone, producing a sludge cake with the minimum D.W.S. percent solids as listed in these Specifications. The BFP system shall be delivered to the job site completely assembled, ready to install.
- B. The fabricated stainless-steel frame shall be designed to withstand the maximum stresses imposed on the individual members with a safety factor of 4. The deflection ratio of any structural members shall not exceed L/600 where L is the member span length.
- C. The BFP construction shall allow easy access to internal components, operational adjustments, and routine maintenance shall be possible without taking the BFP out of service. Any disassembly required for maintenance and

repair shall be possible within 3 feet of clearance on one side and 5 feet of clearance on the other side.

- D. All components of the BFP shall be engineered for long, continuous, and uninterrupted service. All metal fabricated parts and fasteners shall be of stainless steel and all welding shall be in accordance with the latest applicable codes of the American Welding Society.

2.02 Materials and Coatings

- A. All materials used in the construction of the sludge dewatering equipment shall be of the best quality and entirely suitable in every respect for the service required. All structural stainless steel shall conform to the ASTM Standard Specification for Structural Stainless Steel. All iron castings shall conform to the ASTM Standard Specifications for Gray Iron Castings and shall be of a class suitable for the purpose intended. Other materials shall conform to the ASTM Specifications where such specifications exist and the use of such materials shall be based on continuous and successful use under similar conditions of service.
- B. All electrical components shall be U.L. listed where such listings exist, and the belt press primary electrical control panel shall be marked with a serialized UL 508A label.

The following materials and coatings shall be provided for the belt filter press and related components unless specified otherwise herein:

Bearing Housings	Cast Iron, Top coated with Pitthane
Inclined Gravity and Wedge Zone Grids	304 Stainless Steel Supports, fitted with U.H.M.W. Polyethylene wiper bars
Belt Wash Housing	Stainless Steel, 11 gauge
Belt Wash Spray Tube and Nozzles	304 Stainless Steel construction with Internal Brush
Belt Wash Piping	Supply Piping Schedule 80 PVC, 1 ½ inch
Plows	304 Stainless Steel Supports, Holders and U.H.M.W. Plows
Sludge Containment Barriers	Stainless Steel, 11 gauge
Doctor Blades	U.H.M.W. Polyethylene, Dual Edged
Drain Trays	Stainless Steel, 14 gauge
Drain Tray Piping	Schedule 80 PVC
Frame	304 Stainless Steel
Hardware, Fasteners, Springs Clips, Etc.	18-8, 304 & 316 Stainless Steel

Rollers Belt Drive	DOM Steel Core, Coated with Buna N rubber, 1/4 inch minimum, 304 Stainless Steel End Plates and Shafts
Rollers (all others)	304 Stainless Steel Cores, Through/Stub Shafts and End Plates

All items listed as stainless steel shall not be coated with exception to the coated drive rolls. Zinc flame spray, epoxy painted, nylon coated and/or hot dip galvanizing of any material that is not authentic alloy stainless steel shall not be considered an acceptable substitute to this specification and shall not be allowed. Types 201 and 316 shall be considered equal and acceptable in lieu of type 304 stainless steel.

2.03 Structural Main Frame

- A. The BFP structural main frame shall be fabricated and continuously welded of stainless-steel plate, and tubing conforming to ASTM Standard Specifications for Structural Stainless Steel, into a rigid structure, adequately braced to withstand intended loads without excessive vibration or deflection during operation. Coated carbon steel is not acceptable substitution for stainless steel and shall not be allowed.
- B. Maximum load on the frame, rollers and bearings shall be based on the summation of forces applied to the frame from roller mass forces, weight of the rollers including the sludge and belts and static belt tension of 50 PLI per belt. The frame shall have a minimum design safety factor greater than 4, and frame deflection shall not exceed 0.050 inches under the above specified loading forces.
- C. The framework shall be of all welded construction. All welding shall conform to the American Welding Society Machinery and Equipment Welding Code: ANSI/AWS D14.4. Bolted construction of any main supporting frame member is not acceptable for this specification and shall not be allowed.
- D. The frame design construction shall be of an open, compact design allowing for easy maintenance, cleaning, and simplicity.

2.04 Gravity Drainage Section

- A. The belt filter press shall be furnished with a inclined gravity drainage section to accept the conditioned sludge with a sludge inlet assembly consisting of a distribution feed box and an underflow leveling weir designed to adjust the required sludge pool depth and to uniformly distribute the conditioned sludge across the entire working width of the gravity zone. The entire assembly and necessary supports shall be constructed of stainless steel.
- B. The inclined gravity section shall have a minimum 4-degree inclined slope with a minimum dewatering area of 45 square feet through which free water drainage shall occur. Side skirts constructed of 11-gauge, stainless steel shall be mounted on both sides of the belt and at the sludge feed end of the gravity section. These side skirts shall be fitted with urethane seals to prevent any leakage of sludge.

- C. The belt shall be supported and ride on top of a series of UHMW polyethylene replaceable wear strips, 2 inches wider than the belt on both sides and spaced no farther apart than 2.5 inches on center. The replaceable wear strips shall be held in place and supported by a stainless-steel support assembly.
- D. There shall be a minimum of four (4) rows of plows and two (2) adjustable sludge weirs in the inclined gravity section in order minimize polymer use, maximize hydraulic and solids loading rates, and promote more rapid drainage of free water from the sludge. Each plow shall be of UHMW polyethylene and shall be mounted and supported by a stainless steel individually adjustable plow assembly. All plow assemblies shall be equipped with lifting handles to raise and lock each row in an upright, out of service position.
- E. All filtrate shall be collected in a 14-gauge, stainless steel drain pan beneath the gravity drainage section. At no time should any gravity filtrate drip from the gravity drainage area into another area on the BFP. The drain pan shall collect the filtrate and direct it to the collection sump beneath the press through rigid schedule 80 PVC pipe, sized to handle the maximum combined flow to the press without flooding.

Vacuum assisted or horizontal gravity drainage sections that are subject to flooding, or independent gravity drainage sections that require a separate belt drive motor and tensioning device shall not be considered an acceptable substitute to this specification and shall not be allowed.

