
**CONSTRUCTION SPECIFICATIONS
AND
CONTRACT DOCUMENTS**

FOR

**LIONS WATER TREATMENT PLANT
PUMP STATION INTAKE PROJECT**

**ST. JOHN THE BAPTIST PARISH DEPARTMENT OF UTILITIES
DWRLF Project No. 10095003-01 Contract 2 Lions Intake**

JANUARY, 2017

Prepared By:

**Burk-Kleinpeter, Inc.
Engineers, Architects, Planners, Environmental Scientists
4176 Canal St., New Orleans , Louisiana**

BKI NO.14.006



SET NO. _____

**Lions Water Treatment Plant
Pump Station Intake Project**

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**ADVERTISEMENT FOR BIDS
ST. JOHN THE BAPTIST PARISH GOVERNMENT
UTILITIES DEPARTMENT
STATE OF LOUISIANA
PROJECT NO. DWRLF – 1095003-01 CONTRACT 2 LIONS INTAKE**

Sealed bids will be received by the **Parish of St. John the Baptist Council** (herein referred to as “Owner”) for the construction of the project described as follows:

**St. John the Baptist Parish Government
Drinking Water Revolving Loan Fund
Lions Water Treatment Plant Pump Station Intake Project
Project No. DWRLF – 1095003-01 Contract 2 Lions Intake**

Bids shall be addressed to the St. John the Baptist Parish Council and delivered to the receptionist at the Parish President’s Office in the Percy Hebert Building located at 1801 W. Airline Hwy., LaPlace LA 70068 not later than **2:45 p.m., on the 23rd day of May, 2017**. Bid envelope shall be marked:

“Sealed bid - Lions Water Treatment Plant Pump Station Intake Project”

Any bid received after the specified time and date will not be considered. The sealed bids will be publicly opened and read aloud at 3:00 o’clock P.M. that same date in the **St. John the Baptist, Joel S. McTopy Council Chambers**, 1801 W. Airline Hwy., LaPlace LA 70068.

The Bidding Documents (including construction drawings and specifications) may be examined at the Owner’s office located at 1801 W. Airline Hwy., LaPlace LA 70068 and may be secured from the office of **Burk-Kleinpeter, Inc. 4176 Canal Street, New Orleans, LA 70119 (504) 486-5901**, by only licensed contractors upon payment of \$75.00 per set. Bidding documents will be available electronically at **Central Bidding, www.centralbidding.com**. Bid documents are also available for viewing on www.sjbparish.com.

The Owner reserves the right to accept or reject any and all bids and to waive any irregularities or informalities incidental thereto, and to accept any bid, which the Owner feels, serves their best interest. Such action will be in accordance with Title 38 of the Louisiana Revised Statutes.

Bids shall be received from Bidders only on the Bid Form in the Bidding Documents which is issued to him in his name, as provided in the Louisiana Revised Statutes R.S. 37:2162(b). A single bid shall be submitted for all portions of the Contract Work.

Bids must be submitted on the proper form. Each bid shall be enclosed in a sealed envelope showing the name, address, and license number of the bidder and clearly marked **“Sealed bid - Lions Water Treatment Plant Pump Station Intake Project”**. Vendors may submit electronic bids with no fee for submission by using **Central Bidding, www.centralbidding.com**.

The Owner requires that each bidder attach to his bid a certified check, cashier’s check, or bid bond equivalent to 5% of the total bid as evidence of good faith of the bidder. Sureties used for obtaining bonds must appear as acceptable on the U. S. Department of the Treasury’ Circular 570.

All bidders must show proof that he/she is licensed in the State of Louisiana under the classification of "Municipal and Public Works Construction". **Contractor's license number must appear on the face of the sealed envelope containing the bid.**

St. John the Baptist Parish Council, being a government agency, is exempt from all sales tax. The vendor awarded the contract will be provided documentation to support their tax free purchases for this project. Therefore, **the amount you bid should contain no sales tax.**

The successful bidder will be required to furnish a Performance and Payment Bond written by a company licensed to do business in Louisiana, in the amount equal to one hundred percent (100%) of the contract price. Certificates of Insurance will also be required as specified in the bid package.

No bidder may withdraw his/her bid within forty-five (45) days after the actual date of the opening thereof except as provided by law.

The Contractor shall begin mobilization and procurement of necessary materials within ten (10) working days of the receipt of the Notice to Proceed.

Any person with disabilities requiring Special Accommodation must contact **The St. John the Baptist Parish Council** Office at (985) 652-9569 no later than seven (7) days prior to bid opening. Participation by minority and female owned business, as well as businesses located in this Parish is encouraged.

The Attention of Bidders is called particularly to the requirements for conditions of employment to be observed and minimum wage rates to be paid under the Contract, Section 3, Segregated Facilities, Section 109, Executive Order 11246, and all applicable laws and regulations of the Federal government and State of Louisiana and bonding and insurance requirements.

Equal Opportunity in Employment: All qualified applicants will receive consideration for employment without regard for race, color, religion, sex, or national origin. Bidders on this work will be required to comply with the President's Executive Order No. 11246, as amended. The requirements for bidders and contractors under this order are explained in the specifications.

If the contract is to be awarded, it will be awarded to the lowest, responsive, and responsible Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.

Bidders are invited to attend a Pre-bid meeting to be held at 1801 W. Airline Hwy., LaPlace LA 70068 on the 3rd day of May, 2017 at 2:00 P.M. Attendance is not mandatory. All questions should be directed to Jean Stewart, Director of Purchasing, 985-359-1037 or email: j.stewart@stjohn-la.gov.

ST. JOHN THE BAPTIST PARISH COUNCIL

For Publication on: April 12, 2017
 April 19, 2017
 April 26, 2017

INFORMATION FOR BIDDERS

1. **Receipt and Opening of Bids:** The **Parish of St. John the Baptist** (herein called the "Owner"), invites bids on the form attached hereto. All blanks must be appropriately filled in. Bids will be received by the Owner at the office of **St. John the Baptist Parish Purchasing & Procurement Department, reception desk** until 2:45 p.m. CST, the 23rd day of May, 2017, and then publicly opened and read aloud at **St. John the Baptist Joel S. McTopy Council Chambers**. The envelopes containing the bids must be sealed, addressed to **St. John the Baptist Parish Purchasing & Procurement Department** and clearly marked **"Sealed bid Lions Water Treatment Plant Pump Station Intake Project."**

The Owner may reject any and all bids for just cause; such actions will be in accordance with Title 38 of the Louisiana Revised Statutes. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within forty-five (45) calendar days after the actual date of the opening thereof except as provided by law.

2. **Preparation of Bid:** 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.

Each bid must be submitted in a sealed envelope bearing on the outside the bidder's name and address, and clearly marked "Lions Water Treatment Plant Pump Station Intake Project." If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form.

Vendors may submit electronic bids with no fee for submission by using Central Bidding, www.centralbidding.com. Vendors may contact St. John the Baptist Parish Purchasing Department for further information regarding Central Bidding.

3. **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.
4. **Method of Bidding:** The Owner invites the following bid(s):
Lions Water Treatment Plant Pump Station Intake Project.
7. **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.

8. 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.
9. Bid Security: Each bid must be accompanied by cashier's check, 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. Such cashier's check, 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 60 calendar 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.
10. 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.
11. Time of Completion and Liquidated Damages: Bidder must agree to fully complete the project within 270 consecutive calendar days. Thereafter Bidder must agree to pay as liquidated damages the sum of \$500 for each consecutive calendar day thereafter until acceptance as hereinafter provided.
12. 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.
13. Addenda and Interpretations: No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.

Every request for such interpretation should be in writing addressed to Burk-Kleinpeter, Inc., at 4176 Canal St., New Orleans LA 70119 and to be given

consideration must be received at least five (7) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be mailed by certified mail with return receipt requested to all prospective bidders (at the respective addresses furnished for such purposes), not later than three (3) days prior to the date fixed for the opening of bids.

Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

14. 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 amount (100-percent) of the contract price for the full period of the contract and a payment bond in the amount (100-percent) of the contract price for the full period of the contract.

15. 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.
16. Laws and Regulations: The bidder's attention is directed to the fact that 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.
17. Method of Award: The contract, if awarded, will be awarded to the lowest responsible bidder.
18. Obligation of Bidder: At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation with respect to his bid.

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LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: St. John the Baptist Parish
1801 W. Airline Highway
LaPlace, Louisiana 70068
(Owner to provide name and address of owner)

BID FOR: Lions Water Treatment Plant Pump Station Intake Project
DWRLF Proj. No.: 1095003-01 Contract 2 Lions Intake
(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: **Burk-Kleinpeter, Inc., 4176 Canal St., New Orleans, LA 70119** and dated: March, 2017
(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:
_____ N/A _____ Dollars (\$ _____)

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

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

** If someone other than a corporate officer signs for the Bidder/Contractor, a copy of a corporate resolution or other signature authorization shall be required for submission of bid. Failure to include a copy of the appropriate signature authorization, if required, may result in the rejection of the bid unless bidder has complied with 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 RS 38:2218.A is attached to and made a part of this bid.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

UNIT PRICE FORM

TO: St. John the Baptist Parish
 1801 W. Airline Highway
 LaPlace, Louisiana 70068
 (Owner to provide name and address of owner)

**BID FOR: Lions Water Treatment Plant Pump Station
 Intake Project**
 DWRLF Proj. No.: 1095003-01 Contract 2 Lions Intake
 (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 only in figures.

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Mobilization				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
001	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Sheet Piling 20' deep excavation, 27psf, drive, extract and salvage				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
002	2,400	Sq. Ft.		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Excavation				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
003	110	Cu. Yds.		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Directionally Drill and Install 16" HDPE (DIPS) DR11 Piping				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
004	230	Lin. Ft.		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Install 16" Ductile Iron Pipe In Trench				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
005	16	Lin. Ft.		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Ductile Iron Pipe Fittings				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
006	1	L.S.		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Provide and Install Intake Screen				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
007	1	L.S.		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Timber Support Piling			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
008	200	Vert. Lin. Ft.		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Mechanical Demolition			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
009	1	L.S.		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Pressure Wash Interior Pump Station and Coat Existing Structural Steel			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
010	1	L.S.		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Provide and Install new Dry-Pit Submersible Pumps			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
011	2	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Provide and Install new Suction and Discharge Piping and Associated Fitting within the Pump Station			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
012	1	L.S.		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Provide and Install 16" Gate Valve with Valve Box and Slab			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
013	1	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Provide and Install 10" Gate Valve on Interior of Pump Station			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
014	2	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Provide and Install 8" Swing Check Valve on Interior of Pump Station			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
015	2	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Provide and Install 8" Knife Gate Valve on Interior of Pump Station			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
016	2	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Provide and Install 10" Gate Valve with Valve Box			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
017	1	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Provide and Install Schd. 40, 316 Stainless Steel Air Piping, Valves and Connections			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
018	1	L.S.		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Provide and Install Schd. 40 ,316 Stainless Steel Potassium Permanganate Piping			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
019	1	L.S.		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Remove Existing Sump Pump and Provide and Install New Replacement Sump Pumps			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
020	1	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Provide and Install 10" Emergency Pump Connection			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
021	1	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Bank Restoration and Seeding			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
022	1	L.S.		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Electrical Feeder Relocations			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
023	1	L.S.		

**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.**

BID BOND FORMS

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____ as Principal, and _____
_____, as Surety, are hereby held and firmly bound into _____
_____, as owner in the penal sum of _____ for which, well and
truly to be made, hereby jointly and severally bind ourselves, our heirs, executives, administrators, 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 the Lions Water Treatment Plant Pump Station Intake Project.

NOW, THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,

- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form
of Contract attached hereto (properly completed in accordance with said Bid) and shall
furnish a bond for his/her faithful performance of said contract, and for the payment of all
persons performing labor or furnishing materials in connection therewith, and shall in all
other respects perform the agreement created by the acceptance of said Bid,

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

The Surety, for value received, hereby stipulates and agrees, that the obligations of said Surety and
its bond shall be in no way impaired or affected by any extension of 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 these presents to be
signed by their proper officers, the day and year first set forth herein above.

Principal: _____ (L.S.)

Surety: _____

SEAL

By: _____

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within bond; that _____, who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his/her signature, and his/her signature thereto is genuine; and that said bond was duly signed, sealed, and attested to, for, and on behalf of said corporation by authority of this governing body.

Signature: _____

Title: _____

(Corporate Seal)

CERTIFICATE AS TO SURETY

I, _____, certify that I am the _____ (Title) _____ of the Surety who signed the bond. I certify that we are licensed to do business in the State of Louisiana and are currently recognized by the U. S. Department of the Treasury as acceptable sureties.

Signature: _____

Title: _____

Power of Attorney for person signing for surety company must be attached to bond.

CONSTRUCTION PERFORMANCE BOND

KNOW ALL MEN 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 _____ (Name of Owner) _____ (Address of Owner) hereinafter called Owner, in the penal sum of _____ Dollars, \$(_____)

in lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, 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:

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 one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, 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 the Work to be performed thereunder or the Specifications accompanying the same shall in any wise 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 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 _____ (Number) counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20_____.

ATTEST:

(PRINCIPAL) SECRETARY

(SEAL)

WITNESS AS TO PRINCIPAL

ATTEST:

PRINCIPAL (BIDDER)

By: _____
AUTHORIZED OFFICER-OWNER-PARTNER

ADDRESS

SURETY

By: _____ (SEAL)
ATTORNEY-IN-FACT

WITNESS AS TO SURETY

TYPED OR PRINTED NAME

COUNTERSIGNATURE

I certify that I am, as of the date of this Bond, contracted with the surety company or bond issuer as an agent of the company or issuer as a licensed agent in the State of Louisiana in good standing with the Louisiana Insurance Commission.

By: _____

TYPED OR PRINTED NAME

AGENT LICENSE NUMBER

NAME OF AGENCY

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.

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within bond; that _____ who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his/her signature, and his/her signature thereto is genuine; and that said bond was duly signed, sealed, and attested to on behalf of said corporation by authority of this governing body.

Signature : _____

Title: _____
(Corporate Seal)

CERTIFICATE AS TO SURETY

I, _____, certify that I am the _____ (Title) _____ of the Surety who signed the bond. I certify that we are licensed to do business in the State of Louisiana and are currently recognized by the U. S. Department of the Treasury as acceptable sureties.

Signature: _____

Title: _____

Power of Attorney for person signing for surety company must be attached to bond.

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CONSTRUCTION PAYMENT BOND

KNOW ALL MEN 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 _____ (Name of Owner)
_____ (Address of Owner) hereinafter
called Owner, in the penal sum of _____ Dollars, \$(_____) in lawful
money of the United States for the payment of which sum well and truly to be made, we bind ourselves,
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:

LIONS WATER TREATMENT PLANT PUMP STATION INTAKE PROJECT

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, Subcontractors, and
corporations furnishing materials for or performing labor in the prosecution of the Work provided for in
such contract, and any authorized extension or modification thereof, including all amounts due for
materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or
used in connection with the construction of such Work, and all insurance premiums on said Work, and for
all labor, performed in such Work whether by Subcontractor or otherwise, then this obligation shall be
void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change,
extension of time, 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 wise 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 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 _____ (Number) counterparts, each one of
which shall be deemed an original, this the _____ day of _____,
20_____.

ATTEST:

(PRINCIPAL) SECRETARY

(SEAL)

WITNESS AS TO PRINCIPAL

ATTEST:

WITNESS AS TO SURETY

PRINCIPAL (BIDDER)

By:

AUTHORIZED OFFICER-OWNER-PARTNER

ADDRESS

SURETY

By: _____ (SEAL)

ATTORNEY-IN-FACT

TYPED OR PRINTED NAME

COUNTERSIGNATURE

I certify that I am, as of the date of this Bond, contracted with the surety company or bond issuer as an agent of the company or issuer as a licensed agent in the State of Louisiana in good standing with the Louisiana Insurance Commission.

By:

TYPED OR PRINTED NAME

AGENT LICENSE NUMBER

NAME OF AGENCY

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.

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within bond; that _____ who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his/her signature, and his/her signature thereto is genuine; and that said bond was duly signed, sealed, and attested to on behalf of said corporation by authority of this governing body.

Signature : _____

Title: _____
(Corporate Seal)

CERTIFICATE AS TO SURETY

I, _____, certify that I am the _____ (Title) _____ of the Surety who signed the bond. I certify that we are licensed to do business in the State of Louisiana and are currently recognized by the U. S. Department of the Treasury as acceptable sureties.

Signature: _____

Title: _____

Power of Attorney for person signing for surety company must be attached to bond.

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CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF _____, INCORPORATED.

AT THE MEETING OF DIRECTORS OF _____,
INCORPORATED, DULY NOTICED AND HELD ON _____, 20____,
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT WAS:

RESOLVED. THAT _____, BE AND IS HEREBY APPOINTED,
CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-FACT OF THE CORPORATION WITH
FULL POWER AND AUTHORITY TO ACT ON BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS,
BIDDING, CONCERNS AND TRANSACTIONS WITH THE PARISH OF ST. JOHN OR ANY OF ITS
AGENCIES, DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO THE
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES, CONTRACTS AND
ACTS AND TO RECEIVE AND RECEIPT THEREFOR ALL PURCHASE ORDERS AND NOTICES ISSUED
PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS CORPORATION HEREBY
RATIFYING, APPROVING, CONFIRMING AND ACCEPTING EACH AND EVERY SUCH ACT PERFORMED
BY SAID AGENT AND ATTORNEY-IN-FACT.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE AND CORRECT COPY OF
AN EXCERPT OF THE MINUTES OF THE ABOVE DATED MEETING OF THE
BOARD OF DIRECTORS OF SAID CORPORATION, AND THE SAME HAS NOT
BE REVOKED OR RESCINDED.

SECRETARY-TREASURER

DATE

THIS PAGE INTENTIONALLY LEFT BLANK

HOLD HARMLESS AGREEMENT

KNOW ALL MEN BY THESE PRESENTS: that _____(Name of Contractor) shall defend, indemnify and hold harmless St. John the Baptist Parish from and against any and all claims, damages, losses, and expenses including attorneys' fees arising out of or resulting from the performance of the work (or lack thereof) for which permission was granted for the Lions Water Treatment Plant Pump Station Intake project provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease, death, or damage to property of whatsoever nature, including the loss of use resulting therefrom caused in whole or in part by any negligent or willful acts or omissions of _____ (Name of Contractor), its subcontractors, or anyone employed by any of them, or anyone working for any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by the negligence and/or the strict liability of the Lake Borgne Basin Levee District, its agents, and/or employees.

NOTE:

THE AGREEMENT MUST BE SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE COMPANY AND MUST BE NOTORIZED. PROOF OF AUTHORIZATION MUST BE PROVIDED, i.e. CORPORATE RESOLUTION.

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Employment Status Verification
AFFIDAVIT

STATE OF LOUISIANA PARISH OF St. John the Baptist

BEFORE ME, the undersigned authority, personally came and appeared,

_____, (Affiant) who after being duly sworn, deposed and said that

he/she is the fully authorized _____ of _____

(Entity), the party who submitted a Proposal/Contract/Bid/RFP/SOQ No. _____

to St. John the Baptist Parish. (Choose one of the following):

_____ Affiant further said:

- (1) Entity is registered and participates in a status verification system to verify that all employees in the State of Louisiana are legal citizens of the United States or are legal aliens.
- (2) Entity shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the State of Louisiana.
- (3) Entity shall require all subcontractors to submit to the Entity a sworn affidavit verifying compliance with statements (1) and (2).

_____ Affiant further said that neither Entity nor subcontractors of Entity have any employees in the State of Louisiana.

Signature of Affiant

SWORN TO AND SUBSCRIBED BEFORE
ME ON THIS _____ DAY
OF _____, 2017

NOTARY PUBLIC

Updated: 2117/2012
LA-RS § 38:2212.10(201 1)

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AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 20____, by and between St. John the Baptist Parish, LA,
(Corporate Name of Owner)

herein called "Owner," acting herein through its _____

, and
(Title of Authorized Official)

_____ a corporation, a partnership,
an

individual doing business as _____
(Strike Out Inapplicable Terms)

of _____, Parish of _____, and State of _____

hereinafter 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:

Provide and install new 16" raw water intake with support piles, intake screen, and 16" steel location pile. Remove two existing pumps and provide and install two new replacement pumps including all associated piping, valves, controls and appurtenances. Provide and install new 1" compressed air piping and chemical feed piping as shown on the drawings. Provide and install new electrical feed from the treatment plant, over the existing levee and along the existing bridge to the location of the existing power connection at the pump station.

hereinafter called the project, for the sum of _____ Dollars (\$_____) and all extra work in connection therewith, under the terms as stated in the General and Special Conditions of the contract; 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 General conditions and Supplemental General Conditions and Special Conditions _____ prints, and other drawings and printed or written explanatory matter thereof, the specifications and contract documents therefore as prepared by _____, herein entitled the Architect/ Engineer, and as enumerated in Paragraph 1 of the Supplemental

General Conditions, all of which are made a part hereof and collectively evidence and constitute the contract.