2.05 Low Pressure (Wedge) Section

- A. Each belt filter press shall be furnished with two (2) pressure sections following the gravity drainage section. The first stage of the pressure section shall be the radius increasing low pressure (wedge) zone, where the upper and lower belts gradually converge with the sludge sandwiched between the belts. In the wedge zone the sludge cake is prepared for the shear pressure zone by generating continuously increasing pressure on the sludge as it travels through the zone.
- B. The radius pressure grid wedge zone shall have a minimum active dewatering area of 34 square feet which is defined as the (belt width minus 2) inches times the length of belt in which the belts are in convergence (touching) when empty times two plus the (belt width -2") times the length of the zone where the belts are not converged. The belts shall be supported and ride on top of a series of UHMW polyethylene replaceable wear strips, 2 inches wider than the belt on both sides and spaced at 2.5 inches on center. The replaceable wear strips shall be held in place and supported by a 304 stainless steel support assembly.
- C. The belt supporting grid in the wedge zone shall be horizontal and blend into a gradual downward curve that shall be tangent to a radius, enveloping the sludge between the two belts and providing water to freely escape from the sludge, through both sides of the belt and diverted to the collection sump beneath the press with a 14-gauge, stainless steel catch tray.
- D. Any wedge sections requiring operator adjustments, containment seals, rollers or anything that will impede filtrate drainage through both sides of the belts or any other mechanical force to achieve dewatering in this section shall not be acceptable and shall not be allowed.

2.06 High Pressure (Shear) Section

- A. The second stage of the pressure section shall be the high pressure (shear) zone consisting of rollers arranged to provide a serpentine (S) shaped pattern of belt travel. Rollers shall be constructed as specified under "Rollers". The rollers shall be supported by bearings mounted on the end shafts as specified under "Bearings".
- B. No less than eight (8) high pressure rolls shall supply compression and shear reversals on the sludge sandwiched between the two tensioned belts. The first high pressure roller shall be self-bailing drainage type, a minimum of 20 inches in diameter with a minimum open area of 50% of the roller surface and be of 304 stainless steel construction.
- C. The remainder of the high-pressure rollers shall be solid 304 stainless steel surface rolls and shall vary from 14 to 10.75 to 8.625 to 6 5/8 inches in diameter with 3 progressive decreases in diameter to provide the proper combination of dewatering area, applied pressure profile and time under pressure, with a typical belt contact wrap of 180° providing a minimum pressure contact area with the rollers of 56 square feet.
- D. All drainage pans shall be constructed of 14-gauge, stainless steel and shall not be required under the shear/high pressure section, except in such cases where the belt path configuration is such that a local drain pan is required to prevent downstream re-wetting of the sludge cake.

2.07 Rollers

- A. All rollers shall be of welded 304 stainless steel construction and be warranted for a minimum of 3 years. Roller shafts shall have a minimum diameter of 2 ½ inches inside the roller and machined to a minimum diameter of 2 7/16 inches into and through the supporting bearing. All shafts and plates must be welded in place. Rollers shall be Triple stub plate design with flush welded stainless steel end caps and shafts. Bolted in place shafts are not acceptable for this specification and shall not be allowed.
- B. All rollers shall be designed to have a maximum deflection of 0.09 inches at mid span and under maximum loading conditions. Maximum loading shall be based on the maximum summation of all forces applied to the roller including, but not limited to, the forces exerted by the belt tension, and roller mass. Certified calculations shall be submitted as part of the shop drawing submittal verifying compliance.
- C. Both belt drive rolls shall have a minimum of 1/4 inch thick 65-70 durometer vulcanized Buna N rubber for positive gripping of the belts. Single belt drive roll is not acceptable for this specification and the coating of any other press roll other than drive rolls shall not be acceptable and shall not be allowed.
- D. The self-bailing drainage roll shall be fabricated to provide a minimum of 50% open drainage area on the surface of the roll and be a minimum of 20 inches in diameter. The design shall be such the drainage roll will promote the rapid removal of water from the pressure area without any spillage outside of the press frame.
- E. All bearing journals shall have a minimum fatigue safety factor of 2.0 at the

maximum loading rate of 50 PLI belt tension at a minimum rotation rate belt speed of 15 fpm. The ends of the shafts of each roller shall be equipped with support bearings as specified under "Bearings".

2.08 Bearings

- A. All rollers shall be supported by outboard mounted greaseable type, self aligning, heavy duty bearing. The bearings shall be a metal caged, double row, spherical roller bearing. The housing shall be ASTM A48 Class 30 cast iron. Seals shall be a Triple Lip design.
- B. All bearings shall have a minimum L-10 bearing life of 225,000 hours at 50 PLI and 15 fpm as calculated by using the latest ANSI/AFBMA standard. Maximum loading shall be based on the maximum summation of all forces applied to the roller including, but not limited to, the forces exerted by the belt tension and roller mass. Certified calculations shall be submitted as part of the shop drawing submittal verifying compliance.
- C. All bearing housings shall be furnished with a specially prepared surface having a factory applied urethane finish for added corrosion protection. All bearing mounting hardware shall be stainless steel.
- D. The manufacturer of the belt filter press shall warrant the complete bearing assembly, as specified herein, for a period of one year from the date of start-up, or acceptance of the equipment, whichever occurs first. The warranty is void if the bearings are not lubricated sufficiently and according to manufacturers required maintenance schedules.

2.09 Dewatering Belts

- A. Each press shall be provided with two dewatering belts which shall be seamed and fabricated of wear-resistant monofilament polyester. The mesh design shall be selected for optimum dewatering of the sludge to be processed with minimum blinding of the filter belt pores. A 316 stainless steel connecting splice shall be used for lacing of the belts and shall have minimum tensile strength of 5 times normal maximum dynamic tension to which the belts shall be subjected to.
- B. Each belt shall be a minimum of 67 inches wide, providing an effective 1.6 meter active belt width in contact with the sludge.
- C. All belts shall be designed for ease of service and shall have a minimum life of 2,000 hours of continuous operation at rate design conditions.

2.10 Belt Tensioning System

- A. Each belt shall be provided with an individually adjustable pneumatic belt tensioning system with central NEMA 4X housed control panel, capable of adjusting belt tension to a maximum of 50 PLI (lbs. linear inch) of belt width. Hydraulic systems for belt tensioning or steering shall not be acceptable for this application and shall not be allowed.
- B. Belt tension settings shall be manually controlled and shall be capable of

adjustments while the BFP is in operation.

- C. The belt tensioning shall be actuated by pneumatic bellows, attached from the frame member of sufficient schedule to support the pressure to the tension arm and roller, assuring parallel movement to the tension rollers and belts. Springs, cylinders, and rack & pinion type tensioning shall not be acceptable and shall not be allowed.
- D. All pneumatic piping shall be firmly anchored to the structural frame of the press. All lines shall be sized according to its intended use and operating pressure, with a safety factor not less than four. Multiple lines shall be protected by suitable PVC conduit or SS wire tray. There shall be no more than 36" of line exposed.
- E. The pneumatic NEMA 4X control panel shall be furnished with individual controls for both the upper and lower belt and the belt steering rolls.