The Contractor hereby agrees to commence work under this contract on or before a date to be specified in a written "Notice to Proceed" of the Owner to fully complete the project within **270** consecutive calendar days thereafter. The Contractor further agrees to pay, as Liquidated Damages, the sum of \$_____ for each consecutive calendar day thereafter as hereinafter provided for herein.

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the contract, subject to additions and deductions, as provided in "Payment to Contractor," of the General Conditions.

IN WITNESS WHEREOF, the parties to these present have executed this contract in six (6) counterparts, each of which shall be deemed an original, in the year and day first above mentioned.

(Seal)
ATTEST:

(Owner)

(Secretary) By _____

(Witness) _____ (Title)

(Seal) _____
(Contractor)

(Secretary) By _____

(Witness) _____ (Title)

(Address and Zip Code)

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

NOTICE OF AWARD

Date _____, 20__

TO: _____

PROJECT NAME:

PROJECT NO:

Gentlemen:

You are hereby notified that your Bid dated _____, for the above project has been considered. You are the apparent successful Bidder and will be awarded a contract once all the required documents have been received, successfully voted by the St. John the Baptist Parish Council, and executed by the St John the Baptist Parish President.

The Contract Price of this award is _____ Dollars (\$_____).

Deliver all documents to:

Engineer

Deliver the following documents by _____, 20__

1. Six (6) original agreement forms 00600 signed and all blanks properly completed. **Do not date the forms**; this will be accomplished upon execution of the Contract by the OWNER. Contract price must agree with amount on bid form.

Deliver the following documents by _____, 20__

2. Six (6) original corporate resolutions 00530 signed and dated if the successful bidder is a corporation. A resolution on company letterhead is also acceptable if wording is similar to that in form 00530.
3. Six (6) original construction performance bond form 00510 completed, signed, dated, and sealed.
4. Six (6) original construction payment bond form 00520 completed, signed, dated, and sealed.
5. Six (6) original power of attorney for performance/payment bond surety.
6. Six (6) original certificates of insurance. Computer generated signature acceptable. The Certificate must name the St. John the Baptist Parish as an additional insured on all general liability policies and the standard cancellation clause must read as follows:

“Should any of the above described policies be canceled or changed by restricted amendment before the expiration date thereof, the issuing Company will give thirty (30) days written notice to the below named certificate holder.”

Permits – Contractor is responsible for applying and receiving all required permits before construction mobilization.

CONSTRUCTION SCHEDULE – Contractor shall submit a construction schedule within 14 days of the date of this notice to the Engineer and Owner. Schedule items will include, as a minimum, the following:

- **Time frame will be in days with a starting point at Notice to Proceed**
- **Review and approval time of submittals**
- **Order and delivery time of critical path items**
- **Mobilization and construction set up time**
- **Construction time**
- **Anticipated Substantial Completion date**
- **Anticipated Final Change Order submittal date**
- **Anticipated project closure date**

Failure to comply with these conditions within the time specified will entitle OWNER to consider the CONTRACTOR's Bid abandoned, to annul this Notice of Award and to declare the CONTRACTOR's Bid Security forfeited.

Within sixty (60) days after compliance with the above conditions, the OWNER will return to the CONTRACTOR one fully signed counterpart of the Contract Documents.

If you have any questions, or if we can be of any further assistance, please do not hesitate to contact this office at 985-652-9569, Monday through Thursday 7:30am to 4:30pm.

Blake Fogleman
Director, Utilities Department

cc:

Ross Gonzales, Chief Financial Officer, St. John the Baptist Parish
Digital Engineering
Burk-Kleinpeter, Inc.
Project File

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NOTICE TO PROCEED

Date _____, 20____

TO: _____

PROJECT NAME: LIONS WATER TREATMENT PLANT PUMP STATION INTAKE PROJECT

PROJECT NO.:

Gentlemen:

You are hereby notified to commence work on the subject contract on _____ and to fully complete the work within _____ calendar days. In accordance with the contract, the Final Completion date is _____. Any extension in time will be by written change order only.

The contract provides for assessment of liquidated damages in the amount of _____, for each consecutive calendar day after the above established final completion date, if work is not complete.

Please sign below as official indication of mutual agreement and mail one copy back to the St John the Baptist Parish Utilities Department.

Blake Fogleman
Director, Utilities Department
1801 W. Airline Hwy.
LaPlace, LA 70068

Acceptance of Notice

Receipt of the above Notice to Proceed
is hereby acknowledged by

This _____, 20____

By _____

Title _____

CC: Natalie Robottom, St. John the Baptist Parish President
Ross Gonzales, St. John the Baptist Parish Chief Financial Officer

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APPLICATION FOR PAYMENT



Application and Certificate for Payment

TO OWNER:	PROJECT:	APPLICATION NO:	Distribution to:
		PERIOD TO:	OWNER <input type="checkbox"/>
FROM CONTRACTOR:	VIA ARCHITECT:	CONTRACT FOR:	ARCHITECT <input type="checkbox"/>
		CONTRACT DATE:	CONTRACTOR <input type="checkbox"/>
		PROJECT NOS: / /	FIELD <input type="checkbox"/>
			OTHER <input type="checkbox"/>

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM \$ _____

2. Net change by Change Orders \$ _____

3. CONTRACT SUM TO DATE (Line 1 ± 2) \$ _____

4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$ _____

5. RETAINAGE:

a. _____% of Completed Work
(Column D + E on G703) \$ _____

b. _____% of Stored Material
(Column F on G703) \$ _____

Total Retainage (Lines 5a + 5b or Total in Column I of G703) \$ _____

6. TOTAL EARNED LESS RETAINAGE \$ _____
(Line 4 Less Line 5 Total)

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT \$ _____
(Line 6 from prior Certificate)

8. CURRENT PAYMENT DUE \$ _____

9. BALANCE TO FINISH, INCLUDING RETAINAGE \$ _____
(Line 3 less Line 6)

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$ _____	\$ _____
Total approved this Month	\$ _____	\$ _____
TOTALS	\$ _____	\$ _____
NET CHANGES by Change Order	\$ _____	

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:

By: _____ Date: _____

State of: _____

County of: _____

Subscribed and sworn to before me this _____ day of _____

Notary Public: _____

My Commission expires: _____

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED \$ _____

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:

By: _____ Date: _____

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

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APPLICATION FOR PAYMENT

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CHANGE ORDER

No. _____

DATE OF ISSUANCE _____

EFFECTIVE DATE _____

OWNER _____

CONTRACTOR _____

Contract: _____

Project: _____

OWNER's Contract No. _____ ENGINEER's Contract No. _____

ENGINEER _____

You are directed to make the following changes in the Contract Documents:

Description: *See attached example on how to fill in this information*

1. Delete the Following Work Items:

- a. Contract Item #: *Line Item description*
Delete item in its entirety. (-\$ xxx.xx)
- b. Contract Item #: *Line Item description*
Delete item in its entirety. (-\$ xxx.xx)

Total of Deducted Items = (-\$xxx.xx)

2. Add the Following Work Items:

- a. New Contract Item #: *Line Item description*
Addition of \$ xxx.xx (L.S.). See attached cost estimate for details.
- b. New Contract Item #: *Line Item description*
Addition of \$ xxx.xx (L.S.). See attached cost estimate for details.

Total of Added Work Items = (+\$xxx.xx)

3. Revise the Following Work Item Quantities:

- a. Contract Item #: *Line Item description*
The quantity is to be changed to *define quantity and units*. (+/- \$ xxx.xx)
- b. Contract Item #: *Line Item description*
The quantity is to be changed to *define quantity and units*. (+/- \$ xxx.xx)

Total of Change in Work Items Quantity = (+/- \$xxx.xx)

Reason for Change Order: List a reason for each Line Item listed above. *See attached example on how to fill in this information*

- 1. Deleted Work Items
 - a. Describe reason for deleting Work Item in detail.
 - b. Describe reason for deleting Work Item in detail.
- 2. Add Work Items
 - a. Describe reason for adding Work Item in detail.
 - b. Describe reason for adding Work Item in detail.
- 3. Revise Work Item Quantities
 - a. Describe reason for revising Work Item quantities in detail.
 - b. Describe reason for revising Work Item quantities in detail.

Attachments: (List documents supporting change)

CHANGE IN CONTRACT PRICE:
Original Contract Price \$ _____
Net Increase (Decrease) from previous Change Orders No. ___ to ___: \$ _____
Contract Price prior to this Change Order: \$ _____
Net increase (decrease) of this Change Order: \$ _____
Contract Price with all approved Change Orders: \$ _____

CHANGE IN CONTRACT TIMES:
Original Contract Times: Substantial Completion: _____ Ready for final payment: _____ (days or dates)
Net change from previous Change Orders No. ___ to No. ___: Substantial Completion: _____ Ready for final payment: _____ (days)
Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____ (days or dates)
Net increase (decrease) this Change Order: Substantial Completion: _____ Ready for final payment: _____ (days)
Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____ (days or dates)

RECOMMENDED:

APPROVED:

ACCEPTED:

By: _____
ENGINEER (Authorized Signature)

By: _____
OWNER (Authorized Signature)

By: _____
CONTRACTOR(Authorized Signature)

Date: _____

Date: _____

Date: _____

CHANGE ORDER

INSTRUCTIONS

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both. **A draft copy of the change order shall be reviewed by the Owner before final copies are circulated for signatures.**

Once Engineer has completed and signed **(6) SIX ORIGINAL COPIES** of the change order, the (6) six copies should be sent to Contractor for approval and signatures. After Contractor approval, all (6) six copies should be sent to the Owner for introduction and council vote. Once the change order has been approved by the St. John the Baptist Parish Council, executed copies of the changer order will be distributed to the Engineer and Contractor.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

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CERTIFICATE OF SUBSTANTIAL COMPLETION

DATE OF ISSUANCE _____

OWNER _____

CONTRACTOR _____

Contract: _____

Project: _____

OWNER's Contract No. _____

ENGINEER's Project No. _____

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

To _____
OWNER

And To _____
CONTRACTOR

The Work to which this Certificate applies has been inspected by authorized representatives of OWNER, CONTRACTOR and ENGINEER, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on

DATE OF SUBSTANTIAL COMPLETION

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within _____ days of the above date of Substantial Completion.

EJCDC No. 1910-8-D (1996 Edition)
Prepared by the Engineers' Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Specifications Institute.

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees shall be as follows:

OWNER: _____

CONTRACTOR: _____

The following documents are attached to and made a part of this Certificate:

[For items to be attached see definition of Substantial Completion as supplemented and other specifically noted conditions precedent to achieving Substantial Completion as required by Contract Documents.]

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR's obligation to complete the Work in accordance with the Contract Documents. **Submit 6 (six) original documents signed and dated by the engineer and contractor to Utilities Department, 1801 W. Airline Hwy., LaPlace, La 70068 for processing.**

Executed by ENGINEER on _____
Date

ENGINEER

By: _____
(Authorized Signature)

CONTRACTOR accepts this Certificate of Substantial Completion on _____
Date

CONTRACTOR

By: _____
(Authorized Signature)

OWNER accepts this Certificate of Substantial Completion on _____
Date

OWNER

By: _____
(Authorized Signature)

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms**

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*--The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

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

6. *Bidder*--The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*--A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*-- Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*--The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*--See Paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *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.

19. *Engineer*--The individual or entity named as such in the Agreement.

* See SC-1.01 of Supplemental Conditions

20. *Field Order*--A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

22. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

23. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*--A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*--Polychlorinated biphenyls.

31. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule*--A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.

37. *Resident Project Representative*--The authorized representative of Engineer who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Schedule of Submittals*--A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

40. *Schedule of Values*--A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

41. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

42. *Site*--Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

43. *Specifications*--That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain

administrative requirements and procedural matters applicable thereto.

44. *Subcontractor*--An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.

45. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.

47. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

48. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.

49. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

50. *Unit Price Work*--Work to be paid for on the basis of unit prices.

51. *Work*--The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

52. *Work Change Directive*--A written statement 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 subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times

but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

B. Intent of Certain Terms or Adjectives

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. Day

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

- a. does not conform to the Contract Documents, or
- b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or
- c. 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 14.04 or 14.05).

E. Furnish, Install, Perform, Provide

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed **

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement

or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work ***

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction ****

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule; indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided

* See SC-2.03 of Supplemental Conditions

** See SC-2.04 of Supplemental Conditions

*** See SC-2.05B of Supplemental Conditions

below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. 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 labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, 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),

except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of, their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:

1. 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 or Engineer's consultants, including electronic media editions; or

2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer.

B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or

Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party..

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for

temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

*A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

**B. *Limited Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice*: If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

1. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. Possible Price and Times Adjustments

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or

* See SC-4.02A of Supplemental Conditions

** See SC-4.02B of Supplemental Conditions

Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

*A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall,

*** See SC-4.04.A of Supplemental Conditions**

promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not

Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner’s own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06. G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual’s or entity’s own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual’s or entity’s own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

5.01 *Performance, Payment, and Other Bonds*

*A. 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 of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

**B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall 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 Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or 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 Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional

insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

5.04 *Contractor's Liability Insurance*

***A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

****B. The policies of insurance required by this Paragraph 5.04 shall:

*** See SC-5.04.A of Supplemental Conditions

**** See SC-5.04.B of Supplemental Conditions

* See SC-5.01.A of Supplemental Conditions

** See SC-5.01.B of Supplemental Conditions

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.

a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

*A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, (other than caused by flood) and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

~~**B. Owner shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and~~

* See SC-5.06.A of Supplemental Conditions

** See SC-5.06.B of Supplemental Conditions

~~Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.~~

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

*D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

~~**E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.~~

5.07 *Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and

* See SC-5.06.D of Supplemental Conditions

** See SC-5.06.E of Supplemental Conditions

damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order .

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any 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 permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, 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. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign 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 or received from the superintendent shall be binding on Contractor.

6.02 *Labor; Working Hours*

A. 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.

*B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

**A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer,

* See SC-6.02.B of Supplemental Conditions

** See SC-6.03.A of Supplemental Conditions

Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 Progress Schedule

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

*1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 Substitutes and "Or-Equals"

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. "Or-Equal" Items: If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,

3) it has a proven record of performance and availability of responsive service; and

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times, and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

* See SC-6.04.A.1 of Supplemental Conditions

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;

b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified, and

b) available engineering, sales, maintenance, repair, and replacement services;

4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,

B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or

equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. Special Guarantee: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. Engineer's Cost Reimbursement: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. Contractor's Expense: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 Concerning Subcontractors, Suppliers, and Others

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or

entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor

2. shall anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. 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.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property

insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. 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. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. 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.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 Taxes

A. 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.

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas 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 adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of

or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *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.

6.12 Record Documents

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during 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.

6.13 Safety and Protection

A. Contractor shall be solely 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:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

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.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property 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 other 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.

C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform 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 , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

D. Contractor's duties and responsibilities for safety and for 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 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give

Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. Shop Drawings

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples*: Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals , any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog

numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) 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.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation

from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 Continuing the Work

A. 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 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 Contractor's General Warranty and Guarantee

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A 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, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 - OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly 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. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

*A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

**B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

* See SC-7.02.A of Supplemental Conditions

** See SC-7.02.B of Supplemental Conditions

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 *Insurance*

A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site 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 generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative**

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the

* See SC-9.03 of Supplemental Conditions

responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

A. 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 Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by 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 Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or

otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, 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.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be respon-

sible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. 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).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; 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 6.18.A.

10.04 *Notification to Surety*

A. 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 Times) 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. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim, shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied

by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. Engineer's Action: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part,
2. approve the Claim, or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. Costs Included: The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. 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 11.01.B.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value,

of such items used but not consumed which remain the property of Contractor.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.

e. 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.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages 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.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. Costs Excluded: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of

partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

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.

4. 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.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. Contractor's Fee: When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays**

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the

performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the

*** See SC-12.03.F and SC-12.03.G of Supplemental Conditions**

Work at reasonable times for their observation, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise

them of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E 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.

13.04 *Uncovering Work*

A. 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.

B. 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.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); 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, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to 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, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of

or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or
2. correct such defective Work; or
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications .

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be

extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution 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 the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. 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, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, 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 or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or 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, Owner's other contractors, and Engineer and Engineer's consultants

access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and 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. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A 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.

14.02 *Progress Payments*

A. Applications for Payments

*1. At least 20 days before the date established in the Agreement for each progress payment (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. 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 a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are

covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications*

1. Engineer will, within 10 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 resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally 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 9.07, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

* See SC-14.02.A.1 of Supplemental Conditions

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed

inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

- a. to supervise, direct, or control the Work, or
- b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
- c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
- d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
- e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

**C. Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

- a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
- b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
- c. there are other items entitling Owner to a set-off against the amount recommended; or
- d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.

3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 *Contractor's Warranty of Title*

A. 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.

*** See SC-14.02.C Supplemental Conditions**

14.04 *Substantial Completion*

A. 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.

B. Promptly after Contractor's notification, , 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 reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will 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 to 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 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. 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, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing 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.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed 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 for its intended purpose without significant interference with Contractor's performance of the

remainder of the Work, subject to the following conditions.

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

2. 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.

3. 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 therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 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.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

*A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in

* **See SC-14.07.A of Supplemental Conditions** accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may

make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

- a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;
- b. consent of the surety, if any, to final payment;
- c. a list of all Claims against Owner that Contractor believes are unsettled; and
- d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) 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. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance

1. 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 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 for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

*C. Payment Becomes Due

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and , will be paid by Owner to Contractor.

14.08 Final Completion Delayed**

A. 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 (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, 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 5.01, 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.

14.09 Waiver of Claims

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

* See SC-14.07.C of Supplemental Conditions

** See SC-14.08 of Supplemental Conditions

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of

not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure 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 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion),

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and

3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall

pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

E. 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.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or

2. agrees with the other party to submit the Claim to another dispute resolution process, or

3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. 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

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will 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.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to 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. The provisions of this Paragraph will 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.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Docu-

ments, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings**

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

*** See SC-17.07 of Supplemental Conditions.**

SECTION 00810

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

SC-1.01

The items used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

Add the following definitions:

"Easement/Servitude - The burden placed on property due to specified rights to its use. The terms may be used interchangeably."

"Record Drawing - The engineering plans, amended for the changes incorporated during construction."

"Special Provision - The part of the Contract Documents which emphasizes, specifies or advises the Contractor of special items or circumstances particular to the project or amends or supplements General Conditions and Supplementary Conditions."

SC-2.03.

Refer to paragraph GC 2.03. The seventh line of this paragraph is amended to read as follows:

".....later than the one hundred-twentieth (120th) day after day of Bid opening....."

and so amended paragraph 2.03. remains in effect.

SC-2.04.

Amend the first sentence of paragraph 2.04. of General Conditions to read as follows:

"CONTRACTOR shall start to perform the Work within ten (10) calendar days of the date when....."

and so amended paragraph 2.04. remains in effect.

SC-2.05.B

Add the following paragraph SC-2.05.B at the end of this Section.

"2.05.B. *Evidence of Insurance*: All liability, property and other insurance specified in Contract Documents shall be purchased and maintained by CONTRACTOR as set forth in Article 5 (unless otherwise specified in the Special Provisions). CONTRACTOR shall deliver the required insurance certificates for the project to the ENGINEER within seven (7) calendar days of the execution of the Agreement. Failure to comply with this requirement will delay issuance of the Notice to Proceed."

SC-4.02.A.

Amend the first line of paragraph 4.02.A. of General Conditions to read as follows:

"The Special Provisions identify:"

and so amended paragraph 4.02.A. remains in effect.

SC-4.02.B.

Amend the fifth line of paragraph 4.02.B. of General Conditions to read as follows:

"Such "technical data" is identified in the Special Provisions."

and so amended paragraph 4.02.B. remains in effect.

SC-4.04.A.

Amend the last sentence of paragraph 4.04.A. of General Conditions to read as follows:

"Unless it is otherwise expressly provided in the Special Provisions:"

and so amended paragraph 4.04.A. remains in effect.

SC-5.01.A.

The first sentence of paragraph 5.01.A. of General Conditions shall be amended to read as follows:

"CONTRACTOR shall purchase and maintain performance....."

Also, the sixth line of paragraph 5.01.A. of General Conditions shall be amended to read as follows:

"one year after the date of Official OWNER acceptance, except"

and so amended paragraph 5.01.A. remains in effect.

SC-5.01.B.

The first sentence of paragraph 5.01.B. of the General Conditions shall be amended to read as follows:

"All Bonds shall be in the forms prescribed by Law or Regulations or by the Contract Documents and shall be executed by such sureties as (i) are licensed to conduct business in the state where the Project is located, (ii) are approved by the Louisiana State Insurance Commissioners and (iii) sureties shall have at least an "A" or better financial rating and a Class 8 or better General Policy holder rating according to the latest A.M. Best Company ratings."

and so amended paragraph 5.01.B. remains in effect.

SC-5.04.A.

The insurance requirements in Article 5.04.A. of General Conditions are hereby modified. All liability and property insurance shall be purchased and maintained by CONTRACTOR as set forth herein.

Satisfactory certificates of insurance shall be filed with OWNER/ ENGINEER prior to starting any construction work on this contract. Applicable provisions of General Conditions 5.04.A. shall govern the purchase of all insurance coverage.

"5.04.A.1 & 5.04.A.2. Workmen's Compensation and Employer's Liability:

This insurance shall protect CONTRACTOR against all claims under applicable state workmen's compensation laws. CONTRACTOR shall also be protected against claims for injury, disease, or death of employees, which, for any reason, may not fall within the provisions of a workmen's compensation law. This policy shall include an "all states" endorsement.

The liability limits shall be not less than:

Workmen's compensation Statutory

Employer's liability \$100,000 each occurrence

5.04.A.3. through 5.04.A.5. Comprehensive General Liability: This insurance shall be written in comprehensive form and shall protect CONTRACTOR against all claims arising from injuries to persons other than his employees or damage to property of OWNER or others arising out of any act or omission of CONTRACTOR or his agents,

employees, or Subcontractors. The policy shall also include protection against claims insured by usual personal injury liability coverage, a "protective liability" endorsement to insure the contractual liability assumed by CONTRACTOR under the indemnification provisions in General Conditions, and "Completed Operations and Products Liability" coverage (to remain in force during the correction period). To the extent that CONTRACTOR's work, or work under his direction, may require blasting, explosive conditions, or underground operations, the comprehensive general liability coverage shall contain no exclusion relative to blasting, explosion, collapse of buildings, or damage to underground property.

Combined single limits of \$500,000.00 each occurrence and \$1,000,000 aggregate for Bodily Injury and Property Damage.

5.04.A.6. Comprehensive Automobile Liability: This insurance shall be written in comprehensive form and shall protect CONTRACTOR against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles licensed for highway use, whether they are owned, non-owned, or hired.

The liability limits shall be not less than:

Combined single limit of \$500,000.00 each occurrence and \$500,000 aggregate for Bodily Injury and Property Damage.

5.04.A.7. Umbrella Liability Policy: This insurance shall protect CONTRACTOR against all claims in excess of the limits provided under the workmen's compensation and employer's liability, comprehensive automobile liability, and general liability policies. The liability limits of the umbrella liability policy shall not be less than \$5,000,000."

and so amended paragraph 5.04.A. remains in effect.

SC-5.04.B.

The contractual liability required by paragraph 5.04.B.2. of General Conditions shall provide coverage for not less than the following amounts:

"5.04.B.2.1. Bodily Injury:	\$500,000	each occurrence
	\$1,000,000	aggregate
5.04.B.2.2. Property Damage	\$250,000	each occurrence
	\$500,000	aggregate"

Amend the first line of the paragraph following paragraph 5.04.B.6. of General Conditions to read as follows:

"Remain in effect until Official OWNER acceptance and at all times thereafter..."

Amend the third and fourth lines of the paragraph 5.04.B.7. of General Conditions to read as follows:

"...remain in effect for at least two years after Official OWNER acceptance..."

and so amended Article 5.04.B. of General Conditions remains in effect.

SC-5.06.A.

Change the first sentence of paragraph 5.06.A to read as follows:

"5.06.A. CONTRACTOR shall purchase and maintain, from effective date of agreement to official OWNER acceptance, property insurance upon the Work at the site..."

Add paragraph 5.06.A.8 of General Conditions to read as follows:

Installation Floater: This insurance shall protect CONTRACTOR, OWNER and ENGINEER from all insurable risks of physical loss or damage to materials and equipment not otherwise covered under builder's risk insurance, while in approved warehouses or approved storage areas, during installation, during testing, and after the Work is completed. It shall be of the "all-risks" type, with coverage designed for the circumstances which may occur in the particular Work included in this contract. The coverage shall be for an amount not less than the insurable value of the Work at completion, less the value of the materials and equipment insured under builder's risk insurance. The value shall include the aggregate value of the OWNER-furnished equipment and materials (if any) to be erected or installed by CONTRACTOR not otherwise insured under builder's risk insurance.

Installation floater insurance shall provide for losses to be payable to CONTRACTOR, OWNER and ENGINEER as their interest may appear. The policy shall contain a provision that in the event of payment for any loss under the coverage provided, the insurance company shall have no rights of recovery against the CONTRACTOR, OWNER and ENGINEER.

Certificates of insurance covering installation floater insurance shall quote the insuring agreement and all exclusions as they appear in the policy; or in lieu of certificates, copies of the complete policy may be submitted."

SC-5.06.B.

Delete entire paragraph 5.06.B. of General Conditions.

SC-5.06.D.

Add the following language at the end of paragraph 5.06.D. of General Conditions:

"No property insurance required by Contract Documents shall have deductible amount in excess of \$5,000.00."

SC-5.06.E.

Delete entire paragraph 5.06.E. of General Conditions.

and so amended Article 5.06. of General Conditions remains in effect.

SC-6.02.B.

The following paragraph shall be added at the end of paragraph 6.02.B. of General Conditions:

"6.02.B.1. Overtime Work: No work shall be done between 6:00 P.M. and 7:00 A.M. nor on Sundays or legal holidays without permission of OWNER. However, emergency work may be done without prior permission.

Night work may be undertaken as a regular procedure with the permission of OWNER; such permission, however, may be revoked at any time by OWNER if CONTRACTOR fails to maintain adequate equipment and supervision for the proper prosecution and control of the Work at night.

The CONTRACTOR shall establish a normal work schedule which does not exceed 40 hours per week.

and so amended Article 6.02.B. of General Conditions remains in effect.

SC-6.03.A.

Add the following language at the end of paragraph 6.03.A. of General Conditions:

"Except for items specifically identified as provided by OWNER, CONTRACTOR shall pay for all labor, materials and other costs incurred under this contract."

and so amended paragraph 6.03.A. remains in effect.

SC-6.04.A.1.

At the end of paragraph 6.04.A.1. of General Conditions to read as follows:

"Contractor shall submit adjustments in the progress schedule every thirty (30) days or as directed by ENGINEER to reflect the impact thereon of new developments."

and so amended paragraph 6.04.A. remains in effect.

SC-7.02.A.

The words "Supplementary Conditions" in the third line of paragraph 7.02.A. of the General Conditions shall be substituted with "Special Provisions."

and so amended paragraph 7.02.A. will remain in effect.

SC-7.02.B.

The words "Supplementary Conditions" in the first line of paragraph 7.02.B. of the General Conditions shall be substituted with "Special Provisions."

and so amended paragraph 7.02.B. will remain in effect.

SC-9.03.

The paragraph 9.03. of General Conditions shall be amended by adding, at the end of the paragraph, the following language:

"ENGINEER may furnish a Resident Project Representative and assistants to aid ENGINEER in carrying out his responsibilities at the site. The duties, responsibilities and limitations of authority of the Resident Project Representative are set forth in Exhibit A attached to these Supplementary Conditions."

and so amended paragraph 9.03. will remain in effect.

SC-12.03.F and SC-12.03.G.

Add the following articles 12.03.F and 12.03.G. after paragraph 12.03.E. of General Conditions.

"12.03.F. CONTRACTOR shall accept the risk of any delays caused by the rate of progress of the Work to be performed under other Sections of this contract or other contracts. In the event CONTRACTOR is delayed in the prosecution and completion of the Work because of such conditions, CONTRACTOR shall have no claim against OWNER for damages or contract adjustment other than an extension of Contract Time and waiving of liquidated damages during the period occasioned by the delay.

12.03.G. Time limitations required by OWNER shall be for the benefit of OWNER and CONTRACTORS under other Sections of this contract or other contracts who have

entered into such contracts with OWNER in reliance on the time limitations set forth in these Contract Documents. Any claim by CONTRACTOR for damages due to delay by another contractor shall be asserted against that CONTRACTOR."

and so amended paragraph 12.03. remains in effect.

SC-14.02.A.1.

Add article 14.02.A.1.a. and 14.02.A.1.b. immediately after paragraph 14.02.A.1. of General Conditions, as follows:

"14.02.A.1.a. Schedules: Each Application for Progress Payment shall be accompanied by CONTRACTOR's updated schedule of operations, or progress report, with such shop drawing schedules, procurement schedules, value of material on hand included in application, and other data specified in Division 1 or reasonably required by ENGINEER.

14.02.A.1.b. Payment for Material on Hand:

- (a) General: When approved by the ENGINEER, advance payments may be made for fabricated or manufactured materials that are to be incorporated in the project when such materials are stockpiled or stored on the project or in acceptable facilities outside the limits of the project within a 50 mile radius. These materials must meet the specifications; however, partial payment for materials on hand will not constitute acceptance. It shall be the CONTRACTOR's responsibility to protect the material from damage while in storage. Payments shall be limited to those materials described herein that are durable in nature and must represent a SIGNIFICANT portion of the project cost. Further, on lump sum contracts or lump sum bid items, payments shall be limited to those materials which are specifically identified by a separate line item on the schedule of values. Perishable articles, small warehouse items, reinforcing steel and natural materials such as aggregate, stone, expanded clay, river sand, crushed rock and recycled concrete will not be included.

Payment for materials, unless otherwise stated in the specifications, shall be the invoice price for the material. For fabricated materials purchased from commercial sources and delivered to approved storage, payment for material on hand may be the invoice price plus freight and taxes. The quantity of materials for payment will not exceed the total estimated quantity required to complete the project and the invoice values will not exceed the appropriate portion of the contract item in which such materials are to be incorporated.

The amounts advanced on stockpiles or stored materials will be recovered by the OWNER through deductions made on construction estimates and payments as the materials are incorporated in the work.

Payment for material on hand must be requested by the CONTRACTOR in writing and the following documents must be furnished before approval is recommended:

- (1) Written consent from the CONTRACTOR's surety for the OWNER to make such partial payment.
- (2) A copy of the original invoices from the supplier or manufacturer verifying the cost and quantity of material, and identifying the material by serial number or other appropriate description.
- (3) If storage is on private property, a copy of the lease or agreement granting the OWNER right of entry to the property.

Within thirty (30) days after payment by the OWNER, the CONTRACTOR shall submit a copy of certified invoice statement for each item for which payment has been made. If this certification of payment is not presented within the thirty (30) day period, the advance payment will be deducted from future progress payments.

Title and ownership of materials for which advancements have been made by the OWNER shall not vest in the OWNER until such materials are actually incorporated in the work and the work accepted by the OWNER and the making of advancements thereof by the OWNER shall not release the CONTRACTOR from the responsibility for any portion thereof.

- (b) Fabricated Material: This shall be fabricated or manufactured materials that are purchased by the CONTRACTOR for the project and may include but is not limited to the following:

Structural steel, fabricated structural steel items, steel piling, mechanical equipment, electrical equipment, precast and precast-prestressed concrete items including pipe, fittings, piling, girders and bridge sections, structural timber, timber piling, metal and PVC pipe and fittings."

and so amended paragraph 14.02.A.1. remains in effect.

SC-14.02.C

The beginning of the first sentence of paragraph 14.02.C.1. of General Conditions shall read as follows:

"Thirty days after presentation"

and so paragraph 14.02.C. as amended above remains in effect.

SC-14.07.A.

Add the following language after paragraph 14.07.A.3. of General Conditions:

"4. CONTRACTOR's Application for Final Payment shall also be accompanied by consent of the Surety to final payment and a clear lien and privilege certificate issued by the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish."

and so paragraph 14.07.A. as amended above remains in effect.

SC-14.07.C.

The first sentence of paragraph 14.07.C.1. of General Conditions shall be amended as follows:

Delete words "Thirty days" from beginning of first sentence of the paragraph 14.07.C.1. and insert "and in accordance with Louisiana State Public Contract Statute" before the words "will become due" in the fourth line of this paragraph.

and so paragraph 14.07.C. as amended above remains in effect.

SC-14.08.

Add the following language at the end of paragraph 14.08. of General Conditions:

"When CONTRACTOR is in default for nonperformance within the stipulated Contract Time, OWNER shall deduct the liquidated damages amount stated in the Agreement from the CONTRACTOR's payment request."

and so paragraph 14.08. as amended above remains in effect.

SC-17.07.

Add the following new paragraph at the end of paragraph 17.06. of General Conditions:

"17.07. Assignment: Neither party to this contract shall assign or sublet his interest in this contract without written consent of the other, nor shall CONTRACTOR assign any moneys due or to become due him under this contract without previous written consent of OWNER, nor without the consent of the surety unless the Surety has waived its right to notice of assignment."

and so paragraph 17. as amended above remains in effect.

END OF SECTION

EXHIBIT A

Duties, Responsibilities and Limitations of Authority of Resident Project Representative

A. General

Resident Project Representative (RPR) is ENGINEER's agent at the site, will act as directed by and under the supervision of ENGINEER, and will confer with ENGINEER regarding RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with ENGINEER and Contractor, keeping OWNER advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with OWNER with the knowledge of and under the direction of ENGINEER.

B. Duties and Responsibilities of RPR

1. *Schedules:* Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by Contractor and consult with ENGINEER concerning acceptability.
2. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
3. *Liaison:*
 - a. Serve as ENGINEER's liaison with Contractor, working principally through Contractor's superintendent and assist in understanding the intent of Contract Documents.
 - b. Assist ENGINEER in serving as OWNER's liaison with Contractor when Contractor's operations affect OWNER's on-site operations.
 - c. Assist in obtaining from OWNER additional details or information, when required for proper execution of the Work.
4. *Interpretation of Contract Documents:* Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by the ENGINEER.
5. *Shop Drawings and Samples:*
 - a. Record date of receipt of Shop Drawings and Samples.
 - b. Receive Samples which are furnished at the site by Contractor, and notify ENGINEER of availability of Samples for examination.
 - c. Advise ENGINEER and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which the RPR believes that the submittal has not been approved by ENGINEER.
6. *Modifications:* Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to ENGINEER. Transmit to Contractor in writing decisions as issued by ENGINEER.

7. *Review of Work, Rejection of Defective Work:*

- a. Conduct on-site observations of the Work in progress to assist ENGINEER in determining if the Work is in general proceeding in accordance with the Contract Documents.
- b. Report to ENGINEER whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise ENGINEER of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

8. *Inspections, Tests and System Start-ups:*

- a. Consult with ENGINEER in advance of scheduled major inspections, tests, and systems start-ups of important phases of the Work.
- b. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate OWNER's personnel, and that Contractor maintains adequate records thereof.
- c. Observe, record, and report to ENGINEER appropriate details relative to the test procedures and systems start-ups.
- d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to ENGINEER.

9. *Records:*

- a. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and Samples, reproductions of original Contract Documents including all Change Orders, Field Orders, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Contract, ENGINEER's clarifications and interpretations of the Contract Documents, progress reports, Shop Drawing and Sample submittals received from and delivered to Contractor and other Project related documents.
- b. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the job site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to ENGINEER.
- c. Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment.
- d. Maintain records for use in preparing Project documentation.
- e. Upon completion of the Work, furnish original set of all RPR Project documentation to ENGINEER.

10. *Reports:*

- a. Furnish to ENGINEER periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to ENGINEER proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Furnish to ENGINEER and OWNER copies of all inspection, test, and start-up reports.

- d. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Constituent of Concern. .
11. *Payment Requests:* Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.
 12. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to ENGINEER for review and forwarding to OWNER prior to payment for that part of the Work.
 13. *Completion:*
 - a. Before ENGINEER issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
 - b. Observe whether Contractor has arranged for inspections required by Laws and Regulations, including but not limited to those to be performed by public agencies having jurisdiction over the work.
 - c. Participate in a final inspection in the company of ENGINEER, OWNER and Contractor and prepare a final list of items to be completed or corrected.
 - d. Observe whether all items on final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance and issuance of the Notice of Acceptability of the Work.

C. Resident Project Representative shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including “or-equal” items), unless authorized by ENGINEER.
2. Exceed limitations of ENGINEER’s authority as set forth in the Agreement or the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor’s superintendent.
4. Advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
5. Advise on, issue directions regarding or assume control over safety precautions and programs in connection with the activities or operations of OWNER or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by ENGINEER.
7. Accept Shop Drawings or Sample submittals from anyone other than Contractor.
8. Authorize OWNER to occupy the Project in whole or in part.

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FEDERAL CONDITIONS

FEDERAL CONDITIONS

FC.01 “GOOD FAITH EFFORTS”

All bidding contractors must comply with the six affirmative action steps, also known as the six “Good Faith Efforts”.

FC.02 OSHA REQUIREMENTS

All bidding contractors must comply with all **OSHA requirements**.

FC.03 WOMEN’S AND MINORITY BUSINESS ENTERPRISE

All bidding contractors must comply with **Presidential Executive Orders (as amended) 11625, 12138, and 12432 - Women's and Minority Business Enterprise**.

FC.04 EQUAL EMPLOYMENT OPPORTUNITY

All bidding contractors must comply with **Presidential Executive Order (as amended) 11246, as amended by Executive Order 11375, Equal Employment Opportunity**.

FC.05 DEBARMENT AND SUSPENSION

All bidding contractors must comply with **Presidential Executive Order (as amended) 12549 - Debarment and Suspension**.

FC.06 PRESERVATION OF OPEN COMPETITION

All bidding contractors must comply with **Presidential Executive Order 13202, as amended by Executive Order 13208, Preservation of Open Competition**.

WAGE DETERMINATION

THE BIDDING DOCUMENTS INCLUDE A WAGE DETERMINATION FOR THE PROJECT BASED ON THE CURRENT U.S. DEPARTMENT OF LABOR WAGE RATES OBTAINED FROM WAGE DETERMINATIONS ONLINE ([HTTP://WWW.WDOL.GOV](http://www.wdol.gov)). THE WAGE DETERMINATION WILL BE RECHECKED TEN (10) DAYS BEFORE THE BID OPENING, AND IF IT HAS BEEN REVISED, THE REVISED VERSION WILL BE ISSUED TO BIDDERS AS AN ADDENDUM.

General Decision Number: LA170007 01/06/2017 LA7

Superseded General Decision Number: LA20160007

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: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 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 calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017

CARP0729-001 07/01/2012

	Rates	Fringes
MILLWRIGHT.....	\$ 25.80	9.50

CARP1846-006 07/01/2016

	Rates	Fringes
CARPENTER (formbuilding/formsetting and Piledrivers).....	\$ 24.66	8.60

ELEC0130-005 02/15/2016

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

	Rates	Fringes
ELECTRICIAN (including low voltage wiring).....	\$ 29.85	10.53

ELEC1077-002 06/01/2016		

ST. TAMMANY PARISH

	Rates	Fringes
ELECTRICIAN (including low voltage wiring).....	\$ 23.87	7.926

ENGI0406-018 07/01/2009		

	Rates	Fringes
OPERATOR: Power Equipment		
Bulldozer.....	\$ 21.26	6.70
Mechanic.....	\$ 23.31	6.70

PLAS0567-003 07/01/2014		

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

	Rates	Fringes
Cement Mason/Concrete Finisher...	\$ 21.43	6.19

PLAS0812-003 06/01/2004		

ST. JAMES PARISH

	Rates	Fringes
Cement Mason/Concrete Finisher...	\$ 21.85	0.00

* PLUM0060-002 12/05/2016		

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).....	\$ 29.03	11.59

 PLUM0198-005 01/01/2016

ST. JAMES PARISH (Northwestern Portion)

	Rates	Fringes
PLUMBER (excluding pipe laying).....	\$ 29.38	11.40

 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
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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.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide

employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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

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 Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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

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

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

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

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

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

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

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

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END OF GENERAL DECISION

Wage Rate Requirements Under FY 2013, 2014, 2015, & 2016 **Appropriations**

Wage Rate Requirements

The recipient agrees to include in all agreements to provide assistance for any construction project carried out in whole or in part with such assistance made available by a drinking water revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12), a term and condition requiring compliance with the requirements of section 1450(e) of the Safe Drinking Water Act (42 U.S.C.300j-9(e)) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for any construction project carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 these contract clauses as described below and entitled “Wage Rate Requirements Under The Clean Water Act, Section 513 and the Safe Drinking Water Act, Section 1450(e).” This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009.