2.11 Belt Tracking System

- A. The belt tracking system shall automatically and continuously align and maintain the belt position on the rollers during operation of BFP. Each belt shall be monitored by a belt tracking sensor assembly which shall continually contact the edge of the belt. The paddle shall send a signal to the pilot valve located in the pneumatic control panel, which controls the tracking bellows that moves the belt skewing roll.
- B. Automatic electro-pneumatic system shall be provided to assure proper alignment of both belts at all times. These shall operate without sharp, sudden movements of the filter belt or alignment roller. The use of hydraulics, electrical servos systems which utilizes devices that maintain alignment by sudden movement of the alignment roller or any system that has any type of sealing requirements shall not be considered acceptable to this specification.
- C. The skewing alignment roll shall be positioned by pneumatic bellows, in a transverse position to guide the belts centrally along their path. Cylinder type actuators shall not be allowed in this application.
- D. NEMA 4X proximity sensors shall be provided to detect any major misalignment in the tracking system. This shall be used to de-energize all drives and sound an alarm in case of belt over travel.

2.12 Belt Wash System

- A. The belt filter press shall be equipped with an individual upper and lower belt wash station which shall clean the full width of the belts after the sludge cake has been discharged.
- B. Each belt wash station shall consist of 14-gauge, 304 stainless housing, piping, wash bar/nozzle assembly and (4) urethane seals per wash box to prevent misting outside the wash box area. Each nozzle assembly shall be readily removable.
- C. The self-cleaning belt wash header assembly shall be 304 stainless steel and furnished with an external hand wheel that is mounted to a stainless-steel

cleaning brush, located inside the spray pipe. Turning of the hand wheel shall dislodge solid particles from each spray nozzle and flushes the solid particles into the drainage system. Nozzle spacing and spray pattern shall be such that the sprays from adjacent nozzles overlap one another at the belt surface.

- D. The belt wash system shall be suitable for use with clean plant effluent water furnished to the press belt wash stations with a minimum line pressure of 110 psig and a total water demand of both wash stations combined of 60 GPM.

2.13 Scraper (Doctor) Discharge Blades

- A. The belt filter press shall be provided with two adjustable pressure discharge scraper blades, to remove the dewatered cake sludge from the belts at the discharge end of the belt press. All mountings and supports for the discharge blades shall be 304 stainless steel.
- B. The discharge blades shall be reversible, beveled, replaceable, and shall be manufactured of UHMW polyethylene.
- C. Each discharge blade assembly shall have provisions to easily adjust the force against the press belt and shall be designed to quickly and easily be positioned away from the belts for inspection and servicing.

2.14 Belt Drive System

- A. The belt filter press shall be provided with a belt drive system consisting of a rubber covered drive roll for each belt, a common 5HP, A.C. shaft mounted gear drive motor common to both belts. The motor assembly shall be completely sealed, electrically variable speed controlled, mounted as one assembly and rated for wash down service as a minimum requirement. Chain and sprocket systems shall not be acceptable for this specification and shall not be allowed.
- B. The drive assembly shall consist of shaft-mounted, right angle, helical type gear reducer, suitable for wet environments, a minimum service factor of 1.6, an integrally mounted energy efficient motor and a panel mounted variable frequency drive for belt speed adjustment. The belt speed range shall be adjustable over a range of 5 to 30 feet per minute. The Gear motor shall be SEW Eurodrive or Equal, Worm gear reducers are not acceptable for this specification and shall not be allowed.
- C. The standard shaft mounted reducer attached to the drive roll of the belt filter press shall be secured to the drive shaft by shrink disc. Equal diameter spur gears on the opposite ends of the drive rolls shall power the second drive roll and shall synchronize drive roll operation. Reducers using set-screws or drive systems using chain drives shall not be acceptable for this Specification and shall not be allowed.
- D. Drive rollers shall be constructed as specified under "Rollers" and shall be surfaced with a minimum of 1/4 inch of Buna-N rubber coating (Shore A hardness 70-90) to permit maximum slip-free transmission of driving torque to the belt.

2.16 Electrical Control Panels (General)

- A. An electrical control panel shall be furnished with the belt filter press to control the belt press functions and those of related ancillary equipment specified herein. The panel shall be preassembled and pre-wired and shall include all controls necessary for automatic, semi-automatic and manual system operations. The panel shall be suitably wired for connection to a 480 volt, 3 phase, 60 Hertz power source.
- B. The enclosures shall be Stainless Steel with foam in place memory retaining door gasket material, maintaining a NEMA 4X (IP66) rating. All door hardware shall be stainless steel. Molded Resin or Painted carbon steel enclosures are not acceptable and shall not be allowed.
- C. Control devices mounted on the enclosures door shall be rated for and installed to maintain the NEMA 4X (IP66) rating and for safety all exposed terminals of door mounted devices shall be 24 VDC or less supplied from an isolated power supply. These components mounted on the panels shall be labeled with an engraved white tag with black letters. Letter height shall be 3/16 inch minimum.
- D. Wiring shall be accomplished in a neat and organized manner through PVC wire duct where practical and tied securely in position with nylon cable ties when not. For external connections all wiring shall be brought to a numbered terminal strip. All press mounted conduit shall be Sch 40 PVC and or nonmetallic liquid tight conduit.
- E. All electrical components shall be UL recognized and all wiring shall comply with the National Electrical Code.
- F. The main control panel and the air panel shall not be mounted on the belt press due to maintenance and cleaning interferences.
- G. The main control enclosure shall house a front mounted main disconnect, all motor starter, variable frequency controls, a programmable logic controller, interlocks, alarms, indicating lights and touch screen operator control panel required for operation of the belt filter press and all ancillary equipment described in this specification section.
- H. All equipment shall be completely checked out and hot tested prior to shipment or transport. This shall include a test of all switches, lights, relays and other components. All safety devices shall be rechecked completely for operation, function and control prior to final preparation for shipment or transport.

2.17 Pneumatic Control Panel

- A. A panel mounted gauge and regulator shall be installed for each pneumatic device requiring it. Over pressure protection shall be installed on each pneumatic device that may cause severe machine damage if over pressurized.
- B. Control valves for steering and other pneumatic operated process control valves shall be manifold mounted in panel for trouble free operation in corrosive environments.
- C. A loss of air pressure switch shall be mounted in the main air supply line, shutting

down and/or not allowing the system to run should air supply pressure not be at the minimum operating pressure settings. This low supply pressure reading shall activate an alarm condition displayed at the main operator control panel.