Preamble

With respect to the Safe Drinking 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 For Subrecipients That Are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance 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. Dannell Brown (214-665-7279 or Brown.Dannell@epamail.epa.gov)

of EPA Region 6 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.

DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a 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 or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or **the Consolidated Appropriations Acts of 2013, 2014, 2015, & 2016**, 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 subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage

rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

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

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and 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 subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The 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 subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients 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. Subrecipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or sub-contract. 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 thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

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

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/whd/america2.htm>.

II. Requirements under FY 2013, 2014, 2015, & 2016 Full-Year Continuing Appropriation Act For Sub-recipients That Are Not 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 with respect to State recipients and 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 (214-665-7279 or Brown.Dannell@epamail.epa.gov) of EPA Region 6 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 2013, 2014, 2015, and 2016 Consolidated Appropriations Acts, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a 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 their **DWRLF Project Engineer** 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.

(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 or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the **Consolidated Appropriations Acts of 2013, 2014, 2015, & 2016**, 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 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

vide 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 subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no

longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

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

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and 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 (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(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 (b)(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 indicates that there is a risk that the contractor or subcontractor is not complying with DB. Sub-recipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c). The 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 thereunder 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/contacts/whd/america2.htm>.

DAVIS-BACON AND RELATED ACTS PAYROLL CERTIFICATION

LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS • OFFICE OF PUBLIC HEALTH

Davis-Bacon and Related Acts Payroll Certification

NOTE: This certification is required for all projects receiving funding from DWRLF that must comply with Davis-Bacon requirements as indicated in the loan closing documents. All Payment Requests seeking reimbursement for construction costs must include this certification.

Name of Water System: _____

Name of Project: _____ **DWRLF Project No.** _____

Contractor / Subcontractor: _____

Weekly Payroll Numbers and Dates Covered by this Certification:

Payroll No.: _____	From: _____	To: _____	Comments: _____
Payroll No.: _____	From: _____	To: _____	Comments: _____
Payroll No.: _____	From: _____	To: _____	Comments: _____
Payroll No.: _____	From: _____	To: _____	Comments: _____
Payroll No.: _____	From: _____	To: _____	Comments: _____
Payroll No.: _____	From: _____	To: _____	Comments: _____
Payroll No.: _____	From: _____	To: _____	Comments: _____

Interview Verifications:

Recipients must conduct a minimum of two interviews: the first within two weeks of initial payroll submission, and the second two weeks prior to the completion date of the contract or sub-contract. Additional interviews should be performed if problems are found during the initial interview and at other times when needed. An interview form (Standard Form 1445 or equivalent) must be completed with every interview and kept on file.

Initial Interview Date: _____ Interview Date: _____ Interview Date: _____
Interview Date: _____ Interview Date: _____ Final Interview Date: _____

CERTIFICATION

I certify to the best of my knowledge and belief that the above referenced project complies with the Davis-Bacon and Related Acts requirements as indicated in the loan closing documents and that all laborers and mechanics employed by contractors and subcontractors during the above referenced period were paid wages at rates not less than those listed on the prevailing wage rate contained in the contract documents and that all applicable provisions of the Davis-Bacon and Related Acts have been met.

<u>Name of Certifying Official:</u>		<u>Title of Person Certifying:</u>	
<u>Signature:</u>		<u>Phone Number:</u>	<u>Date Signed:</u>

Payrolls and basic records must be maintained by the contractor for three years from project completion.

Drinking Water Revolving Loan Fund Program • Guidance for Submitting the
DISADVANTAGED BUSINESS ENTERPRISE (DBE)

GOOD FAITH EFFORT REQUIREMENTS

**LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS • OFFICE OF PUBLIC
HEALTH**

To ensure that contracts provide employment and growth opportunities for disadvantaged businesses, the Federal Government requires that all procurement made with Federal funds follow six (6) "Good Faith Effort" steps to utilize Disadvantaged Business Enterprises (DBEs), which includes minority (MBE), women (WBE), small (SBE), and small businesses in rural areas (SBRA). For that reason, Bidders/Prime Contractors/Subcontractors are required to submit proof demonstrating that good faith efforts have been made to maximize participation with DBE subcontractors prior to award and during the life of the contract. The good faith efforts requirements under the Louisiana Department of Health and Hospitals (LDHH) - Office of Public Health (OPH) - Drinking Water Revolving Loan Fund (DWRLF) (40 CFR 33.301) are contractual obligations that must be fulfilled.

THE SIX (6) GOOD FAITH EFFORTS

1. Inclusion of DBEs on solicitation lists.
2. Assure DBEs are solicited once they are identified
3. Where feasible, divide total requirements into smaller tasks to permit maximum DBE participation.
4. Where feasible, establish delivery schedules that will encourage DBE participation.
5. Encourage use of the services of the U.S. Department of Commerce's Minority Business Development Agency (MBDA) and the U.S. Small Business Administration to identify DBEs.
6. Require that each party to a subgrant, subagreement, or contract award take the affirmative steps outlined here.

Performing the above six efforts represents "good faith" efforts to attract and utilize DBEs, primarily through race/gender neutral outreach, recruitment and other activities. The objective is to expand the pool of bidders to include these types of businesses, not to use race or ethnicity in the actual decision - in other words, to level the playing field for these types of businesses. All efforts must be documented.

GOALS

In order to track and measure the DBE participation in Federally Funded Programs, as is the DWRLF, goals have been designated that the programs are expected to meet. Currently, the DWRLF is required to track the participation of all DBEs. However, goals have been set and reporting is required only for MBE and WBE participation. The goals have been divided into four categories as follows:

CURRENT GOALS*	SUPPLIES	EQUIPMENT	SERVICES	CONSTRUCTION
MBE	7.0 %	3.6 %	21.0 %	13.0 %
WBE	7.0 %	5.0 %	17.0 %	9.0 %

* Current Goals are based on the SFY 2014 goals. Note that the goals are subject to change each fiscal year.

DOCUMENTATION OF GOOD FAITH EFFORTS

All Bidders/Prime Contractors/Subcontractors are required to document their efforts in following the six (6) Good Faith Efforts, regardless of whether or not a DBE firm was found. A copy of all documented efforts should be submitted, especially printouts of any DBE lists. The following forms below must be completed and submitted as minimum documentation of complying with this requirement:

1. DBE COMPLIANCE AGREEMENT (DWRLF Form DBE1)
2. DBE CONTRACTOR DATA (DWRLF Form DBE2)
This form identifies the Prime Contractor and all Subcontractors to be USED on this contract. Also copies of all contracts and/or purchase agreements with subcontractors must be attached.
3. DBE SUBCONTRACTOR CONTACT LOG (DWRLF form DBE3)
This form logs all contact with DBEs. Also copies of letters or faxes sent to DBEs for solicitation purposes must be attached.
4. DBE SUBCONTRACTOR BIDS LIST (DWRLF form DBE4)
This form identifies all DBE proposals that were received by the contractor and whether the proposals were accepted or rejected.
5. DBE LETTER OF INTENT (DWRLF form DBE5)
This form must be used in lieu of a formal contract agreement between the Prime Contractor and any DBE Subcontractors or Sub-subcontractors.
6. DBE SUBCONTRACTOR PARTICIPATION FORM (EPA form 6100-2)
This form must be provided by Prime Contractors to *all* DBE subcontractors, who have the option to complete and submit it directly to the EPA Region 6's Small and Disadvantaged Business Coordinator.
7. DBE SUBCONTRACTOR PERFORMANCE FORM (EPA form 6100-3)
The prime contractor must have all of its DBE subcontractors complete this form.
8. DBE SUBCONTRACTOR UTILIZATION FORM (EPA form 6100-4)
The Prime Contractor must complete and submit this form.

Failure to submit these documents shall make the successful Bidder/Prime Contractor ineligible to be authorized by the DWRLF to receive construction payments. The DWRLF Project Engineer shall have the right to seek clarification or additional information to assure good faith effort compliance. All Prime Contractors/Subcontractors shall keep all such records as are necessary for the DWRLF to determine compliance with the DBE contract obligations. The required forms listed above document only the minimum information required. The minimum information is designed to illustrate the contractor's demonstrated efforts made to negotiate in good faith with interested DBEs for specific items of work. The contractor's records shall include the following:

1. Names, addresses and telephone numbers of all DBEs contacted and DBEs to be used.
2. The dates of initial contact and whether initial solicitations of interest were followed-up personally, by mail, or by phone to determine the DBEs interest.
3. A description of the information provided to DBEs regarding the nature of the work, the plans and specifications and estimated quantities for portions of the work to be performed.
4. A statement of why additional agreements with DBEs were not reached.
5. Documentation of each rejected DBE and the reasons for rejection.
6. All other efforts to obtain services of DBEs.

For those DBEs used for the project, the contractor's records shall include, in addition to the information listed above, the following:

1. Copies of subcontracts.
2. The type of work being performed.
3. Documentation such as canceled checks and paid invoices verifying payment for work, services, and procurement.
4. Documentation of correspondence, verbal contacts, telephone calls.

For additional good faith efforts please see the "ADDITIONAL EFFORTS" section below.

When requested, a Prime Contractor/Subcontractor shall submit information regarding DBEs in such form, manner and content as prescribed by DWRLF. The DWRLF reserves the right to investigate, monitor and/or review actions, statements and documents submitted by any Prime Contractor, Subcontractor, or DBE.

CONTACTING DBEs

Bidders/Prime Contractors/Subcontractors are required to make good faith efforts to contract with DBE firms for each category of work identified above which will need to be performed by a Subcontractor. These efforts must be made and documented, and the appropriate forms must be submitted to the DWRLF in order to qualify and be authorized to receive construction payments.

The Bidder/Prime Contractor/Subcontractor shall provide notice to a reasonable number of DBEs interested in participation as a subcontractor, regular dealer, manufacturer, or consultant for specific items of work. Any DBE may be contacted. However, in order to determine if a potential DBE qualifies, please review the "CERTIFICATION" section of this document.

The DWRLF DBE Program Coordinator may be able to assist in providing a basic list of Disadvantaged Businesses specializing in the categories of work identified in the above section "GOALS". The DWRLF DBE Coordinator may be reached at (225) 342-7499. Additional DBE Information may be obtained from the agencies listed in the attached list. The DWRLF strongly encourages the utilization of these agencies.

WHEN TO CONTACT DBEs: Depending upon bid/project conditions, notification should be provided with sufficient time to allow the DBEs to participate effectively.

HOW TO CONTACT DBEs: DBEs may be contacted by letter or fax to advise of potential subcontracting opportunities. A follow-up telephone call must be made to determine if a proposal will be submitted or if additional information is required by the DBE. A follow-up telephone call is not necessary if a response is made after the first contact by fax or letter (It is recommended that letters be sent certified mail). Note that blanket advertising in trade journals, newspapers or in other media is not alone considered sufficient effort. The fax or letter must include project information about plans, specifications, timing and other requirements, sufficient to permit the DBE firm to have an equal opportunity to compete for work as a subcontractor.

IMPORTANT NOTE: It is the decision of the consultant engineer and/or the water system as to whether the above listed documentation will be a matter of bidder responsibility or a matter of bid responsiveness. Generally, the documentation is a matter of bidder responsibility and it will be treated as such unless it clearly and unequivocally states in the bid documents that failure to meet the DBE requirements will cause the bid to be rejected as non-responsive. In deciding to make these requirements matters of responsiveness, extreme care must be exercised in drafting the invitations for bid and all bid solicitation documents. If there is any ambiguity in these documents concerning whether a bid failing to comply with the requirements will be automatically rejected as non-responsive, then the requirement will be considered to be a matter of responsibility which can be cured by the bidder after the bid opening. Consequently, where there is such ambiguity in the bid solicitation documents, a nonconforming bid must not be rejected as non-responsive.

ADDITION OR REPLACEMENT OF SUBCONTRACTORS DURING THE PROJECT:

If any subcontractor is added or replaced after the contract award or at any time during the life of the project, the Prime Contractor shall again make good faith efforts to contract with a DBE for the work to be performed by that subcontractor. Documentation of these efforts is required as stated above and the proper forms must be submitted to the DWRLF Project Engineer for approval.

ADDITIONAL EFFORTS

Good faith efforts include personal contacts, follow-ups and earnest negotiations with DBEs. The DWRLF will consider, at a minimum, the required documentation above as relevant efforts. However, the contractor shall keep all such records as are necessary for the DWRLF to determine compliance with the DBE contract obligations. Therefore, the following list provides additional efforts to assist in carrying out the six Good Faith Effort outreach and recruitment activities. This listing is not exclusive or exhaustive and other factors and types of efforts may be relevant.

- Perform an analysis to identify portions of work that can be divided and afford maximum participation by qualified subcontractors and supplier DBEs.
- Scrutinize the elements of the total project to develop economically feasible units of work that are within the bonding range of DBEs.

- Consider lead times and develop realistic delivery schedules, which may provide for greater DBE participation.
- Provide DBE trade organizations with summaries of solicitations.
- Effectively utilize the services of available community organizations; contractor's groups; local, state and federal business assistance offices such as the Small Business Administration, Minority Business Development Agency, US EPA, Office of Small and Disadvantaged Business Utilization (OSDBU), the Department of Transportation; and other organizations to assist in identifying DBEs for potential work opportunities on your projects.
- Maintain and update a listing of qualified DBEs that can be solicited for supplies, construction, equipment and/or services. Provide listings to all interested parties who request copies of the bidding or proposing documents.
- Advertise in general circulation, trade publications, State agency publications, DBE-focused media, etc., concerning contracting and subcontracting opportunities on your projects. Maintain a list of DBE-focused publications that may be utilized to solicit MBEs and WBEs.
- Conduct meetings, conferences and follow-ups with DBEs to inform these groups of opportunities to provide supplies, services, equipment, and construction or to walk the job-site.
- Conduct pre-bid, pre-solicitation and post-award conferences to ensure that consultants, suppliers, and builders solicit DBEs.
- Maintain copies of all bids and quotations received from DBE subcontractors and an explanation of why they were not used for company records.
- Assisting DBEs in obtaining bonding, insurance, or lines of credit required by the recipient or contractor.

The DWRLF reserves the right to investigate, monitor and/or review actions, statements and documents submitted by any contractor, subcontractor, or DBE.

DBE CERTIFICATION

DBEs must be CERTIFIED! EPA now certifies DBEs, so please contact **Ms. Debora Bradford**, Small and Disadvantaged Business Coordinator, EPA Region 6, (214) 665-7406, Bradford.Debora@epamail.epa.gov. The DWRLF will also accept any certified DBE that meets the following criteria:

- a. Certified by a Federal or a State/Local Governmental Agency (see attached list of agencies), and
- b. Be an independent business concern, which is at least 51 percent owned and controlled by minority group member(s) for MBE(s) or women WBE(s) who are citizens of the United States.
 1. A minority group member is an individual who is a *Black American*, *Hispanic American* (with origins from Puerto Rico, Mexico, Cuba, South or Central America), *Native American* (American Indian, Eskimo, Aleut, native Hawaiian), or *Asian-Pacific American* (with origins from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the U.S. Trust territories of the Pacific, Northern Marianas, Laos, Cambodia, Taiwan or the Indian subcontinent).
 2. The ownership must be real, substantial and continuing.
 3. The owner must have and exercise control over the business decisions.
 4. Must perform a useful business function according to custom and practice in the industry; or
- c. Be a Historically Black College or University (HBCU).
- d. In the case of Small Business Concerns (SBEs), any business entity, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria and size standards set forth in 13 CFR Part 121.
- e. In the case of Small Business in a Rural Area (SBRA), any business entity meeting the definition of a small business (e), and is located and conducts its principle operations in a geographic area (County or parish) listed in the Small Business Administration's Listing of Non-Metropolitan Counties by State.

Additional information may be required to prove ownership and control if there is reasonable cause to believe that a firm doing business is not a legitimate DBE. Such information may include, but not be limited to:

- The certificate described above,
- Names and addresses of legal owners including race, gender, percentage of ownership, percentage of control and the date each owner became an owner of the firm,
- Financial, banking and credit information,
- Whether the firm has ever been denied certification as an MBE/WBE by SBA, a State, or Federal agency and, if so, when and by whom, and
- Other information demonstrating ownership and control.

Drinking Water Revolving Loan Fund Program • Guidance for Submitting the
DISADVANTAGED BUSINESS ENTERPRISE (DBE)
ATTACHMENT A - CERTIFICATION SOURCES

**LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS • OFFICE OF PUBLIC
HEALTH**

The following is a list of Federal, State and local agencies that have a Disadvantaged Business Enterprise Program in place. These agencies may be able to assist Bidders/Prime Contractors in locating certified DBEs for potential subcontracting opportunities and in order to meet the DWRLF DBE obligations.

State of Louisiana Unified Certification Program (UCP) – by LDOTD (includes some of the below LA agencies in a single search)

<http://www8.dotd.louisiana.gov/UCP/UCPSearch.aspx>

Louisiana Department of Transportation & Development

Post Office Box 94245

Baton Rouge, Louisiana 70804-9245

Remy Graves

(225) 379-1762 (telephone)

remy.graves@la.gov

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Administration/Compliance/Pages/DBE_Admin_Unit.aspx

U.S. Small Business Administration

<https://www.sba.gov/category/navigation-structure/starting-managing-business/starting-business/choose-register-your-busi>

Louisiana Minority Business Council (LAMBC)

Phala Mire, President/MBOC Administrator

(504) 299-2960

www.lambc.org/Certification.aspx

Women's Business Enterprise Council South

Blanca Robinson, President

(504) 830-0149

www.wbecsouth.org/

City of New Orleans

Alvin Porter, DBE Coordinator

(504) 658-4235

agporter@cityofno.com

New Orleans Sewerage and Water Board

Disadvantaged Business Program

Alton DeLarge, Program Director

(504) 585-2112

adelarge@swbno.org

City of Shreveport Fair Share Program

Karen Barnes

(318) 673-5060

Karen.barnes@ci.shreveport.la.us

Southwest LA Partnership for Economic Development
Liz Deville
(337) 433-3632
ldeville@allianceswla.org

New Orleans International Airport
Post Office Box 20007
New Orleans, Louisiana 70141
Philistine Ferrand
(504) 303-7611 (telephone)
(504) 303-7614 (fax)
philisti@flymsy.com
<http://www.flymsy.com/dbe-program>

Orleans Levee District
6508 Spanish Fort Blvd.
New Orleans, Louisiana 70124
Joan M. Coats, DBE Liaison Officer
(504) 286-8130 (telephone)
(504) 286-8131 (fax)

Regional Transit Authority
2817 Canal Street
New Orleans, Louisiana 70119
Janice Abadie, DBE Compliance Manager
(504) 827-8308 (telephone)
<http://www.norta.com/>
jabadie@norta.com

Louisiana Economic Development
P.O. Box 94185
Baton Rouge, La 70804
John W. Matthews, Jr.
(225) 342-1181
(225) 342-9390 Fax
John.Matthews@LA.GOV

LA Department of Environmental Quality
Clean Water SRF Program
Jonathan McFarland, P.E.,
Business and Community Outreach and Incentives
DBE Coordinator Telephone: (225) 219-3956
jonathan.mcfarland@la.gov

U.S. Department Of Commerce
Minority Business Development Agency
www.mbda.gov

U.S. Environmental Protection Agency
Suggested Resources for Identifying Small, Minority, and Women-Owned Businesses
<http://www2.epa.gov/resources-small-businesses>

DBE COMPLIANCE AGREEMENT

Louisiana Department Of Health And Hospitals · Office Of Public Health

By signing this document, Successful bidder hereby certifies and understands that:

1. It has not discriminated against any DBE firms in awarding subcontracts for this project.
2. The good faith efforts requirements under the Drinking Water Revolving Loan Fund (40 CFR 35.3575.d) are contractual obligations that must be fulfilled whether or not listed on these forms.
3. Successful bidders must submit all required forms and attachments. Failure to provide any information may prevent authorization to award contract by DHH.
4. Additional documentation to verify or clarify good faith efforts must be provided upon request.
5. Replacement of a subcontractor before contract award or during performance without: (a) obtaining the prior written consent of DHH, and (b) subsequent good faith efforts in selection of a replacement, is prohibited and a breach of contract.
6. In the absence of a formal contractual agreement between the prime contractor and DBE subcontractors, Form DBE5 - the DBE Letter of Intent shall be submitted for each subcontractor.