2.18 Main Control Panel

- A. Shall be wired 480 volts, 3 Phase, 60 Hertz unless otherwise noted. A step down transformer shall provide 120 v AC control power.
- B. Shall contain a master front mounted fused disconnect, rated 125% of full load current.
- C. Shall contain a red mushroom Emergency Stop button that provides a means of quickly stopping all equipment controlled from this panel. This shall be accomplished by tripping the MCR (Master Control Relay) to turn off control power which then has to be manually reset.
- D. Shall contain a power indicator pilot lamp. This indicates the MCR is on.
- E. Shall contain a flush green master start button. This activates the MCR.
- F. All operators and pilot lamps shall be 30.5 mm NEMA style rated at least NEMA 4 (IP66) water and oil tight. Contacts shall be self-cleaning and rated at least one million cycles.
- G. Motor control shall be provided by properly sized IEC self-protected starters, and properly protected VFD's, s per each device required.
- H. Control and monitoring shall be provided by an Allen Bradley PLC in conjunction with a 10" touch screen display and a remote multi-function operator station (mounted on BFP) and a pneumatic control panel mounted near the main control panel.
- I. The PLC shall be a Allen Bradley MicroLogix 1400 programmable logic controller, capable of controlling the required functions of the entire Belt Filter Press System and Ancillary Equipment.
- J. The PLC shall be provided with an Ethernet connection so that the manufacturer's technicians can support the owner by remote troubleshooting and PLC programming and/or owners SCADA connection.
- K. The Operator Controls and display shall be accomplished by a 10" color touch screen, mounted in the door of the main control panel. As a minimum, the following control functions shall be located on the touch screen:
 - Auto/Manual selection
 - Hand Mode Indicator
 - Auto Mode Indicator
 - System Auto Start
 - System Shut down
 - Alarm Silence
 - Alarm Fault Reset
 - Pre-wash Indicator
 - Post-wash Indicator
 - Discharge Conveyor Start
 - Discharge Conveyor Stop
 - Discharge Conveyor Running Indicator
 - Pre-wash Timer Adjustment

- Post-wash Timer Adjustment
- Feed high Timer
- Low Polymer Water
- Fault Timer
- Low Washwater Timer
- Feed Stop Fault Timer

L. All Fault and Alarms shall be annunciated by an audible horn, displayed, and logged by the touch screen. The following alarms shall be required:

- Belt Misalignment Right
- Belt Misalignment Left
- Upper Belt Breakage
- Low Belt Breakage
- Safety Cable Tripped
- Low Air Pressure
- Low Wash Water Pressure
- Low Polymer Water Pressure
- Feed High or Feed High
- fault (user settable timer)
- Belt Drive Fault
- Sludge Drive Fault
- Conveyor Overload
- Wash Water Pump Over Load
- Air compressor Over Load

2.19 Belt Press Mounted Auxiliary Operator Controls

A. A remote multi-function operator station with 6-inch monochrome HMI shall be installed on BFP near the gravity zone. This control shall show all alarms. The Belt Press Remote shall be capable of performing the following functions:

- System Start (Auto)
- System Stop (Auto)
- Belt Speed Adjustment
- Sludge Pump Speed Adjustment
- Sludge Flow in GPM (If equipped with a flow meter)
- Adjustment
- Sludge Flow in GPM (If equipped with a flow meter)
- Alarm Silence
- Sludge Fee Hold
- System Timer Adjustment
- Polymer Fee Adjustment

B. The Belt Press mounted remote unit shall be capable of operating the Belt Press and all Ancillary equipment in Automatic Mode in the event of Touch Screen Failure or Damage.

2.20 Variable Frequency Drives (VFD's)

A. The manufacturer shall deliver VFD's that meet the functional requirements associated with each motor involved with process control. The motor and VFD selection shall be based upon the operating profile of the machine, with particular attention given to the limits of motor performance when operated at less than full speed with a VFD.

B. The drive unit shall have the following protection features:

1. Over Voltage

2. Under Voltage
 3. Inverter Over Temperature
 4. Motor Overload
 5. Ground Fault
 6. Motor Locked Rotor
- C. The drive units shall be supplied with 480 VAC through a suitably sized contactor that shall de-energize the VFD's when the Emergency Stop or Safety Cable are used.
- D. The VFD's shall be Allen Bradley PowerFlex 525 or equal.
- E. The drive unit shall be UL listed.

2.21 Sequence of Operation

Automatic operations:

- A. Automatic Mode: The Belt Press Systems is to be operated in automatic mode by placing all the equipment auto/manual selector Icons in auto mode. The auto mode indicator will illuminate, and the operator can then press the system start, pushbutton.
- B. The Discharge Conveyor, Belt Press, and Wash Water Pump will now start automatically and run for a predetermined time. Belt Press pre-wash light will be illuminated during this time.
- C. The belt pressing indicator will illuminate after the belt pre-wash cycle time times out. The sludge feed pump and polymer pump will start. The operator can adjust the speeds and feeds off the system at any given time.
- D. Using the auto shut down push button will place the system in post wash mode, shutting down the sludge feed and polymer system. The post wash indicator will illuminate and clean the belts for a predetermined amount of time, then shut down the rest of the system.
- E. The Air Compressor shall run automatically when the Master Control Relay is active.
- F. Manual Mode: Place appropriate auto/manual selector switches in manual. The Manual indicator shall then illuminate. The Operator can then start and stop equipment by the appropriate start/stop buttons. This mode is primarily for clean up, maintenance, and trouble shooting.

Manual functions shall allow running equipment without interlocks for maintenance and cleaning functions.

2.22 Elevated Operator Walkway(s)

- A. The belt press manufacturer shall provide two (2) 24" wide X 60" long, Stainless Steel construction, and elevated operator walkway for viewing and adjustment of the gravity deck operation.
- B. The walkways shall be cantilevered and easily removable from the belt press frame if needed to allow service. No external legs to the floor shall be required.

- C. The walkway surface shall be slip resistant 304 SS "Grip Strut" grating.
- D. Removable Stainless Steel Handrails with toe kick plates shall be provided.
- E. Access to the walkway shall be provided by the manufacturer via Stainless Steel inclined ladder or 304SS Grip Strut surface steps.

PART 3 – ANCILLARY EQUIPMENT MECHANICAL REQUIREMENTS

3.01 Sludge Conditioning System

A. General:

1. Each belt filter press shall be provided with a sludge conditioning system, designed to efficiently mix polymer with the sludge and to adequately flocculate the sludge, for optimum dewatering.
2. The sludge conditioning system shall be mounted upstream of the press and shall consist of a flow splitting manifold, a four port vortex polymer injection ring and an in-line, non-clog, pneumatic variable orifice mixer. Polymer addition systems which utilize tanks with mixers or inject polymer directly into the sludge line are not an acceptable equal to the system specified due to the excess amounts of polymer required by these inefficient systems and shall not be allowed.
3. The sludge conditioning system shall be located after the sludge pump discharge port prior to the sludge retention manifold provided. A minimum of 15 seconds at the specified flow, shall be allowed for the polymer and sludge to form an adequate floc before entering the gravity drainage area of the belt filter press.

B. Performance:

1. The polymer and sludge shall be instantly mixed (less than 1.0 second at 60 GPM).
2. The mixing energy shall be pneumatically adjustable during operation from the pneumatic control panel regardless of the location of the mixing device.
3. The variable orifice mixer shall accommodate typical screened WWTP sludge without clogging.
4. The variable orifice mixer shall be able to open to the full line size of the system if required.

C. Construction: (Sludge conditioning system)

1. The four point polymer injection system shall include: Sch. 80 PVC flow splitting manifold, stainless steel check valves, nickel plated brass press-lock poly tube fittings, and ½" inch poly tube. The injection points shall be placed at four equal points around the diameter of the sludge pump adapter if provided with sludge pump or PVC 150 pound flange adapter if provided loose.
2. The pneumatic variable orifice mixer shall be cast iron bodied with Butyl replaceable sleeve that contacts the sludge or slurry. It shall be full port simple design with no moving mechanical parts. The body shall act as a built-in actuator

using air pressure to restrict the sludge flow and creating a variable orifice mixer. The decreased diameter inside the Butyl sleeve created by air pressure shall create a sudden increase in velocity into the slower moving sludge ahead creating ideal mixing turbulence that is completely adjustable at any time to any intensity at a moments notice by the operator.

D. Controls:

1. Controls shall be provided in the belt press pneumatic panel. They shall include: 304 stainless steel, 0 – 30 PSI liquid filled gauge, and 0 – 30 PSI precision regulator.
2. The increase of air pressure shall increase the amount of mixing.

E. Mounting:

1. Skid systems: Shall be pre-mounted and plumbed on the belt filter skid. The cast iron body of the variable orifice mixer shall be adequately supported so that it does not stress the sludge pump or PVC piping.
2. It shall be the responsibility of the contractor for the proper mounting, support, and plumbing, if the location is different than specified as above.

3.02 Sludge Retention Manifold and Piping

A. General:

1. After the polymer and sludge have been mixed in the sludge conditioning system the sludge retention manifold shall provide adequate aging time for the sludge and polymer to produce a suitable floc.

B. Performance:

1. The sludge retention manifold shall provide a minimum retention time of 30 seconds at a 115 GPM flow rate. Use of tanks to provide retention time of the sludge/polymer is not acceptable with this specification and shall not be allowed.

C. Construction:

1. All piping shall be a minimum of schedule 80 PVC, with all valves and shall be adequately designed and sized for their intended use.
2. The sludge retention manifold shall use schedule 80 PVC piping in a gentle winding "C" formation to minimize space requirements and provide the required retention time as specified.
3. The sludge retention manifold shall include cleanout plugs in every pipe loop to aid in removing any sludge that may harden and cause blockages.

D. Mounting:

1. The sludge retention manifold shall be rigidly mounted to the belt filter press skid platform and provide for the sludge feed connection to the belt filter press.
2. It shall be the responsibility of the contractor for the proper mounting, and

plumbing, if the location is different than specified as above.

3.03 Air Compressor

A. General:

1. System air shall be provided by a single stage air compressor for the purpose of supplying air to control the belt filter press.
2. The Compressor shall be a heavy-duty type Jenny, Devilbis, Ingersoll Rand, or Equal.

B. Performance:

1. Compressor shall be sized to supply all air for press operation at peak demand.

C. Compressor Construction:

1. The Compressor shall be industrial type with cast iron pump finned casting. Pump shall be splash-lubricated.
2. The Compressor shall be driven by industrial duty, 1 ½ hp A.C. induction motor sized for intended duty with a service factor of at least 1.15. Compressor and motor shall be mounted on a 30-gallon ASME rated receiver with pressure gauge and pressure regulator switch.

D. Controls:

1. The air compressor shall be controlled by the belt filter press system control panel (see belt filter press controls)
2. The compressor shall automatically run when needed while the master control relay is active.

E. Mounting:

1. The air compressor shall be pre-wired, plumbed, and mounted on rubber isolation mounts to the belt filter press skid.
2. It shall be the responsibility of the contractor for the proper mounting, and plumbing, if the location is different than specified as above.

3.04 Polymer Feed/Blend System

A. General:

1. The automatic emulsion polymer dilution/feed system shall consist of an integrated equipment package capable of automatically metering neat polymer and water into a **hydrodynamic** blending device, thus allowing the operator to adjust the dilution strength, and water rate, while activating the polymer solution. System relying on mechanically driven mixing devices shall not be acceptable for this specification and shall not be allowed.
2. At no time shall polymer be exposed to a mechanical impeller or other cause of

excessive shear. System's which are "retention time dependent" - a system which is prone to induce insufficient or excessive mixing energy depending on flow rate and the subsequent retention time in the mixing chamber, or which utilize conventional static mixers shall not be considered. All components which require periodic maintenance shall be readily accessible.

3. The system shall include the following components:

- Non-mechanical liquid polymer activation device
- Neat polymer metering pump
- Neat polymer check valve
- Dilution water inlet manifold with flow control
- Low water pressure switch and solenoid valve

B. Performance Requirements:

1. A non-mechanical **hydrodynamic** blending device specifically designed to dilute and activate emulsion, dispersion and solution type polymer with viscosities ranging from 200 to 75,000 CPS. and active polymer content of up to 50% shall be provided.
2. The liquid polymer activation mixing energy shall be staged such that it provides for high, non-damaging mixing energy over the full operating range of the system. The integral water control device, which shall also produce mixing energy by creating a pressure drop across its orifice, shall be constructed of brass and shall be designed to allow orifice replacement without disassemble of any other part of the system. The system shall be designed for use with either potable or non-potable dilution water. The type of dilution water used shall not affect the specified warranty in any way. Variable orifices constructed of plastic shall not be acceptable.
3. Provide diaphragm type neat polymer metering pump capable of viscous liquid. Pumps shall be Iwaki, LMI, Neptune or equal.

C. Polymer System Construction:

1. The polymer systems dilution components shall be provided pre-assembled in a 304SS semi-enclosed cabinet. The cabinet shall be formed with the top and bottom securely bolted in place. The cabinet shall be built to adequately support the complete polymer system.
2. The dilution water inlet assembly shall include a 1" FNPT inlet fitting, an industrial duty differential pressure switch sensing loss of dilution water flow, NEMA 4X nickel plated brass dilution water solenoid valve, and stainless-steel liquid filled dilution water inlet pressure gauge/with a 304 stainless steel diaphragm isolator. The anticipated dilution water supply pressure is 50-130 psi with a maximum of 200 PSI. Pressure switches with plastic construction and or fittings or mechanically actuated switches shall not be acceptable and shall not be allowed.
3. Dilution water shall be metered by a brass and 304 stainless steel fitted Acrylic Rotometer type flow meter/with flow control for both pre and post dilution. A neat polymer check valve specifically designed to isolate neat polymer from dilution water shall be placed after the Rotometers. The valve shall be constructed of stainless steel, PVC and Viton. The valve shall be readily accessible for cleaning. Valves which are installed inside the mixing chamber or which require mixing chamber disassembly for servicing will not be accepted.
4. The non-mechanical hydrodynamic blending device shall be of brass and or PVC. It

shall be readily accessible for cleaning and replacement if necessary.