And, Executes this Compliance Agreement as:

Loan Recipient: _____

Address: _____

Phone Number: _____ Fax Number: _____

By: _____
Signature of Authorized Owner or Representative Title Date

Print Name: _____

Company Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

By: _____
Signature of Authorized Owner or Representative Title Date

Print Name: _____

DBE CONTRACTOR DATA

Louisiana Department Of Health And Hospitals · Office Of Public Health

Loan Recipient Name¹: _____ Loan/PWSID #²: _____
 Brief Contract Description³: _____ DHH Contract #⁴: _____

	DBE Prime/Sub Contractor Name / Address Telephone / Fax Numbers ⁵	Contract Amount (\$) ⁶	Description and Category of Work ⁷	Disadvantaged Business Enterprise (DBE) Status ⁸ (Check all that apply)	Federal Tax ID# ⁹
1			Supplies Equipment Services Construction	Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)	
2			Supplies Equipment Services Construction	Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)	
3			Supplies Equipment Services Construction	Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)	
4			Supplies Equipment Services Construction	Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)	
5			Supplies Equipment Services Construction	Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)	

All written contract and/or purchase agreements with above contractors **MUST** be submitted with this form. If it is a purchase agreement only, or if there is no written agreement, then **Form DBE5** must be submitted.

Attach extra sheets as necessary for additional contractors and subcontractors.

* Indicate if the subcontractor is going to hire other subcontractors. If so, an additional sheet listing them is required.

I hereby certify that the above information is true and correct and that I will notify DHH, in writing, of any changes that occur prior to completion of the work.

Loan Recipient: _____ Date: _____
 (Signature of Authorized Representative)

Prime Contractor: _____ Date: _____
 (Signature of Authorized Representative)

Drinking Water Revolving Loan Fund Program • FORM DBE2
INSTRUCTIONS FOR THE DBE CONTRACTOR DATA FORM

Louisiana Department Of Health And Hospitals · Office Of Public Health

This form **MUST** be submitted to DHH before the first payment request to the contractor will be processed.

All written contract and/or purchase agreements with above contractors **MUST** be submitted with this form. If it is a purchase agreement only, or if there is no written agreement, then Form DBE5 must be submitted.

Attach extra sheets as necessary for additional contractors and subcontractors. * Indicate if the subcontractor is going to hire other subcontractors. If so, an additional sheet listing them is required. Replacement, substitution or addition of DBE firms must be handled in conformance with the contract documents.

1. **LOAN RECIPIENT:** Indicate the name of the loan recipient as listed on the contractual documents.
2. **PROJECT-CONTRACT NUMBER:** Enter the project-contract number for this project as assigned by DHH. This number is usually the same as the PWSID for the water system with an additional -01 after, designating the first loan made to the system.
3. **BRIEF CONTRACT DESCRIPTION:** Briefly describe the work to be performed under the contract.
4. **DHH CONTRACT #:** Indicate the number given to this contract by DHH.
5. **DBE PRIME/ SUB CONTRACTOR NAME / ADDRESS / TELEPHONE / FAX NUMBERS:** List the names and all contact information of the DBE prime and DBE sub contractors expected to perform work during the construction of the project under the designated contract. * Also, indicate if the subcontractor is going to hire other DBE sub-subcontractors. If so, identify those sub-subcontractors and provide the same requested information.
6. **CONTRACT AMOUNT:** Indicate the dollar amount for the contract and each subcontract.
7. **DESCRIPTION AND CATEGORY OF WORK:** Describe the work to be performed by the contractor and each subcontractor. Then check the appropriate category of work to be performed.
8. **DBE STATUS:** Indicate the appropriate DBE status of the contractor and each subcontractor listed in Item 5. Note: Designations should be consistent with how firms were identified during solicitations. List all designations that apply.
9. **FEDERAL TAX ID #:** : Indicate the Federal Tax ID number of the contractor and each subcontractor.

Drinking Water Revolving Loan Fund Program • FORM DBE3
DBE SUBCONTRACTOR CONTACT LOG

Louisiana Department Of Health And Hospitals · Office Of Public Health

Bidder Name: _____

Project Name: _____

Bidders should record their contacts with potential DBE subcontractors through the use of this log. Additional forms may be copied if needed.

* Indicate if a subcontractor is going to hire other subcontractors. If so, an additional sheet listing them is required.

** Bidders **MUST** attach copies of all faxes and/or letters sent to DBEs in order to solicit quotations.

	DBE Subcontractor Name / Address *	Telephone / Fax Number	DBE Status (Check all that apply)	Phone Contact		Contact Made?	Will Submit Quote?	Received Quote?	Notes
				Date of Fax / Letter **	Date of Call				
1			Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)						
2			Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)						
3			Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)						
4			Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)						
5			Minority (MBE) Black Native American Hispanic Asian Woman (WBE) Small (SBE) Small Rural Area (SBRA)						

DBE SUBCONTRACTOR BIDS LIST

Louisiana Department Of Health And Hospitals · Office Of Public Health

Bidder Name: _____

Project: _____

Please list below all bids received from DBE firms and provide the requested information.

* Indicate if the subcontractor is going to hire other subcontractors. If so, an additional sheet listing them is required.

	DBE Subcontractor Name *	Description and Category of Work	Bid Amount	Bid to be Used?	Reason for Rejection
1		Supplies Equipment Services Construction		Yes No	
2		Supplies Equipment Services Construction		Yes No	
3		Supplies Equipment Services Construction		Yes No	
4		Supplies Equipment Services Construction		Yes No	
5		Supplies Equipment Services Construction		Yes No	
6		Supplies Equipment Services Construction		Yes No	
7		Supplies Equipment Services Construction		Yes No	

DBE LETTER OF INTENT

Louisiana Department Of Health And Hospitals · Office Of Public Health

To be used in lieu of a Contract Agreement between a Contractor and Disadvantaged Business Enterprise (DBE) firm.

Prime Contractor: _____

Address: _____

Phone Number: _____ Fax Number: _____

Subcontractor: _____

Address: _____

Phone Number: _____ Fax Number: _____

DBE Status (Check all that apply):

Minority (MBE) Black Native American Hispanic Asian
Woman (WBE) Small (SBE) Small Rural Area (SBRA)

Amount of Agreement: _____

Description of work to be performed under agreement with DBE firm:

Contractor intends to utilize the above named DBE firm for work and amount indicated above.

Contractor: _____
Signature of Authorized Owner or Representative Title Date

Print Name: _____

DBE Firm: _____
Signature of Authorized Owner or Representative Title Date

Print Name: _____

[Code of Federal Regulations]

[Title 29 Volume 1]

[Revised as of July 1, 2008]

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[Page 115-121]

TITLE 29--LABOR

PART 5 LABOR STANDARDS PROVISIONS APPLICABLE TO CONTRACTS COVERING FEDERALLY FINANCED AND ASSISTED CONSTRUCTION (ALSO LABOR STANDARDS)

Subpart A - Davis-Bacon and Related Acts Provisions and Procedures

Sec. 5.5 Contract provisions and related matters.

(a) The Louisiana Department of Health and Hospitals requires the contracting officer to 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 public building or public work, or building or work 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 Sec. 5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, Provided, That such modifications are first approved by the Department of Labor):

(1) Minimum wages. (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), 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 apart 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 Sec. 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.

(ii)(A) The contracting officer 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 contracting officer shall approve 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 contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount

designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(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 Jefferson Parish Waterworks shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to 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 (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the Louisiana Department of Health and Hospitals 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 (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). 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 Louisiana Department of Health and Hospitals if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the Louisiana Department of Health and Hospitals. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR Sec. 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (i.e. 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 Website at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. They may also be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. 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 Louisiana Department of Health

and Hospitals if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the Louisiana Department of Health and Hospitals, 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 require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(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 maintained under Sec. 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 Louisiana Department of Health

and Hospitals 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 Louisiana Department of Health and Hospitals may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize

apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Louisiana Department of Health and Hospitals may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor

shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 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 the contracting agency, 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.

(b) Contract Work Hours and Safety Standards Act. The Assistant Secretary, or his duly authorized representative, of the Louisiana Department of Health and Hospitals shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(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 Sec. 5.5(a) or 4.6 of part 4 of this title. 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 Jefferson Parish Waterworks shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any 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 (b)(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 (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in Sec. 5.1, the Assistant Secretary, or his duly authorized representative, of the Louisiana Department of Health and Hospitals shall cause or require the contracting officer to 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 Assistant Secretary, or his duly authorized representative, of the Louisiana Department of Health and Hospitals shall cause or require the contracting officer to 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 Louisiana Department of Health and Hospitals and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

(d) Health and Safety: The provisions of this paragraph are applicable only where the amount of the prime contract exceeds \$100,000.00.

(1) No laborer or mechanic shall be required to work in surroundings or underworking conditions which are unsanitary, hazardous, or dangerous to his/her health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, 40 USC 3701 et seq.

(3) The Contractor shall include the provisions of this paragraph in every subcontract so that such provisions are binding on each subcontractor. The Contractor shall take such action with respect to any subcontract, as the Secretary of Labor shall direct as a means of enforcing such provisions.

Drinking Water Revolving Loan Fund Program • Guidance for Including the
REQUIRED CLAUSES FOR CONTRACT DOCUMENTS

**LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS • OFFICE OF PUBLIC
HEALTH**

The following three clauses must be included verbatim in the bid/contract documents to satisfy the federal cross cutting laws. The complete verbatim statements may be found below.

- I. Equal Opportunity Clause: 40 CFR PART 8, 1-7
- II. Historical Preservation Clause: 36 CFR PART 800
- III. Endangered Species Clause: Endangered Species Act Of 1973, As Amended

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, will promptly notify the Louisiana Department of Health and Hospitals - Office of Public Health - Drinking Water Revolving Loan Fund (LDHH-OPH-DWRLF) Program.

After consulting with the appropriate State and Federal agencies, the DWRLF Program 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, will promptly notify the Louisiana Department of Health and Hospitals - Office of Public Health - Drinking Water Revolving Loan Fund (LDHH-OPH-DWRLF) Program.

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

Executive Order 11246
Equal employment opportunity

Source: The provisions of Executive Order 11246 of Sept. 24, 1965, appear at 30 FR 12319, 12935, 3 CFR, 1964-1965 Comp., p. 339, unless otherwise noted.

Under and by virtue of the authority vested in me as President of the United States by the Constitution and statutes of the United States, it is ordered as follows:

Part I--Nondiscrimination in Government Employment

[Part I superseded by Executive Order 11478 of Aug. 8, 1969, 34 FR 12985, 3 CFR, 1966-1970 Comp., p. 803]

Part II--Nondiscrimination in Employment by Government Contractors and Subcontractors

Subpart A--Duties of the Secretary of Labor

Sec. 201. The Secretary of Labor shall be responsible for the administration and enforcement of Parts II and III of this Order. The Secretary shall adopt such rules and regulations and issue such orders as are deemed necessary and appropriate to achieve the purposes of Parts II and III of this Order.

[Sec. 201 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Subpart B--Contractors' Agreements

Sec. 202. Except in contracts exempted in accordance with Section 204 of this Order, all Government contracting agencies shall include in every Government contract hereafter entered into the following provisions:

"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 nondiscrimination 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 workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, 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 Sept. 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 nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, 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 Sept. 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 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 may be directed by the Secretary of Labor 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, the contractor may request the United States to enter into such litigation to protect the interests of the United States."

[Sec. 202 amended by Executive Order 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684; Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 203. (a) Each contractor having a contract containing the provisions prescribed in Section 202 shall file, and shall cause each of his subcontractors to file, Compliance Reports with the contracting agency or the Secretary of Labor as may be directed. Compliance Reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.

(b) Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this Order, or any preceding similar Executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, Compliance Reports prior to or as an initial part of their bid or negotiation of a contract.

(c) Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the Compliance Report shall include such information as to such labor union's or agency's practices and policies affecting compliance as the Secretary of Labor may prescribe: Provided, That to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify to the Secretary of Labor as part of its Compliance Report and shall set forth what efforts he has made to obtain such information.

(d) The Secretary of Labor may direct that any bidder or prospective contractor or subcontractor shall submit, as part of his Compliance Report, a statement in writing, signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training, with which the bidder or prospective contractor deals, with supporting information, to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this order or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and provisions of the order. In the event that the union, or the agency shall refuse to execute such a statement, the Compliance Report shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the Secretary of Labor may require.

[Sec. 203 amended by Executive Order 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684.; Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 204. The Secretary of Labor may, when he deems that special circumstances in the national interest so require, exempt a contracting agency from the requirement of including any or all of the provisions of Section 202 of this Order in any specific contract, subcontract, or purchase order. The Secretary of Labor may, by rule or regulation, also exempt certain classes of contracts, subcontracts, or purchase orders (1) whenever work is to be or has been performed outside the United States and no recruitment of workers within the limits of the United States is involved; (2) for standard commercial supplies or raw materials; (3) involving less than specified amounts of money or specified numbers of workers; or (4) to the extent that they involve subcontracts below a specified tier. The Secretary of Labor may also provide, by rule, regulation, or order, for the exemption of facilities of a contractor which are in all respects separate and distinct from activities of the contractor related to the performance of the contract: Provided, That such an exemption will not interfere with or impede the effectuation of the purposes of this Order: And provided further, That in the absence of such an exemption all facilities shall be covered by the provisions of this Order.

Subpart C--Powers and Duties of the Secretary of Labor and the Contracting Agencies

Sec. 205. The Secretary of Labor shall be responsible for securing compliance by all Government contractors and subcontractors with this Order and any implementing rules or regulations. All contracting agencies shall comply with the terms of this Order and any implementing rules, regulations, or orders of the Secretary of Labor. Contracting agencies shall cooperate with the Secretary of Labor and shall furnish such information and assistance as the Secretary may require.

[Sec. 205 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 206. (a) The Secretary of Labor may investigate the employment practices of any Government contractor or subcontractor to determine whether or not the contractual provisions specified in Section 202 of this Order have been violated. Such investigation shall be conducted in accordance with the procedures established by the Secretary of Labor.

(b) The Secretary of Labor may receive and investigate complaints by employees or prospective employees of a Government contractor or subcontractor which allege discrimination contrary to the contractual provisions specified in Section 202 of this Order.

[Sec. 206 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 207. The Secretary of Labor shall use his best efforts, directly and through interested Federal, State, and local agencies, contractors, and all other available instrumentalities to cause any labor union engaged in work under Government contracts or any agency referring workers or providing or supervising apprenticeship or training for or in the course of such work to cooperate in the implementation of the purposes of this Order. The Secretary of Labor shall, in appropriate cases, notify the Equal Employment Opportunity Commission, the Department of Justice, or other appropriate Federal agencies whenever it has reason to believe that the practices of any such labor organization or agency violate Title VI or Title VII of the Civil Rights Act of 1964 or other provision of Federal law.

[Sec. 207 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 208. (a) The Secretary of Labor, or any agency, officer, or employee in the executive branch of the Government designated by rule, regulation, or order of the Secretary, may hold such hearings, public or private, as the Secretary may deem advisable for compliance, enforcement, or educational purposes.

(b) The Secretary of Labor may hold, or cause to be held, hearings in accordance with Subsection (a) of this Section prior to imposing, ordering, or recommending the imposition of penalties and sanctions under this Order. No order for debarment of any contractor from further Government contracts under Section 209(a)(6) shall be made without affording the contractor an opportunity for a hearing.

Subpart D--Sanctions and Penalties

Sec. 209. (a) In accordance with such rules, regulations, or orders as the Secretary of Labor may issue or adopt, the Secretary may:

(1) Publish, or cause to be published, the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this Order or of the rules, regulations, and orders of the Secretary of Labor.

(2) Recommend to the Department of Justice that, in cases in which there is substantial or material violation or the threat of substantial or material violation of the contractual provisions set forth in Section 202 of this Order, appropriate proceedings be brought to enforce those provisions, including the enjoining, within the limitations of applicable law, of organizations, individuals, or groups who prevent directly or indirectly, or seek to prevent directly or indirectly, compliance with the provisions of this Order.

(3) Recommend to the Equal Employment Opportunity Commission or the Department of Justice that appropriate proceedings be instituted under Title VII of the Civil Rights Act of 1964.

(4) Recommend to the Department of Justice that criminal proceedings be brought for the furnishing of false information to any contracting agency or to the Secretary of Labor as the case may be.

(5) After consulting with the contracting agency, direct the contracting agency to cancel, terminate, suspend, or cause to be cancelled, terminated, or suspended, any contract, or any portion or portions thereof, for failure of the contractor or subcontractor to comply with equal employment opportunity provisions of the contract. Contracts may be cancelled, terminated, or suspended absolutely or continuance of contracts may be conditioned upon a program for future compliance approved by the Secretary of Labor.

(6) Provide that any contracting agency shall refrain from entering into further contracts, or extensions or other modifications of existing contracts, with any noncomplying contractor, until such contractor has satisfied the Secretary of Labor that such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this Order.

(b) Pursuant to rules and regulations prescribed by the Secretary of Labor, the Secretary shall make reasonable efforts, within a reasonable time limitation, to secure compliance with the contract provisions of this Order by methods of conference, conciliation, mediation, and persuasion before proceedings shall be instituted under subsection (a)(2) of this Section, or before a contract shall be cancelled or terminated in whole or in part under subsection (a)(5) of this Section.

[Sec. 209 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 210. Whenever the Secretary of Labor makes a determination under Section 209, the Secretary shall promptly notify the appropriate agency. The agency shall take the action directed by the Secretary and shall report the results of the action it has taken to the Secretary of Labor within such time as the Secretary shall specify. If the contracting agency fails to take the action directed within thirty days, the Secretary may take the action directly.

[Sec. 210 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 211. If the Secretary shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless the bidder or prospective contractor has satisfactorily complied with the provisions of this Order or submits a program for compliance acceptable to the Secretary of Labor.

[Sec. 211 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 212. When a contract has been cancelled or terminated under Section 209(a)(5) or a contractor has been debarred from further Government contracts under Section 209(a)(6) of this Order, because of noncompliance with the contract provisions specified in Section 202 of this Order, the Secretary of Labor shall promptly notify the Comptroller General of the United States.

[Sec. 212 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Subpart E--Certificates of Merit

Sec. 213. The Secretary of Labor may provide for issuance of a United States Government Certificate of Merit to employers or labor unions, or other agencies which are or may hereafter be engaged in work under Government contracts, if the Secretary is satisfied that the personnel and employment practices of the employer, or that the personnel, training, apprenticeship, membership, grievance and representation, upgrading, and other practices and policies of the labor union or other agency conform to the purposes and provisions of this Order.

Sec. 214. Any Certificate of Merit may at any time be suspended or revoked by the Secretary of Labor if the holder thereof, in the judgment of the Secretary, has failed to comply with the provisions of this Order.

Sec. 215. The Secretary of Labor may provide for the exemption of any employer, labor union, or other agency from any reporting requirements imposed under or pursuant to this Order if such employer, labor union, or other agency has been awarded a Certificate of Merit which has not been suspended or revoked.

Part III--Nondiscrimination Provisions in Federally Assisted Construction Contracts

Sec. 301. Each executive department and agency which administers a program involving Federal financial assistance shall require as a condition for the approval of any grant, contract, loan, insurance, or guarantee thereunder, which may involve a construction contract, that the applicant for Federal assistance undertake and agree to incorporate, or cause to be incorporated, into all construction contracts paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to such grant, contract, loan, insurance, or guarantee, or

undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the provisions prescribed for Government contracts by Section 202 of this Order or such modification thereof, preserving in substance the contractor's obligations thereunder, as may be approved by the Secretary of Labor, together with such additional provisions as the Secretary deems appropriate to establish and protect the interest of the United States in the enforcement of those obligations. Each such applicant shall also undertake and agree (1) to assist and cooperate actively with the Secretary of Labor in obtaining the compliance of contractors and subcontractors with those contract provisions and with the rules, regulations and relevant orders of the Secretary, (2) to obtain and to furnish to the Secretary of Labor such information as the Secretary may require for the supervision of such compliance, (3) to carry out sanctions and penalties for violation of such obligations imposed upon contractors and subcontractors by the Secretary of Labor pursuant to Part II, Subpart D, of this Order, and (4) to refrain from entering into any contract subject to this Order, or extension or other modification of such a contract with a contractor debarred from Government contracts under Part II, Subpart D, of this Order.

[Sec. 301 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 302. (a) "Construction contract" as used in this Order means any contract for the construction, rehabilitation, alteration, conversion, extension, or repair of buildings, highways, or other improvements to real property.

(b) The provisions of Part II of this Order shall apply to such construction contracts, and for purposes of such application the administering department or agency shall be considered the contracting agency referred to therein.