5. The solution discharge assembly shall include 1" FNPT discharge fitting and include a stainless-steel liquid filled pressure gauge with a 304 stainless steel diaphragm isolator.

D. Polymer Pump:

1. The polymer metering pump shall be a Seepex Progressive Cavity type metering pump capable of high viscous liquid at a rate of up to 8 GPH.
2. The drive unit shall be a motor that is electronically controlled by a variable speed VFD by the belt press panel.
3. The pump shall be capable running 10% - 100% of its range without loss of performance.
4. The metering pumps suction assembly shall include a 1" x 10' tanker truck hose with fittings.

E. Controls:

1. The unit shall be integrated with the main touch screen control in the main belt press control panel. (See belt press controls)
2. On loss of dilution water flow the metering pump shall be placed on standby and shall automatically restart when flow is returned. A user settable timer will determine how long the system can operate without proper flow.

F. Mounting:

1. This system shall be pre-wired and plumb for its intended propose.
2. The polymer systems panel shall be mounted to the belt filter press skid next to the main control panel. The metering pump shall be left loose from the belt filter press skid for mounting on sight near polymer storage.
3. It shall be the responsibility of the contractor for the proper mounting, wiring and plumbing, if the location is different than specified as above.

3.05 Sludge Feed Pump(s)

A. GENERAL:

1. The pump(s) shall be of the positive displacement, rotary lobe type designed to pump primary and secondary wastewater sludge to 12% solids.
2. The pump shall be of the positive displacement, rotary lobe type as manufactured by Boerger, or approved equal.
3. Each pump(s) shall be a complete unit, direct coupled to gear reducer and motor, and mounted to a common base plate.
4. Each pump(s) shall be sized for the intent use to provide adjustable and even feeding of the sludge stream to the press. Progressive cavity pumps are not acceptable for

this specification and shall not be allowed.

5. Each pump(s) speed shall be able to be controlled from the main operator control panel as well as the press mounted multi station control panel.
6. All controls and motor protection shall be provided in the main belt press control panel.
7. Sludge feed pump(s) shall have a one-year factory warranty as standard. The Pump(s) shall be warranted to be free from defects in workmanship, design, and materials. If any part of the equipment should fail during the warranty period, it shall be replaced in the machine(s) and the unit(s) restored to service at no expense to the OWNER.

B. PERFORMANCE REQUIREMENTS:

1. Each pump provided shall be capable of supplying 7.5 HP, 200 GPM @ 15 PSI sludge flow rate. The pump shall be able to accomplish this without exceeding 350 RPM maximum speed, to ensure long operating life.
2. There shall be no significant change in vibration and noise level over the entire listed range of operating conditions of operating conditions of the pumping system.
3. A motor sizing shall provide a minimum of 25% reserve hp as evidenced by specific requirements at specified design condition on the certified performance curve.

C. PUMP CONSTRUCTION:

The following pump construction specifications pertain to pump items.

ROTARY LOBE POSITIVE DISPLACEMENT PUMP

Pump casing	In block-construction, pump casing from one piece only, made of cast iron ASTM A48, surface hardened, with protection plates at both faces. All wear parts shall be changeable through the front cover without disassembly of any pipes, motor coupling or motor. Sandwich design pump casings held together by screw connections are not acceptable and shall not be allowed.
Service	The pump shall have Maintenance in Place liners which are serviced by opening the quick release cover with O-ring sealing. Normal maintenance of the sludge pump <u>shall not require sludge piping removal.</u>
Bearings	One-side double bearings, oil bath in block casing, lateral drain plug.
Lobe-form	Triple-lobe rotors, non-wetted cast iron core coated with abrasion-resistant Buna-N.
Shafts	Not wetted by pumped fluid, but oil lubricated.
Shaft sealing	Maintenance free single acting mechanical seals with standard oil quench for both seals, identical design, changeable through pump cover.

Sealing control Oil filled intermediate chamber with lateral drain plug, for quenching and monitoring the seals and for lubricating the shaft/rotor-connections.

D. SLUDGE PUMP GEAR MOTOR:

1. The motor and gear box shall be suitable for wash down and severe duty for chemically aggressive and wet environments.
2. The motor shall be 460 volts, 3 Phase, totally enclosed fan cooled (TEFC) in accordance with NEMA MG1-1.26.2 not more than 7.5 HP.
3. The motor supplied shall be specifically designed for inverter duty to allow for the use of variable frequency drives. The motor shall be part of the gear drive supplied by the manufacturer.
4. The gearmotor shall be a parallel helical gear unit designed for continuous duty under difficult operating conditions, manufactured by SEW-Eurodrive or approved equal.
5. The helical gearing shall be manufactured in compliance with ANSI/AGMA Standard 2001-B88.
6. The gears shall be carburized to a hardness of 58 - 62 Rc for durability.
7. The gear case shall be high strength gray cast iron SAE Class 30.
8. The unit shall use a double-lip oil seal on output shaft with an additional inner seal made of Viton.

E. MOUNTING:

1. Each pump(s) shall be a complete unit, direct coupled to gear reducer and motor, and mounted to a common base plate.
2. The common base plate shall be designed to adequately support the pump and gearmotor while providing cutouts and or notches for easy access for regular routine maintenances. At no time should the gearmotor or pump need to be removed from the base plate for regular routine maintenance.
3. The common base plate shall bolted to the skid deck of the belt filter press skid system if provided loose it shall be mounted on site to an adequate foundation in a location approved by the manufacturer of the belt press.

3.06 In-Line Macerator/Sludge Grinder

A. GENERAL:

Specification for inline Macerator/Sludge Grinder complete with electric motor and all specified appurtenances. The chopper units specified shall be heavy-duty equipment, designed for 24-hour operation. Lighter solids shall be macerated and conveyed to the discharge side and heavier objects shall be collected in the easy to clean separation chamber. Unit shall be easily accessible (MIP = Maintenance In Place) through the front cover for easy control and cleaning. The reduced solids size shall prevent blockage of downstream equipment. Important: Per rotation the cutting unit shall perform 6 macerating cuts.