(c) The term "applicant" as used in this Order means an applicant for Federal assistance or, as determined by agency regulation, other program participant, with respect to whom an application for any grant, contract, loan, insurance, or guarantee is not finally acted upon prior to the effective date of this Part, and it includes such an applicant after he becomes a recipient of such Federal assistance.

Sec. 303. (a) The Secretary of Labor shall be responsible for obtaining the compliance of such applicants with their undertakings under this Order. Each administering department and agency is directed to cooperate with the Secretary of Labor and to furnish the Secretary such information and assistance as the Secretary may require in the performance of the Secretary's functions under this Order.

(b) In the event an applicant fails and refuses to comply with the applicant's undertakings pursuant to this Order, the Secretary of Labor may, after consulting with the administering department or agency, take any or all of the following actions: (1) direct any administering department or agency to cancel, terminate, or suspend in whole or in part the agreement, contract or other arrangement with such applicant with respect to which the failure or refusal occurred; (2) direct any administering department or agency to refrain from extending any further assistance to the applicant under the program with respect to which the failure or refusal occurred until satisfactory assurance of future compliance has been received by the Secretary of Labor from such applicant; and (3) refer the case to the Department of Justice or the Equal Employment Opportunity Commission for appropriate law enforcement or other proceedings.

(c) In no case shall action be taken with respect to an applicant pursuant to clause (1) or (2) of subsection (b) without notice and opportunity for hearing.

[Sec. 303 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 304. Any executive department or agency which imposes by rule, regulation, or order requirements of nondiscrimination in employment, other than requirements imposed pursuant to this Order, may delegate to the Secretary of Labor by agreement such responsibilities with respect to compliance standards, reports, and procedures as would tend to bring the administration of such requirements into conformity with the administration of requirements imposed under this Order: Provided, That actions to effect compliance by recipients of Federal financial assistance with requirements imposed pursuant to Title VI of the Civil Rights Act of 1964 shall be taken in conformity with the procedures and limitations prescribed in Section 602 thereof and the regulations of the administering department or agency issued thereunder.

Part IV--Miscellaneous

Sec. 401. The Secretary of Labor may delegate to any officer, agency, or employee in the Executive branch of the Government, any function or duty of the Secretary under Parts II and III of this Order.

[Sec. 401 amended by Executive Order 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Sec. 402. The Secretary of Labor shall provide administrative support for the execution of the program known as the "Plans for Progress."

Sec. 403. (a) Executive Orders Nos. 10590 (January 19, 1955), 10722 (August 5, 1957), 10925 (March 6, 1961), 11114 (June 22, 1963), and 11162 (July 28, 1964), are hereby superseded and the President's Committee on Equal Employment Opportunity established by Executive Order No. 10925 is hereby abolished. All records and property in the custody of the Committee shall be transferred to the Office of Personnel Management and the Secretary of Labor, as appropriate.

(b) Nothing in this Order shall be deemed to relieve any person of any obligation assumed or imposed under or pursuant to any Executive Order superseded by this Order. All rules, regulations, orders, instructions, designations, and other directives issued by the President's Committee on Equal Employment Opportunity and those issued by the heads of various departments or agencies under or pursuant to any of the Executive orders superseded by this Order, shall, to the extent that they are not inconsistent with this Order, remain in full force and effect unless and until revoked or superseded by appropriate authority. References in such directives to provisions of the superseded orders shall be deemed to be references to the comparable provisions of this Order.

[Sec. 403 amended by Executive Order 12107 of Dec. 28, 1978, 44 FR 1055, 3 CFR, 1978 Comp., p. 264]

Sec. 404. The General Services Administration shall take appropriate action to revise the standard Government contract forms to accord with the provisions of this Order and of the rules and regulations of the Secretary of Labor.

Sec. 405. This Order shall become effective thirty days after the date of this Order.

Executive Order 11625

Prescribing additional arrangements for developing and coordinating a national program for minority business enterprise

Source: The provisions of Executive Order 11625 of Oct. 13, 1971, appear at 36 FR 19967, 3 CFR, 1971-1975 Comp., p. 616, unless otherwise noted.

The opportunity for full participation in our free enterprise system by socially and economically disadvantaged persons is essential if we are to obtain social and economic justice for such persons and improve the functioning of our national economy.

The Office of Minority Business Enterprise, established in 1969, greatly facilitated the strengthening and expansion of our minority enterprise program. In order to take full advantage of resources and opportunities in the minority enterprise field, we now must build on this foundation. One important way of improving our efforts is by clarifying the authority of the Secretary of Commerce (a) to implement Federal policy in support of the minority business enterprise program; (b) provide additional technical and management assistance to disadvantaged businesses; (c) to assist in demonstration projects; and (d) to coordinate the participation of all Federal departments and agencies in an increased minority enterprise effort.

NOW, THEREFORE, by virtue of the authority vested in me as President of the United States, it is ordered as follows:

Section 1. *Functions of the Secretary of Commerce.* (a) The Secretary of Commerce (hereinafter referred to as "the Secretary") shall--

- (1) Coordinate as consistent with law the plans, programs, and operations of the Federal Government which affect or may contribute to the establishment, preservation, and strengthening of minority business enterprise.
- (2) Promote the mobilization of activities and resources of State and local governments, businesses and trade associations, universities, foundations, professional organizations, and volunteer and other groups towards the growth of minority business enterprises, and facilitate the coordination of the efforts of these groups with those of Federal departments and agencies.
- (3) Establish a center for the development, collection, summarization, and dissemination of information that will be helpful to persons and organizations throughout the Nation in undertaking or promoting the establishment and successful operation of minority business enterprise.
- (4) Within constraints of law and appropriations therefore, and according to his discretion, provide financial assistance to public and private organizations so that they may render technical and management assistance to minority business enterprises, and defray all or part of the costs of pilot or demonstration projects conducted by public or private agencies or organizations which are designed to overcome the special problems of minority business enterprises or otherwise to further the purposes of this order.

(b) The Secretary, as he deems necessary or appropriate to enable him to better fulfill the responsibilities vested in him by subsection (a), may--

(1) With the participation of other Federal departments and agencies as appropriate, develop comprehensive plans and specific program goals for the minority enterprise program; establish regular performance monitoring and reporting systems to assure that goals are being achieved; and evaluate the impact of Federal support in achieving the objectives established by this order.

(2) Require a coordinated review of all proposed Federal training and technical assistance activities in direct support of the minority enterprise program to assure consistency with program goals and to avoid duplication.

(3) Convene, for purposes of coordination, meetings of the heads of such departments and agencies, or their designees, whose programs and activities may affect or contribute to the purposes of this order.

(4) Convene business leaders, educators, and other representatives of the private sector who are engaged in assisting the development of minority business enterprise or who could contribute to its development, for the purpose of proposing, evaluating and coordinating governmental and private activities in furtherance of the objectives of this order.

(5) Confer with and advise officials of State and local governments.

(6) Provide the managerial and organizational framework through which joint or collaborative undertakings with Federal departments or agencies or private organizations can be planned and implemented.

(7) Recommend appropriate legislative or executive actions.

Sec. 2. [Revoked]

[Sec. 2 revoked by Executive Order 12007 of Aug. 22, 1977, 42 FR 42839, 3 CFR, 1977 Comp., p. 139]

Sec. 3. *Responsibilities of Other Federal Departments and Agencies.* (a) The head of each Federal department and agency, or a representative designated by him, when and in the manner so requested by the Secretary shall furnish information, assistance, and reports to, and shall otherwise cooperate with, the Secretary in the performance of his functions hereunder.

(b) The head of each Federal department or agency shall, when so requested by the Secretary, designate his Under Secretary or such other similar official to have primary and continuing responsibility for the participation and cooperation of that department or agency in matters concerning minority business enterprise.

(c) The officials designated under the preceding paragraph, when so requested, shall review and report to the Secretary upon the policies and programs of the minority business enterprise program, and shall keep the Secretary informed of all proposed budgets, plans and programs of his department or agency affecting minority business enterprise.

(d) The head of each Federal department or agency, or a representative designated by him, shall, to the extent provided under regulations issued by the Secretary after consultation with the official designated in paragraph (b) above, report to the Secretary on any activity that falls within the scope of the minority business enterprise program as defined herein and in those regulations.

(e) Each Federal department or agency shall, within constraints of law and appropriations therefore, continue all current efforts to foster and promote minority business enterprises and to support the program herein set forth, and shall cooperate with the Secretary of Commerce in increasing the total Federal effort.

Sec. 4. Reports. The Secretary shall, not later than 120 days after the close of each fiscal year, submit to the President a full report of his activities hereunder during the previous fiscal year. Further, the Secretary shall, from time to time, submit to the President his recommendations for legislation or other action as he deems desirable to promote the purposes of this order. Each Federal department or agency shall report to the Secretary as hereinabove provided on a timely basis so that the Secretary may consider such reports for his report and recommendations to the President. Each Federal department or agency shall develop and implement systematic data collection processes which will provide to the Office of Minority Business Enterprise Information Center current data helpful in evaluating and promoting the efforts herein described.

Sec. 5. Policies and Standards. The Secretary may establish such policies, standards, definitions, criteria, and procedures to govern the implementation, interpretation, and application of this order, and generally perform such functions and take such steps as he may deem to be necessary or appropriate to achieve the purposes and carry out the provisions hereof.

Sec. 6. Definitions. For purposes of this order, the following definitions shall apply:

(a) "Minority business enterprise" means a business enterprise that is owned or controlled by one or more socially or economically disadvantaged persons. Such disadvantage may arise from cultural, racial, chronic economic circumstances or background or other similar cause. Such persons include, but are not limited to, Negroes, Puerto Ricans, Spanish-speaking Americans, American Indians, Eskimos, and Aleuts.

(b) "State" means the States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the territories and possessions of the United States, and the Trust Territory of the Pacific Islands.

Sec. 7. Construction. Nothing in this order shall be construed as subjecting any function vested in, or assigned pursuant to law to, any Federal department or agency or head thereof to the authority of any other agency or office exclusively, or as abrogating or restricting any such function in any manner.

Sec. 8. Prior Executive Order. Executive Order No. 11458 of March 5, 1969, is hereby superseded.

Executive Order 12138

Creating a National Women's Business Enterprise Policy and prescribing arrangements for developing, coordinating and implementing a national program for women's business enterprise

Source: The provisions of Executive Order 12138 of May 18, 1979, appear at 44 FR 29637, 3 CFR, 1979 Comp., p. 393, unless otherwise noted.

In response to the findings of the Interagency Task Force on Women Business Owners and congressional findings that recognize:

1. the significant role which small business and women entrepreneurs can play in promoting full employment and balanced growth in our economy;
2. the many obstacles facing women entrepreneurs; and
3. the need to aid and stimulate women's business enterprise;

By the authority vested in me as President of the United States of America, in order to create a National Women's Business Enterprise Policy and to prescribe arrangements for developing, coordinating and implementing a national program for women's business enterprise, it is ordered as follows:

1-1. Responsibilities of the Federal Departments and Agencies.

1-101. Within the constraints of statutory authority and as otherwise permitted by law:

(a) Each department and agency of the Executive Branch shall take appropriate action to facilitate, preserve and strengthen women's business enterprise and to ensure full participation by women in the free enterprise system.

(b) Each department and agency shall take affirmative action in support of women's business enterprise in appropriate programs and activities including but not limited to:

- (1) management, technical, financial, and procurement assistance,
- (2) business-related education, training, counselling and information dissemination, and
- (3) procurement.

(c) Each department or agency empowered to extend Federal financial assistance to any program or activity shall issue regulations requiring the recipient of such assistance to take appropriate affirmative action in support of women's business enterprise and to prohibit actions or policies which discriminate against women's business enterprise on the ground of sex. For purposes of this subsection, Federal financial assistance means assistance extended by way of grant, cooperative agreement, loan or contract other than a contract of insurance of guaranty. These regulations shall prescribe sanctions for noncompliance. Unless otherwise specified by law, no agency sanctions shall be applied until the agency or department concerned has advised the appropriate person or persons of the failure to comply with its regulations and has determined that compliance cannot be secured by voluntary means.

1-102. For purposes of this Order, affirmative action may include, but is not limited to, creating or supporting new programs responsive to the special needs of women's business enterprise, establishing incentives to promote business or business-related opportunities for women's business enterprise,

collecting and disseminating information in support of women's business enterprise, and insuring to women's business enterprise knowledge of and ready access to business-related services and resources. If, in implementing this order, an agency undertakes to use or to require compliance with numerical set-asides, or similar measures, it shall state the purpose of such measure, and the measure shall be designed on the basis of pertinent factual findings of discrimination against women's business enterprise and the need for such measure.

1-103. In carrying out their responsibilities under Section 1-1, the departments and agencies shall consult the Department of Justice, and the Department of Justice shall provide legal guidance concerning these responsibilities.

1-2. Establishment of the Interagency Committee on Women's Business Enterprise.

1-201. To help insure that the actions ordered above are carried out in an effective manner, I hereby establish the Interagency Committee on Women's Business Enterprise (hereinafter called the Committee).

1-202. The Chairperson of the Committee (hereinafter called the Chairperson) shall be appointed by the President. The Chairperson shall be the presiding officer of the Committee and shall have such duties as prescribed in this Order or by the Committee in its rules of procedure. The Chairperson may also represent his or her department, agency or office on the Committee.

1-203. The Committee shall be composed of the Chairperson and other members appointed by the heads of departments and agencies from among high level policy-making officials. In making these appointments, the recommendations of the Chairperson shall be taken into consideration. The following departments and agencies and such other departments and agencies as the Chairperson shall select shall be members of the Committee: the Departments of Agriculture; Commerce; Defense; Energy; Health and Human Services; Housing and Urban Development; Interior; Justice; Labor; Transportation; Treasury; the Federal Trade Commission; General Services Administration; National Science Foundation; Office of Federal Procurement Policy; and the Small Business Administration. These members shall have a vote. Nonvoting members shall include the Executive Director of the Committee and at least one but no more than three representatives from the Executive Office of the President appointed by the President.

[Sec. 1-203 amended by Executive Order 12608 of Sept. 9, 1987, 52 FR 34617, 3 CFR, 1987 Comp., p. 245]

1-204. The Committee shall meet at least quarterly at the call of the Chairperson, and at such other times as may be determined to be useful according to the rules of procedure adopted by the Committee.

1-205. The Administrator of the Small Business Administration shall provide an Executive Director and adequate staff and administrative support for the Committee. The staff shall be located in the Office of the Chief Counsel for Advocacy of the Small Business Administration, or in such other office as may be established specifically to further the policies expressed herein. Nothing in this Section prohibits the use of other properly available funds and resources in support of the Committee.

1-3. *Functions of the Committee.* The Committee shall in a manner consistent with law:

1-301. Promote, coordinate and monitor the plans, programs and operations of the departments and agencies of the Executive Branch which may contribute to the establishment, preservation and strengthening of women's business enterprise. It may, as appropriate, develop comprehensive interagency plans and specific program goals for women's business enterprise with the cooperation of the departments and agencies.

1-302. Establish such policies, definitions, procedures and guidelines to govern the implementation, interpretation and application of this order, and generally perform such functions and take such steps as the Committee may deem to be necessary or appropriate to achieve the purposes and carry out the provisions hereof.

1-303. Promote the mobilization of activities and resources of State and local governments, business and trade associations, private industry, colleges and universities, foundations, professional organizations, and volunteer and other groups toward the growth of women's business enterprise, and facilitate the coordination of the efforts of these groups with those of the departments and agencies.

1-304. Make an annual assessment of the progress made in the Federal Government toward assisting women's business enterprise to enter the mainstream of business ownership and to provide recommendations for future actions to the President.

1-305. Convene and consult as necessary with persons inside and outside government to develop and promote new ideas concerning the development of women's business enterprise.

1-306. Consider the findings and recommendations of government and private sector investigations and studies of the problems of women entrepreneurs, and promote further research into such problems.

1-307. Design a comprehensive and innovative plan for a joint Federal and private sector effort to develop increased numbers of new women-owned businesses and larger and more successful women-owned businesses. The plan should set specific reasonable targets which can be achieved at reasonable and identifiable costs and should provide for the measurement of progress towards these targets at the end of two and five years. Related outcomes such as income and tax revenues generated, jobs created, new products and services introduced or new domestic or foreign markets created should also be projected and measured in relation to costs wherever possible. The Committee should submit the plan to the President for approval within six months of the effective date of this Order.

1-4. *Other Responsibilities of the Federal Departments and Agencies.*

1-401. The head of each department and agency shall designate a high level official to have the responsibility for the participation and cooperation of that department or agency in carrying out this Executive order. This person may be the same person who is the department or agency's representative to the Committee.

1-402. To the extent permitted by law, each department and agency upon request by the Chairperson shall furnish information, assistance and reports and otherwise cooperate with the Chairperson and the Committee in the performance of their functions hereunder. Each department or agency shall ensure that systematic data collection processes are capable of providing the Committee current data helpful in evaluating and promoting the efforts herein described.

1-403. The officials designated under Section 1-401, when so requested, shall review the policies and programs of the women's business enterprise program, and shall keep the Chairperson informed of proposed budget, plans and programs of their departments or agencies affecting women's business enterprise.

1-404. Each Federal department or agency, within constraints of law, shall continue current efforts to foster and promote women's business enterprise and to support the program herein set forth, and shall cooperate with the Chairperson and the Committee in increasing the total Federal effort.

1-5. *Reports.*

1-501. The Chairperson shall, promptly after the close of the fiscal year, submit to the President a full report of the activities of the Committee hereunder during the previous fiscal year. Further, the Chairperson shall, from time to time, submit to the President the Committee's recommendations for legislation or other action to promote the purposes of this Order.

1-502. Each Federal department and agency shall report to the Chairperson as hereinabove provided on a timely basis so that the Chairperson and the Committee can consider such reports for the Committee report to the President.

1-6. *Definitions.* For the purposes of this Order, the following definitions shall apply:

1-601. "Women-owned business" means a business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

1-602. "Women's business enterprise" means a woman-owned business or businesses or the efforts of a woman or women to establish, maintain or develop such a business or businesses.

1-603. Nothing in subsections 1-601 or 1-602 of this Section (1-6) should be construed to prohibit the use of other definitions of a woman-owned business or women's business enterprise by departments and agencies of the Executive Branch where other definitions are deemed reasonable and useful for any purpose not inconsistent with the purpose of this Order. Wherever feasible, departments and agencies should use the definition of a woman-owned business in subsection 1-601 above for monitoring performance with respect to women's business enterprise in order to assure comparability of data throughout the Federal Government.

1-7. *Construction.* Nothing in this Order shall be construed as limiting the meaning or effect of any existing Executive order.

Executive Order 12432

Minority business enterprise development

Source: The provisions of Executive Order 12432 of July 14, 1983, appear at 48 FR 32551, 3 CFR, 1983 Comp., p. 198, unless otherwise noted.

By virtue of the authority vested in me as President by the Constitution and laws of the United States of America, including Section 205(a) of the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 486(a)), in order to provide guidance and oversight for programs for the development of minority business enterprise pursuant to my statement of December 17, 1982 concerning Minority Business Development; and to implement the commitment of the Federal government to the goal of encouraging greater economic opportunity for minority entrepreneurs, it is hereby ordered as follows:

Section 1. *Minority Business Development Plans.* (a) Minority business enterprise development plans shall be developed by each Federal agency having substantial procurement or grantmaking authority. Such agencies shall submit these plans to the Cabinet Council on Commerce and Trade on an annual basis.

(b) These annual plans shall establish minority enterprise development objectives for the participating agencies and methods for encouraging both prime contractors and grantees to utilize minority business enterprises. The plans shall, to the extent possible, build upon the programs administered by the Minority Business Development Agency and the Small Business Administration, including the goals established pursuant to Public Law 95-507.

(c) The Secretary of Commerce and the Administrator of the Small Business Administration, in consultation with the Cabinet Council on Commerce and Trade, shall establish uniform guidelines for all Federal agencies to be utilized in establishing the minority business programs set forth in Section 2 of this Order.

(d) The participating agencies shall furnish an annual report regarding the implementation of their programs in such form as the Cabinet Council on Commerce and Trade may request, and at such time as the Secretary of Commerce shall designate.

(e) The Secretary of Commerce shall provide an annual report to the President, through the Cabinet Council on Commerce and Trade, on activities under this Order and agency implementation of minority business development programs.

Sec. 2. *Minority Business Development Responsibilities of Federal Agencies.* (a) To the extent permitted by law and consistent with its primary mission, each Federal agency which is required to develop a minority business development plan under Section 1 of this Order shall, to accomplish the objectives set forth in its plan, establish programs concerning provision of direct assistance, procurement assistance, and management and technical assistance to minority business enterprises.

(b) Each Federal agency shall, to the extent permitted by law and consistent with its primary mission, establish minority business development programs, consistent with Section 211 of Public Law 95-507, to develop and implement incentive techniques to encourage greater minority business subcontracting by Federal prime contractors.

(c) Each Federal agency shall encourage recipients of Federal grants and cooperative agreements to achieve a reasonable minority business participation in contracts let as a result of its grants and agreements. In cases where State and local governments are the recipients, such encouragement shall be consistent with principles of federalism.

(d) Each Federal agency shall provide the Cabinet Council on Commerce and Trade such information as it shall request from time to time concerning the agency's progress in implementing these programs.

Executive Order 12549

Debarment and suspension

Source: The provisions of Executive Order 12549 of Feb. 18, 1986, appear at 51 FR 6370, 3 CFR, 1986 Comp., p. 189, unless otherwise noted.

By the authority vested in me as President by the Constitution and laws of the United States of America, and in order to curb fraud, waste, and abuse in Federal programs, increase agency accountability, and ensure consistency among agency regulations concerning debarment and suspension of participants in Federal programs, it is hereby ordered that:

Section 1. (a) To the extent permitted by law and subject to the limitations in Section 1(c), Executive departments and agencies shall participate in a system for debarment and suspension from programs and activities involving Federal financial and nonfinancial assistance and benefits. Debarment or suspension of a participant in a program by one agency shall have government-wide effect.

(b) Activities covered by this Order include but are not limited to: grants, cooperative agreements, contracts of assistance, loans, and loan guarantees.

(c) This Order does not cover procurement programs and activities, direct Federal statutory entitlements or mandatory awards, direct awards to foreign governments or public international organizations, benefits to an individual as a personal entitlement, or Federal employment.

Sec. 2. To the extent permitted by law, Executive departments and agencies shall:

(a) Follow government-wide criteria and government-wide minimum due process procedures when they act to debar or suspend participants in affected programs.

(b) Send to the agency designated pursuant to Section 5 identifying information concerning debarred and suspended participants in affected programs, participants who have agreed to exclusion from participation, and participants declared ineligible under applicable law, including Executive Orders. This information shall be included in the list to be maintained pursuant to Section 5.

(c) Not allow a party to participate in any affected program if any Executive department or agency has debarred, suspended, or otherwise excluded (to the extent specified in the exclusion agreement) that party from participation in an affected program. An agency may grant an exception permitting a debarred, suspended, or excluded party to participate in a particular transaction upon a written determination by the agency head or authorized designee stating the reason(s) for deviating from this Presidential policy. However, I intend that exceptions to this policy should be granted only infrequently.

Sec. 3. Executive departments and agencies shall issue regulations governing their implementation of this Order that shall be consistent with the guidelines issued under Section 6. Proposed regulations shall be submitted to the Office of Management and Budget for review within four months of the date of the guidelines issued under Section 6. The Director of the Office of Management and Budget may return for reconsideration proposed regulations that the Director believes are inconsistent with the guidelines. Final regulations shall be published within twelve months of the date of the guidelines.

Sec. 4. There is hereby constituted the Interagency Committee on Debarment and Suspension, which shall monitor implementation of this Order. The Committee shall consist of representatives of agencies designated by the Director of the Office of Management and Budget.

Sec. 5. The Director of the Office of Management and Budget shall designate a Federal agency to perform the following functions: maintain a current list of all individuals and organizations excluded from program participation under this Order, periodically distribute the list to Federal agencies, and study the feasibility of automating the list; coordinate with the lead agency responsible for government-wide debarment and suspension of contractors; chair the Interagency Committee established by Section 4; and report periodically to the Director on implementation of this Order, with the first report due within two years of the date of the Order.

Sec. 6. The Director of the Office of Management and Budget is authorized to issue guidelines to Executive departments and agencies that govern which programs and activities are covered by this Order, prescribe government-wide criteria and government-wide minimum due process procedures, and set forth other related details for the effective administration of the guidelines.

Sec. 7. The Director of the Office of Management and Budget shall report to the President within three years of the date of this Order on Federal agency compliance with the Order, including the number of exceptions made under Section 2(c), and shall make recommendations as are appropriate further to curb fraud, waste, and abuse.

Executive Order 13202 of February 17, 2001, as amended by Executive Order 13208 of April 6, 2001

**Preservation of Open Competition and Government Neutrality
Towards Government Contractors' Labor Relations on
Federal and Federally Funded Construction Projects**

By the authority vested in me as President by the Constitution and laws of the United States of America, including the Federal Property and Administrative Services Act, 40 U.S.C. 471 *et seq.*, and in order to (1) promote and ensure open competition on Federal and federally funded or assisted construction projects; (2) maintain Government neutrality towards Government contractors' labor relations on Federal and federally funded or assisted construction projects; (3) reduce construction costs to the Federal Government and to the taxpayers; (4) expand job opportunities, especially for small and disadvantaged businesses; and (5) prevent discrimination against Government contractors or their employees based upon labor affiliation or lack thereof; thereby promoting the economical, nondiscriminatory, and efficient administration and completion of Federal and federally funded or assisted construction projects, it is hereby ordered that:

Section 1. To the extent permitted by law, any executive agency awarding any construction contract after the date of this order, or obligating funds pursuant to such a contract, shall ensure that neither the awarding Government authority nor any construction manager acting on behalf of the Government shall, in its bid specifications, project agreements, or other controlling documents:

- (a) Require or prohibit bidders, offerors, contractors, or subcontractors to enter into or adhere to agreements with one or more labor organizations, on the same or other related construction project(s); or
- (b) Otherwise discriminate against bidders, offerors, contractors, or subcontractors for becoming or refusing to become or remain signatories or otherwise to adhere to agreements with one or more labor organizations, on the same or other related construction project(s).
- (c) Nothing in this section shall prohibit contractors or subcontractors from voluntarily entering into agreements described in subsection (a).

Sec. 2. Contracts awarded before the date of this order, and subcontracts awarded pursuant to such contracts, whenever awarded, shall not be governed by this order.

Sec. 3. To the extent permitted by law, any executive agency issuing grants, providing financial assistance, or entering into cooperative agreements for construction projects, shall ensure that neither the bid specifications, project agreements, nor other controlling documents for construction contracts awarded after the date of this order by recipients of grants or financial assistance or by parties to cooperative agreements, nor those of any construction manager acting on their behalf, shall contain any of the requirements or prohibitions set forth in section 1(a) or (b) of this order.

Sec. 4. In the event that an awarding authority, a recipient of grants or financial assistance, a party to a cooperative agreement, or a construction manager acting on behalf of the foregoing, performs in a manner contrary to the provisions of sections 1 or 3 of this order, the executive agency awarding the contract, grant, or assistance shall take such action, consistent with law and regulation, as the agency determines may be appropriate.

Sec. 5. (a) The head of an executive agency may exempt a particular project, contract, subcontract, grant, or cooperative agreement from the requirements of any or all of the provisions of sections 1 and 3 of this order, if the agency head finds that special circumstances require an exemption in order to avert an imminent threat to public health or safety or to serve the national security.

(b) A finding of "special circumstances" under section 5(a) may not be based on the possibility or presence of a labor dispute concerning the use of contractors or subcontractors who are nonsignatories to, or otherwise do not adhere to, agreements with one or more labor organizations, or concerning employees on the project who are not members of or affiliated with a labor organization.

(c) The head of an executive agency, upon application of an awarding authority, a recipient of grants or financial assistance, a party to a cooperative agreement, or a construction manager acting on behalf of the foregoing, may exempt a particular project from the requirements of any or all of the provisions of sections 1 and 3 of this order, if the agency head finds: (i) that the awarding authority, recipient of grants or

financial assistance, party to a cooperative agreement, or construction manager acting on behalf of the foregoing had issued or was a party to, as of the date of this order, bid specifications, project agreements, agreements with one or more labor organizations, or other controlling documents with respect to that particular project, which contained any of the requirements or prohibitions set forth in sections 1(a) or (b) of this order; and (ii) that one or more construction contracts subject to such requirements or prohibitions had been awarded as of the date of this order.

Sec. 6. (a) The term “construction contract” as used in this order means any contract for the construction, rehabilitation, alteration, conversion, extension, or repair of buildings, highways, or other improvements to real property.

(b) The term “executive agency” as used in this order shall have the same meaning it has in 5 U.S.C. 105, excluding the General Accounting Office.

(c) The term “labor organization” as used in this order shall have the same meaning it has in 42 U.S.C. 2000e(d).

Sec. 7. With respect to Federal contracts, within 60 days of the issuance of this order, the Federal Acquisition Regulatory Council shall take whatever action is required to amend the Federal Acquisition Regulation in order to implement the provisions of this order.

Sec. 8. As it relates to project agreements, Executive Order 12836 of February 1, 1993, which, among other things, revoked Executive Order 12818 of October 23, 1992, is revoked.

Sec. 9. The Presidential Memorandum of June 5, 1997, entitled “Use of Project Labor Agreements for Federal Construction Projects” (the “Memorandum”), is also revoked.

Sec. 10. The heads of executive departments and agencies shall revoke expeditiously any orders, rules, regulations, guidelines, or policies implementing or enforcing the Memorandum or Executive Order 12836 of February 1, 1993, as it relates to project agreements, to the extent consistent with law.

Sec. 11. This order is intended only to improve the internal management of the executive branch and is not intended to, nor does it, create any right to administrative or judicial review, or any right, whether substantive or procedural, enforceable by any party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.

Executive Order 13208 - Amendment to Executive Order 13202, Preservation of Open Competition and Government Neutrality Towards Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects

Number 66 18717

04-11-01

[Federal Register: April 11, 2001 (Volume 66, Number 70)]

[Presidential Documents]

[Page 18717-18718]

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

[DOCID:fr11ap01-135]

Presidential Documents

Title 3--

The President

[[Page 18717]]

Executive Order 13208 of April 6, 2001

Amendment to Executive Order 13202, Preservation of Open Competition and Government Neutrality Towards Government Contractors' Labor Relations on Federal and Federally Funded Construction Projects

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the Federal Property and Administrative Services Act, 40 U.S.C. 471 et seq., and in order to (1) promote and ensure open competition on Federal and federally funded or assisted construction projects; (2) maintain Government neutrality towards Government contractors' labor relations on Federal and federally funded or assisted construction projects; (3) reduce construction costs to the Federal Government and to the tax payers; (4) expand job opportunities, especially for small and disadvantaged businesses; (5) prevent discrimination against Government contractors or their employees based upon labor affiliation or lack

thereof; and (6) prevent the inefficiency that may result from the disruption of a previously established contractual relationship in particular cases; thereby promoting the economical, nondiscriminatory, and efficient administration and completion of Federal and federally funded or assisted construction projects, it is hereby ordered that Executive Order 13202 of February 17, 2001, is amended by adding to section 5 of that order the following new subsection:

[[Page 18718]]

(c)

The head of an executive agency, upon application of an awarding authority, a recipient of grants or financial assistance, a party to a cooperative agreement, or a construction manager acting on behalf of the foregoing, may exempt a particular project from the requirements of any or all of the provisions of sections 1 and 3 of this order, if the agency head finds: (i) that the awarding authority, recipient of grants or financial assistance, party to a cooperative agreement, or construction manager acting on behalf of the foregoing had issued or was a party to, as of the date of this order, bid specifications, project agreements, agreements with one or more labor organizations, or other controlling documents with respect to that particular project, which contained any of the requirements or prohibitions set forth in sections 1(a) or (b) of this order; and (ii) that one or more construction contracts subject to such requirements or prohibitions had been awarded as of the date of this order.

(Presidential Sig.)B

THE WHITE HOUSE,

April 6, 2001.

[FR Doc. 01-9086

Filed 4-10-01; 8:45 am]

Billing code 3195-01-P

FORM RF211 – EQUAL OPPORTUNITY EMPLOYMENT

LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS • OFFICE OF PUBLIC HEALTH

PROSPECTIVE PRIME CONTRACTOR'S (BIDDER'S) STATEMENT ABOUT EQUAL OPPORTUNITY CLAUSE

- () I have participated in previous contract(s) or subcontract(s) subject to the equal opportunity clause under Executive Orders 11246 and 11375 or preceding Executive Orders 10925 and 11114. I have filed all reports due under the requirements contained in 40 CFR, Part C, 8.11.
- () I have not participated in previous contract(s) subject to the equal opportunity clause under Executive Orders 11246 and 11375 or preceding Executive Orders 10925 and 11114.

I will obtain a similar statement from any proposed subcontractor(s), when appropriate.

(PROJECT or WATER SYSTEM NAME)

(Signature and Title of Prospective Prime or Sub Contractor's Representative)

(Printed or typed Name and Title of Prospective Prime or Sub Contractor's Representative)

(Name and address of Prospective Prime or Sub Contractor)

FORM RF212 – NONSEGREGATED FACILITIES

LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS • OFFICE OF PUBLIC HEALTH

PROSPECTIVE PRIME CONTRACTOR'S (BIDDER'S) CERTIFICATION OF NONSEGREGATED FACILITIES

I hereby certify that I do not and will not maintain any facilities provided for my employees in a segregated manner, or permit my employees to perform their services at any locations under my control where segregated facilities are maintained; and that I will obtain a similar certification prior to the award of any federally assisted subcontract exceeding \$10,000 which is not exempt from the equal opportunity clause.

(PROJECT or WATER SYSTEM NAME)

(Signature and Title of Prospective Prime or Sub Contractor's Representative)

(Printed or typed Name and Title of Prospective Prime or Sub Contractor's Representative)

(Name and address of Prospective Prime or Sub Contractor)



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 the 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, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for 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 or cause or default.

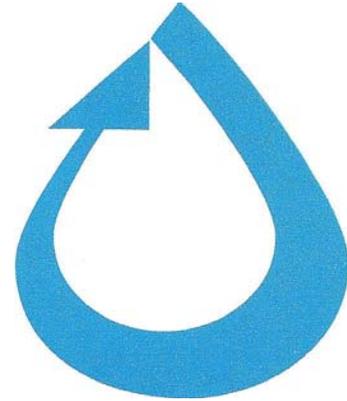
I understand that a false statement on this certification may be ground for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Type d Name & Title of Authorized Representative

Signature of Authorized Representative Date



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



DRINKING WATER

REVOLVING LOAN FUND

A PROGRAM OF THE DEPARTMENT OF HEALTH AND HOSPITALS

DWRLF Project Sign Specifications and Guidance Document

DWRLF PROJECT SIGN SPECIFICATIONS AND GUIDANCE DOCUMENT

The DWRLF Logo is a combined graphic, featuring both a stylized water drop/arrow, and a wordmark. These elements always appear together: the graphic must always appear in conjunction with the wordmark.

COLORS: the full-color DWRLF logo colors are PMS Process Blue and PMS 368M Green for the words “Revolving Loan Fund”. If printing in process color, the Process Blue equivalent should be:

100% Cyan
10% Magenta
0% Yellow
10% Black

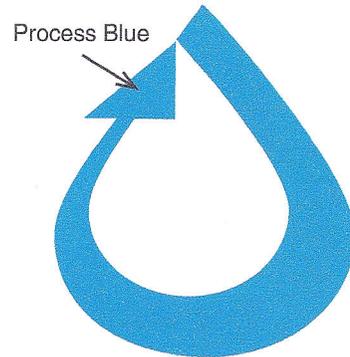
The PMS 368M equivalent is

57% Cyan
0% Magenta
100% Yellow
0% Black

The logo should never be printed in colors other than these, nor should the colors be reversed (No green graphic with blue type, for example). Avoid printing this graphic against any other color or pattern. It should always be printed against a white background only. If it is necessary to print the logo against color, a reversed-out (white only) version has been provided, but this should be used sparingly.

When printing in one color only, an all-blue logo option has been provided. The logo should not be printed in any other color.

When printing in black only, or for other single color applications – fax cover sheets, embroidery, etc. – an all all-black version has also been provided.



DRINKING WATER
REVOLVING LOAN FUND

A PROGRAM OF THE DEPARTMENT OF HEALTH AND HOSPITALS

PMS 368M



DRINKING WATER
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One-color option



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Black option



Reverse option
against black

DWRLF PROJECT SIGN SPECIFICATIONS AND GUIDANCE DOCUMENT

For applications where a horizontal solution is required, a horizontal logo / wordmark combination has been provided.

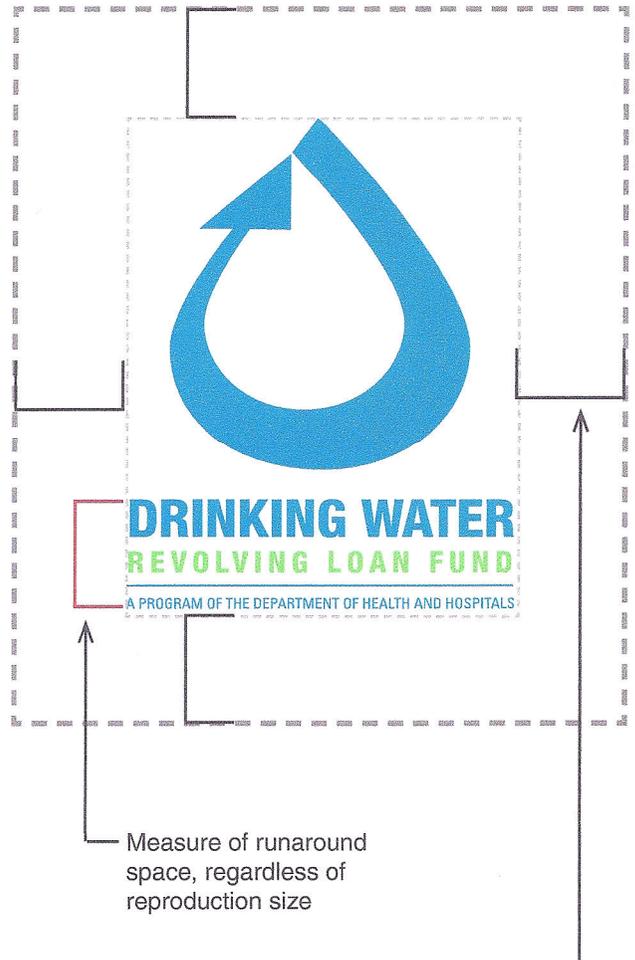


For small scale uses, such as imprinting on pencils, pen or other promotional items, a modified version of the logo has been provided. This small logo should not be used in any other setting and is not preferred.



Spacing:

A border, or runaround, of white space must always surround the logo. The space should be equivalent to the vertical height of the word mark, or the type beneath the graphic element. This measure, regardless of the reproduction size of the logo, must be applied to each side of the logo. No element, whether graphic or typographic, should encroach on this runaround.



Measure of runaround space, regardless of reproduction size

Same measure applied to each side of logo, indicating runaround — no element may come closer to the logo

DWRLF PROJECT SIGN SPECIFICATIONS AND GUIDANCE DOCUMENT

Spacing Exceptions:

When appropriate, the logo may be used as part of a "label", identifying the nature of the product (see example at right). The title should be placed under the wordmark, at a leading consistent with the wordmark leading, and should not extend beyond the width of the logo. If the title is too long to fit within this space at a readable, size, it should be placed elsewhere, determined by design needs and other usage guidelines.



Watermark:

If the logo is used to watermark the pages of a document, the logo should be screened / opacity set at 15%. The size of the watermarked image will vary, depending on the kind of document, but should, in general, be centered on the page and have a height no less than 2/3 of the final printed page size.

DRINKING WATER
REVOLVING LOAN FUND

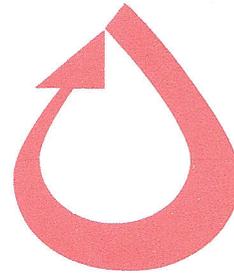
A PROGRAM OF THE DEPARTMENT OF HEALTH AND HOSPITALS

DWRLF PROJECT SIGN SPECIFICATIONS AND GUIDANCE DOCUMENT

Misuse:

Do NOT:

Print the logo in colors other than those specified:



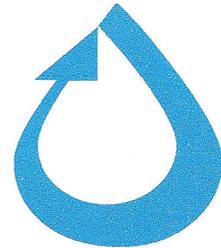
DRINKING WATER
REVOLVING LOAN FUND

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Allow other elements beyond the specified turnaround:

non—sound, smell, taste and so characterized by emptiness and so our nstitutes the basis upon which we

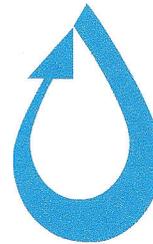
Form is emptiness and emptiness is e nature of form is emptiness and tiness is not the same as form, but e have to take form into consider- : dealing with a form, we cannot a line of a prayer that states, “The is beyond words and expression.” at it is also beyond thought. This n a basis you cannot even concep-



DRINKING WATER
REVOLVING LOAN FUND

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Stretch or otherwise distort the aspect ratio of the logo:



DRINKING WATER
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DRINKING WATER
REVOLVING LOAN FUND

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Rearrange the elements of the logo:

DRINKING WATER
REVOLVING LOAN FUND

A PROGRAM OF THE DEPARTMENT OF HEALTH AND HOSPITALS

DRINKING WATER
REVOLVING LOAN FUND

A PROGRAM OF THE DEPARTMENT OF HEALTH AND HOSPITALS



DWRLF PROJECT SIGN SPECIFICATIONS AND GUIDANCE DOCUMENT

Fonts & Colors:

The typeface used in the wordmark is Helvetica LT Bold condensed. Display type, used in DWRLF printed material, is Seria Sans Bold.