Acceptable macerators are Boerger Multichopper or equal.

B. DESIGN CRITERIA:

1. General Inline Design

- A. The Macerator shall be an in-line design.
- B. All fluid-wetted parts shall be replaceable without disassembly of the unit out of the pipe system.
- C. The mechanical seal shall be oil-quenched by an intermediate chamber for lubrication, cooling, and seal control.

2. Macerator Casing

- A. The unit casing shall be manufactured from ASTM A570.
- B. The suction and discharge flanges shall be 4" ANSI 150 lbs, other flange sizes shall be available.
- C. The quick release cover shall be mounted to the casing with four eye nuts for easy access and shall be opened without removal of drive or pipe system.

3. Chopper Assembly

- A. The chopper chamber shall be manufactured from ASTM A570.
- B. The stationary cutter plate shall be constructed from AISI D2 with a Rockwell hardness of 58. The cutting device shall consist of a knife head enabling three cuts per rotation at even spaced intervals of 120 degrees for improved macerating results. Each knife head shall be equipped with 3 knife blades. The blades shall be useable from two sides inside the knife head before they have to be replaced. Material of construction shall be AISI D2 with a Rockwell hardness of 58. The knife heads shall be in a fixed position during operation to the shear plate to avoid build up between knife heads and cutter plate.

4. Mechanical Seal:

- A. The inline Multichopper shall be fitted with a maintenance free mechanical seal quenched by an oil-filled intermediate chamber (Quench for lubrication and cooling).
- B. The intermediate chamber shall also indicate when a seal failure occurs and fluid penetrates through the seal. The geared motor shall be sealed to the intermediate chamber with a radial ring type seal.

5. Flanges: Suction and discharge connections shall be 4" ANSI 150-pound flanges.

6. Helical Shaft Mounting Gear Unit: The geared motor shall be mounted horizontally. Motor shall be 5 HP, 1800 RPM, 3 phase, 60 Hz, 460 Volt, TEFC, 1.15 SF, Class F Insulation.

C. CONTROLS:

1. The unit shall be controlled by the main belt press panel integrated with the main touch screen control. All necessary components to run and control the Macerator shall be provided pre-wired and tested in belt press main panel. The controls shall be as follows:
 - Start Stop buttons
 - Auto manual selector switch
 - Manual Reverse Button
 - Running indicator
 - Fault indication
2. Fault indication shall be as follows by text displayed on touch screen:
All faults shall shutdown, sludge feed pump and close pneumatic valves if provided.
 - Motor Overload
 - Grinder Jammed
3. The macerator shall operate with the belt filter system while in auto mode, it will automatically start and stop every time the sludge pump is started and stopped. This will be true even if the sludge pump is in manual.

D. MOUNTING:

1. Macerator shall be separately mounted from Belt Filter Press skid if provided.
2. It shall be the responsibility of the contractor for the proper mounting, wiring and plumbing to the belt press equipment.

3.07 Sludge Flow Meter

A. GENERAL:

1. Each sludge feed system shall provide an in-line electromagnetic flowmeter manufactured by Khrono Corporation or approved equal. Meters that use probes or paddle wheels that protrude into the sludge flow shall not be acceptable.
2. The sludge flowmeter shall be of rugged construction, rated for wet corrosive environments and sized adequately not to restrict sludge flow or sludge conditioning.

B. PERFORMANCE REQUIREMENTS:

1. The sludge flowmeter function shall not be affected by uneven flow or affected by low-frequency noise (slurry noise).
2. The flowmeters detector tube shall be highly resistant to abrasive fluid.

C. FLOWMETER CONSTRUCTION:

1. The entire unit shall be NEMA 4X (IP67) watertight rated.

D. CONTROLS:

1. The unit shall be integrated with the main touch screen control in the main belt press control panel. The controls shall be as follows:
 - Master non reset-able gallon counter
 - Reset able gallon counter

- GPM indicator
 - Fault indication
2. Fault indication shall be as follows by light indicator displayed on touch screen:
 - Pipe Empty Alarm

E. MOUNTING:

1. The sludge flowmeter shall be wafer type, for mounting between two ANSI class 150 pound flanges.
2. The sludge flowmeter shall be mounted and pre-wired to Belt Filter Press main skid if provided.
3. It shall be the responsibility of the contractor for the proper mounting, wiring and plumbing, if the location is different than specified as above.

3.08 Washwater Booster Pump(s)

A. GENERAL:

1. Each wash water booster pump shall be close coupled, single-stage, centrifugal pump manufactured by Goulds, Deming, Burks or approved equal.
2. The wash water booster pump shall be of rugged construction, rated for wet corrosive environments and sized adequately to keep the belts clean.

B. PERFORMANCE REQUIREMENTS:

1. Shall be able to boost Plant effluent water supplied at _____ psi at 65 GPM to 110 psi min to the belt wash stations.

C. PUMPS CONSTRUCTION:

1. The pumps head casing shall be ductile iron base coat with epoxy and finish coat of urethane.
2. The Impeller shall be bronze with bronze wear ring and internally hydraulically balanced for improved bearing life.
3. The mechanical seal shall be constructed with a carbon ceramic.
4. The entire assemble shall be bolted on a JM shaft, close coupled, AC induction motor, 480 v, 60 Hz, 3 phase, TEFC with a minimum service factor of 1.15.

D. CONTROLS:

The unit shall be integrated with the main touch screen control in the main belt press control panel. (See belt press controls.)

E. MOUNTING:

1. The pump and motor assembly shall be mounted to an adapter plate that properly supports the motor and pump head and allows the use of rubber isolation mounts when mounted directly to the belt filter skid. The pump shall be pre-plumbed and

wired for its intended use.

2. It shall be the responsibility of the Contractor for the proper mounting, wiring, and plumbing, if the location is different than specified as above.

3.09 Skid Assembly

A. GENERAL:

1. All items listed in specifications (except optional sludge macerator if specified) shall be mounted, plumbed and pre-wired on one common skid.
2. The skid shall contain one main filtrate sump, manufactured of 12-gauge, stainless steel, mounting area for all components and walkways allowing the operator access to both sides of the belt filter press.
3. The skid shall incorporate two (2) 24" W X 60" L removable operator walkways that shall allow the operator to access the belt press mounted upper walkways via inclined ladder type steps. These shall be easily removable for shipment or transport. The complete skid assembly shall not exceed the 102" legal road width with the walkways removed and/or folded up for shipment or transport. Removable stainless-steel handrails shall be provided by the manufacturer for these walkways.
4. It shall be the responsibility of the contractor to provide steps to access the skid operating platform.

B. PERFORMANCE REQUIREMENTS:

1. The skid when fully assembled with all specified ancillary equipment, plumbing, and wiring shall allow the operator to safely operate the system from the supplied skid platform.
2. The structural frame shall allow for lifting of the fully assembled system without causing any deflections that may damage or deter the operation of the equipment and components mounted to the skid frame.

C. SKID CONSTRUCTION:

1. The skid shall be designed with structural members conforming to standard specifications for structural steel, ASTM A36. The maximum deflection of each structural member shall not exceed $L/450$, where L is the span length.
2. After fabrication, the structural steel frame shall be sandblasted according to SSPC SP-10 standards to a near white finish, epoxy coated with a minimum of 8 mils and top coated with a minimum of 4 mils with Pittane for UV protection.

D. CONTROLS:

1. Belt filter press controls shall be mounted to the skid frame.

E. MOUNTING:

1. The skid shall be provided with foot pads for a variety of mounting surfaces like

designated concrete piers, steel, or stainless supports, as well as for trailer mounting.

2. The skid assembly shall be factory mounted to a trailer and be delivered as a complete trailer mounted skid system BFP unit ready for use once set-up at the designated location.

3.10 Folding Conveyor

A. GENERAL:

1. A sludge cake conveyor shall be provided to convey the cake away from the belt filter press.
2. The conveyor shall be a V-trough type, having an overall belt width of 36 inches and an overall length of 21' feet.
3. The conveyor shall be parallel to the skid mounting with no more than 12-foot discharge height and a 7.5-foot discharge distance beyond the rear of the trailer
4. The conveyor shall have an automatic active tracking system to constantly align the belt.
5. The conveyor shall be able to be set up by one person without the aid of cranes or other heavy equipment.

B. PERFORMANCE REQUIREMENTS:

1. The conveyor shall be capable of keeping up with the peak output of the belt filter press system without overloading the belt.

C. CONVEYOR CONSTRUCTION:

1. The frame shall be fabricated from stainless steel 11 gage plate and structural shapes, providing rigid support for all components and sludge loadings.
2. All conveyor bearings shall be cast pillow blocks and (or) flange.
3. The conveyor shall have a 14-gage stainless steel collection hopper to collect sludge cake being discharged from the belt filter press.
4. The belt shall be properly supported on both sides and have a stainless-steel hinged splice for connection.
5. The belt conveyor drive shall be a shaft mounted helical reducer with a 1.5 HP TEFC motor which shall have a minimum service factor of 1.15.

D. CONVEYOR STAND:

1. The conveyor support leg stand shall be fabricated from structural shapes, providing rigid support for the conveyor and folding mechanism.
2. The stand shall be designed with structural members conforming to standard specifications for structural steel, ASTM A36. The maximum deflection of each structural member shall not exceed $L/450$, where L is the span length.

3. After fabrication, the structural steel frame shall be sandblasted according to SSPC SP-10 standards to a near white finish, epoxy coated with a minimum of 8 mils and top coated with a minimum of 4 mils with Pitthane for UV protection.

E. CONTROLS:

1. Shall be provided by the belt filter press system main touch screen control. (See Belt Filter Press Controls.)
2. These controls shall be start and stop.

F. MOUNTING:

1. The conveyor shall be mounted to the trailer unit for rear discharge.
2. It shall be the responsibility of the contractor for the proper mounting if the location is different than specified as above.

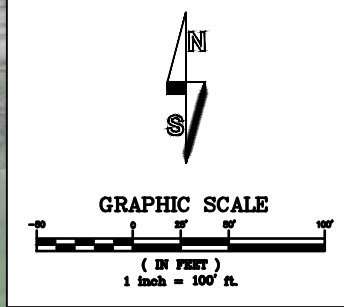
3.11 Trailer for Skid Mount Unit

- A. The belt press manufacturer shall furnish the trailer when fully assembled with all listed ancillary equipment, plumbing, and wiring ready and tested for operation. The length and width shall be adequate to mount all equipment and utility connections within the trailer itself, with adequate room for servicing and operating all equipment. The trailer shall be a minimum of 48' in length, 102" in total width, max height under 13 feet 6 in (while folded), single drop deck low profile trailer bed over axle design, with hinged rear DOT rated bumper for conveyor storage, with a minimum of 26,000 lb GVWR rating.
- B. All items listed in specifications shall be mounted, plumbed, and wired on one common trailer. The trailer shall be designed with structural members conforming to standard specifications for structural steel, ASTM A36. The maximum deflection of each structural member shall not exceed L/450, where L is the span length.
- C. After fabrication, the structural steel frame shall be acid washed with rust inhibitor, primed with 2.5 Mils, then coated with a minimum of 8 mils polyurethane black.
- D. The trailer shall be custom manufactured to adequately support the belt press skid system and auxiliary equipment.
- E. Flooring other than where the press skid is located shall be of a minimum 3/16" carbon steel plate and shall be coated with 16 mils. of non-skid rubberized coating.
- F. The axles shall be tandem 20.5k axles with outboard 10-bolt hub and drum, 22.5 x 8.25 hub piloted white wheels. 255/70R 22.5 16-ply tires and ABS air brake system installed on both axles.
- G. Front jacks shall be dual two-speed adjustable hand operated type, rate for a minimum of 20,000 pounds lifting capacity.
- H. Rear mounted leveling jacks shall be independently adjustable hand operated type, rate for a minimum of 12,500 pounds lifting capacity each. 20,000 static load.
- I. The trailer shall have sealed wiring harness with LED lighting.

APPENDIX A

General Site Layout Plan

**ST. JOHN THE BAPTIST PARISH
RIVER ROAD WASTEWATER TREATMENT PLANT
144 WATER PLANT ROAD
LAPLACE, LA 70068
MOBILE BELT PRESS**



DWG PATH: K:\102\St. John\102-1667 Hurricane Ida DA and AE Services\ST JOHN PARISH IDA RECOVERY PROGRAM\Design Projects\River Road WWTP Temporary Belt Press\Unused_Bld Package\DWG
 DWG NAME: RR WWTP_TEMP BELT PRESS
 PLOT DATE: Tuesday, November 14, 2023 @ 9:52am

PROJECT NO. 102-1667		DESIGNED BY: BL	DRAWN BY: MP	PROJECT MGR: BL	BY:
DATE NOVEMBER 2023		CHECKED BY: RD	CHECKED BY: BL	APPROVED BY: RD	DESCRIPTION
SCALE					DATE
SHEET NO. APPENDIX A					REVISION

ST. JOHN THE BAPTIST PARISH
 RIVER ROAD WASTEWATER TREATMENT PLANT
 MOBILE BELT PRESS



527 W. ESPLANADE AVE., STE. 200 - KENNER, LA, 70065 - PH. (504) 468-6129
 PROJECT MGR: BL
 APPROVED BY: RD