For body copy, plain Helvetica is preferred, but any standard face may be used. Seria Sans should not be used for body copy.

**HELVETICA LT BOLD
CONDENSED**

Seria Sans Bold.

Secondary colors: Recommended for solid color applications (shirts, etc) and for general emphasis in choosing photographs, design palettes, etc.



PMS 655



PMS 357



PMS 655



PMS 357



PMS 146



PMS 103



PMS 656



PMS 421

DWRLF PROJECT SIGN SPECIFICATIONS AND GUIDANCE DOCUMENT

Outdoor Project Sign:

This is a 4' x 8' sign to be produced in outdoor rigid material, which can be plywood, metal, PVC or Coroplast, with a white background.

This sign is designed as a template to be filled out by the owners of individual water projects and displayed at the project site, with fonts common to Windows-based PCs (Arial Narrow Bold), colors and sizes specified in the file for ease of creation.

The sign is can also be re-created with information below: where the DWRLF logo is 18 x 23 inches, the State of Louisiana logo is 9.4 inches and the DHH logo is 7 x 9.6 inches. Please note that the blue used in the border, line and text is the blue in the DWRLF logo.

Fonts: when possible, the specified DWRLF display font, Helvetica LT condensed Bold (or any Helvetica Condensed bold) should be used, with the project name on Pantone Process Blue and all other type in black. Type sizes are specified in the illustration below.

The logos are available in Line Art form, with colors specified in the individual files, or high-resolution equivalents.

Example Project Sign

NOTE: The PROJECT TITLE must be the name of the entire project covering the full loan amount (i.e. "2016 Water System Improvement Project") and not just the individual contract.

The PROJECT COST must be the full loan amount and not the individual contract amount (i.e. "PROJECT COST: \$11,000,000").

Financed by Louisiana Department of Health and Hospitals DRINKING WATER REVOLVING LOAN FUND/EPA		
WATER IMPROVEMENT PROJECT TITLE WATER SYSTEM NAME	DRINKING WATER REVOLVING LOAN FUND <small>A PROGRAM OF THE DEPARTMENT OF HEALTH AND HOSPITALS</small>	
PROJECT COST		
		

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

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

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

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

COLOR AND SPACING

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



PREFERRED USE

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



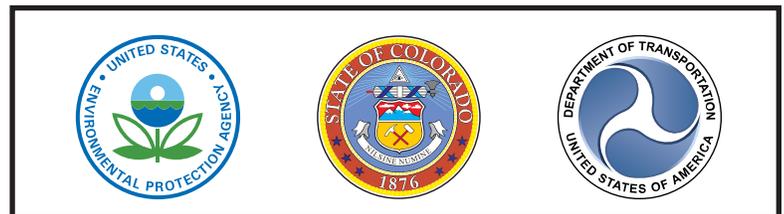
SIZE AND LOGO WITH OTHER LOGOS

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



SIZE AND SEAL WITH OTHER SEALS

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



IMPROPER LOGO USAGE



Louisiana Secretary of State Tom Schedler

STATE FLAG AND SEAL

Official Louisiana state flags are available for purchase from the Capitol Foundation by calling 225.342.0642.

Use the artwork below for all materials that display the state flag and seal. Please read the specifications below before altering the design in any way.



Specifications

The secretary of state is the custodian of the official artwork for the state flag and seal. This artwork, in the form of digital files, is to be used as is, reproduced in the manner specified below. No alteration of the artwork provided by the secretary of state is allowed except as provided below.

State Flag

For reproductive purposes, the following specifications shall be used:

The Louisiana flag contains two elements: a crest centered on a blue field.

The crest consists of a nest bearing three chicks, a mother pelican vulning herself with her head turned to the viewer's right and displaying three drops of blood on her breast. Beneath the nest a white banner bears the state motto "Union Justice Confidence."

The flag contains 12 Pantone colors printed on a white (PMS 000) background. The specified colors, location and use are as follows:

- PMS Cool Gray 8C – Pelican (gray – mother pelican)
- PMS Cool Gray 11C – Banner (gray – shadows)
- PMS 109C – Pelican Plumage (bright yellow – mother pelican’s head)
- PMS 497C – Pelican (dark brown – mother pelican’s bill, wings, bottom and nest)
- PMS 724C – Nest (chocolate brown)
- PMS 721C – Nest (tan)
- PMS 142C – Nest (golden tan)
- PMS 485C – Blood droplets (red – mother pelican)
- PMS 716C – Beak (orange – pelican chicks)
- PMS 145C – Beaks (burnt orange – mother pelican, chicks, mother’s plumage)
- PMS 295C – Background (dark blue)
- PMS Black C – Outlines

The flag shall be 7 units tall by 11 units wide.

The crest is to be treated as a single design element, inclusive of the mother pelican, chicks, nest and banner.

For positioning purposes, the center of crest is the center of the triangle formed by three drops of blood.

The crest is centered both vertically and horizontally on the field. The crest, measured through the center vertically and horizontally, is 5 ¼ units tall (from tip of mother pelican’s head to the bottommost point of banner) by 6 units wide (from tip to tip of banner measured from lowest corner of each tip).

The official specifications do not call for other decorations, such as fringe, border, cords and the like. These are allowed for display purposes so long as they do not encroach on, obscure or alter the total flag image as specified above. (A gold fringe attached to the edges of the flag is acceptable, for example; a fringe, border or other decoration drawn or attached within the field itself or on the crest is not allowed.)

Note on font: The font used for the motto, although always treated as an inseparable element of the crest, is a hand-rendered font for specific use on the flag.

State Seal

The secretary of state shall supply line art for the seal for metal casting embossed seals and seal devices.

The seal consists of a central crest within a circle and an outer circle bearing the state name and ornamentation. Artwork is identical to the flag’s crest but displayed without the banner.

The motto is circumscribed around the crest with: “Union Justice” above the Pelican, the words separated by a single bullet, and “Confidence” below the crest, bracketed by bullets. The font is the same hand-rendered font as on the state flag.

“State of Louisiana” shall appear in the outer circle and uppermost on the seal, circumscribed along the uppermost portion of the outer circle. The font for this shall be AgaramondPro-Bold (OpenType).

The state seal shall be reproduced in full, four-color process printing using files provided by the Louisiana Secretary of State’s Office, or in black and white using only line art supplied by the Louisiana Secretary of State’s Office.

The artwork supplied by the secretary of state is to be used as-is with no alterations except sizing as needed. Louisiana state agencies and departments may, however, adopt the seal as their own by adding the agency or departmental name, using the designated font, circumscribed along the bottom portion of the outer circle; the same circle in which “State of Louisiana” is placed.

SECTION 01010

PROJECT DESCRIPTION AND SCOPE OF WORK

A. GENERAL

St. John the Baptist Parish operates the Lions Water Treatment Plant and associated raw water pumping stations (old and new). Currently during low levels in the Mississippi River, the pumps in the old pump station cannot operate due to the configuration of the raw water intake. This project will install a new 16" high density polyethylene (hdpe) raw water intake pipeline from the old pump station to a point approximately 60 feet horizontally into the river at low water stage (elevation 0.00). The new intake pipeline will be installed at an elevation that will ease the hydraulic restrictions on the pump station. New pumps will be installed in conjunction with the installation of the new raw water intake.

The project will include the installation of a pipe piles at the location of the raw water intake in the river. The intake end of the pipeline will be fitted with a slotted intake manifold to filter debris from the intake water in order to protect the pumps. In addition, compressed air lines will be installed adjacent to the pipe to allow for remote cleaning of the manifold. A separate chemical line will be installed to convey potassium permanganate to the intake manifold.

The project will include the relocation of the electrical service to the pump stations. The existing electrical service is an aerial service supported by poles. The new electrical service will cross the existing levee at grade then connected to the underside of the existing access bridge to the pump stations. This will allow for more reliability in the event of severe weather conditions.

B. PROPOSED ORDER OF WORK

The proposed construction work will be phased to allow the shortest interruption of pumping by the existing Old Pump Station while the improvements are underway. As sequencing of the installation of the new raw water intake line will be required to shorten the time required to tie in the existing pump station. Shut down of the Old Pump Station will be kept to a minimum and coordinated with the plant operators.

The Contractor is also cautioned that because this work is to be performed on the flood side of the Mississippi River levee, all established rules and U.S. Army Corps regulations will be enforced governing the driving of support piles and cofferdam sheet piling. The Contractor shall comply with all requirements of the requirements of the Pontchartrain Levee District letter dated November 10, 2016 that is made a part of this specification section.

Sequence of Operations:

- 1) The Contractor shall verify the location of all existing piping and conduits that will be affected by this project. The Contractor shall locate the existing raw water intake in the river and shall pothole and probe the location of the raw water intake at the Old Pump Station prior to the commencement of any excavation or directional drilling.
- 2) The Contractor shall excavate the proposed tie-in points on each pipe and confirm the piping material, diameter and centerline elevation prior to order any piping, adapters, or completing any cofferdam sheeting. Should any of the conditions vary from those shown on the drawings, the Engineer shall be notified and alternate plans shall be supplied. Since the centerline of the pipe is approximately 20 feet deep, the Contractor will be required to establish the cofferdam for the influent pipe tie-in work to perform all pipe investigations.
- 3) Once all pipe characteristics and locations are identified, the Contractor shall obtain the required pipe adapters needed to connect to the existing piping.
- 4) The installation of the new 16" raw water intake piping will be completed by horizontal directional drilling prior to installation of the cofferdam for the tie-in to the existing pump station intake.
- 5) The piles for support of the new raw water intake will be installed and the ductile iron section of the new raw water piping shall be connected to the HDPE portion and set on the pile supports.
- 6) The new screen for the new raw water intake piping shall then be installed.
- 7) Complete the driving of the cofferdam sheeting as approved by permit through the U.S. Corps of Engineers, Louisiana Department of Transportation and Development and the Pontchartrain Levee District. Preliminary design of the cofferdam as well as excavation plans will be required by the Contractor.
- 8) The cofferdam shall be excavated and all excavated material shall be removed and stored as indicated on the plans. All excavated material shall be used, when suitable, for fill as indicated on the drawings. No material shall be trucked off site unless specifically authorized by the construction permit.
- 9) The Contractor shall arrange with the Owner the first shut down of the Old Pump Station for connection of the new raw water intake piping. Once this connection is made and all valves installed, the excavation shall be backfilled and the cofferdam removed.
- 10) The Contractor shall arrange with the Owner for the second shut down of the Old Pump Station for removal of the existing raw water pumps and installation of the new raw water pumps.

- 11) The Contractor shall install the new electrical feed from the Lions WTP to the New Pump Station. The Contractor shall coordinate with the Owner a third shut down for connection of the new electrical supply to the existing electrical equipment in the New Pump Station.

END OF SECTION

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PROTECTING YOU
AND YOUR FAMILY

The Board of Commissioners
OF THE
Pontchartrain Levee District

2204 ALBERT STREET • P.O. BOX 426 • LUTCHER, LA 70071
TEL: 225-869-9721 FAX: 225-869-9723 LA WATTS: 800-523-3148

STEVEN C. WILSON
PRESIDENT

LEONARD C. IRVIN, SR.
VICE PRESIDENT

COMMISSIONERS
HENRY N. BAPTISTE
RICKY BOSCO
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JERRY SAVOY
ALLEN J. ST. PIERRE, SR.

DWIGHT D. POIRRIER
SPECIAL COUNSEL

MEL D. BUSH
BOARD SECRETARY

MONICA SALINS GORMAN
EXECUTIVE DIRECTOR

Date: November 10, 2016

LONO No.: 161110141

This is to certify that: St. John the Baptist Parish
C/O Burk-Kleinpeter, Inc.
P.O. Box 19087
New Orleans, LA 70179-0087

is granted a Letter of No Objection to replace an existing 16-inch water line and install a new river house Pump station on the batture of the left descending Mississippi River levee, vicinity of second order levee station 4585+00, in St. John the Baptist Parish and is being issued, and subject to compliance with the following terms and conditions:

1. All work is to be performed in accordance with the rules and regulations of the Coastal Protection and Restoration Authority (CPRA) and the U.S. Army Corps of Engineers (USACE). In addition, terms and conditions stated within the Letters of No Objection from both CPRA dated November 3, 2016 (15577) and USACE dated September 27, 2016 (16-372) are attached hereto and made a part hereof in their entirety.
2. The work is accomplished in accordance with applicant's letter dated October 13, 2016 and accompanying drawings. **The Pontchartrain Levee District must be contacted prior to commencement AND at the end of all activities by contacting 1-800-523-3148.**
3. Applicant and his surety assume all cost of proper maintenance and upkeep relative to the facility herein authorized.
4. The proposed work must not restrict the Pontchartrain Levee District's maintenance operations, or any potential flood fight activities at the levee, nor shall it obstruct or impede drainage, or create areas of standing water on the levee batture.
5. All pile driving work from the barge is performed and completed while the stage of the Mississippi River is below elevation +15.0 feet on the Carrollton gage, at New Orleans, Louisiana. The applicant is advised to monitor the river stages as reported by the local media or calling the U.S. Army Corps of Engineers at (504) 862-2461 for a recorded message of the daily river stage or verify same at www.rivergages.com.

THE BOARD OF COMMISSIONERS
OF THE
PONTCHARTRAIN LEVEE DISTRICT

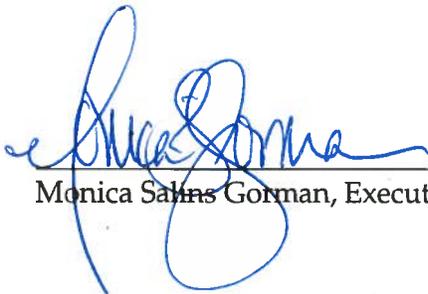
6. All excavation and directional drill work is performed and completed while the stage of the Mississippi River is below elevation +11.0 feet on the Carrollton gage, at New Orleans, Louisiana.
7. Riprap is placed around all piles that penetrate through the revetment in accordance with the Corps of Engineers standard drawing, "Repair Procedures Required When Penetrating Revetments With Piles, Caissons and/or Pile Clusters", file No. H-18-45204.
8. That no equipment, vehicles, or materials of any kind are parked or stored on the levee or on its slopes without prior approval from the Pontchartrain Levee District.
9. That the directional drill entry, exit or installations will be no closer than 40-feet from the flood side levee toe, and 100-feet from the protected side levee toe.
10. That if an existing pipeline is being replaced, and will not serve any future use, it must be immediately removed or properly abandoned. Any voids resulting from abandonment of the pipeline section in the area located within 40 feet of the flood side levee toe and 15 feet of the protected side levee toe, must be completed sealed with cement-bentonite slurry in accordance with the slurry description specified in the State of Louisiana's "Water Well Rules, Regulations and Standards" (November 1985) in Chapter 2, Section 2.6.1.0, Item A.
11. That excavated areas be backfilled as expeditiously as possible using clay material whose composition and density equals or exceeds that of areas adjacent to, and along the perimeter of the excavation boundary, or with native material.
12. That the metal structure has a minimum of the equivalent of two (2) coats of 8-mils coal tar epoxy with a cathodic protection system that conforms with current industry (e.g. NACE) standards. Operation and maintenance of the system shall be the responsibility of the system owner.
13. The barges maintain a minimum of three (3) feet of clearance over the underwater revetment during any river stage.
14. The barges are moored in such a manner as not to damage the existing batture, revetment, or encroach within 100 feet of the riverside levee toe, under any river conditions.
15. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein. The permittee will, at his or her expense, install and maintain any safety light, signals, and signs prescribed by the United States Coast Guard, through regulations or otherwise, on authorized facilities or no equipment used in performing work under the authorization.

**THE BOARD OF COMMISSIONERS
OF THE
PONTCHARTRAIN LEVEE DISTRICT**

16. If the proposed project, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the Eight Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of your letter of no objection approval and drawings should be mailed to the Commander, Eight Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana, 70130, (504) 671-2107, about one (1) month before your plan to start work.
17. The permittee understand and agrees that, in future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required upon due notice from the Corps of Engineers, to remove, relocate or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
18. Any damage to the levee, revetment, and/or batture resulting from the applicant's activities is repaired at the applicant's expense.
19. That the applicant is responsible for maintaining the existing level of flood protection at all times to the satisfaction of the Pontchartrain Levee District.
20. **You are advised that you must obtain a Department of the Army (DA) prior to the commencement of any work at the site. The U.S. Army Corps of Engineers point of contact in the Regulatory Branch for the DA permit (MVN-2012-2001-EII, PGPI) is Mr. Ed Wrubluski at 504-862-2822, or by email at Edward.F.Wrubluski@usace.army.mil.**
21. All materials associated with the proposed work must be removed from the area upon completion of the project and the area must be returned to its original state of existence or better.
22. That should changes in the location or section of the existing levee and/or river, or in the generally prevailing conditions in the vicinity, be required in the future in the public interest, the applicant shall make such changes in the project concerned, or in the arrangements thereof, as may be necessary to satisfactorily meet the situation and shall bear the cost thereof.
23. That any and all new, proposed, modified or existing work to pipeline(s) levee crossings are constructed and maintained in accordance with the "Typical Pipeline Levee Crossings, File M-2159-1" as prepared by the Department of Transportation and Development Division of Flood Control and Water Management.

THE BOARD OF COMMISSIONERS
OF THE
PONTCHARTRAIN LEVEE DISTRICT

24. The applicant agrees to indemnify and save grantor harmless from any and all liability, including liability of grantor to applicant, its heirs, successors, and/or assigns, arising out of and/or incident to the rights herein granted. Applicant further agrees to appear and defend any and all suits instituted against this Board arising out of and/or incident to this letter of no objection, and to pay in full any judgment rendered against this Board arising out of and/or incident to the granting of the letter of no objection.
25. That there is no penetration, excavation, disturbance or placement of structures within the theoretical levee design section.
26. Further, this letter of no objection does not purport to authorize applicant's entry upon any land, public or private, including lands owned by this Board, without first securing from the owner's permission to conduct such operations. This letter of no objection does not purport to waive the requirements of other governmental or sub governmental bodies, and no work should commence until all necessary permits are required.
27. This letter of no objection is valid for a period of one year. A request for renewal should be submitted to this office prior to **November 10, 2017**.
28. In addition, it is required that a copy of the letter of no objection is to be maintained on site, at all times.



Monica Salms Gorman, Executive Director

cc: U.S. Army Corps of Engineers
Coastal Protection and Restoration Authority



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
P. O. BOX 60267
NEW ORLEANS, LA 70160-0267

September 27, 2016

REPLY TO
ATTENTION OF

Operations Division
Operations Manager,
Completed Works

Mr. Steven C. Wilson - President
Board of Commissioners
Pontchartrain Levee District
Post Office Box 426
Lutcher, Louisiana 70071

Dear Mr. Wilson:

We have received an application for a Department of the Army permit, dated November 4, 2015, from Burk-Kleinpeter, Inc., on behalf of St. John the Baptist Parish, concerning permission to replace an existing 16-inch water line and install a new river house Pump station on the batture of the left descending Mississippi River levee, vicinity of second order levee station 4585+00, in St. John the Baptist, Louisiana.

We have no objection to your Board's issuance of a permit for the proposed work provided:

a. The work is accomplished in accordance with the above referenced application, vicinity map and accompanying drawings.

b. All pile driving work from the barge is performed and completed while the stage of the Mississippi River is below elevation +15.0 feet on the Carrollton gage, at New Orleans, Louisiana. Information concerning current river stages may be obtained on our website at www.mvn.usace.army.mil.

c. All excavation and directional drill work is performed and completed while the stage of the Mississippi River is below elevation +11.0 feet on the Carrollton gage, at New Orleans, Louisiana.

d. Riprap is placed around all piles that penetrate through the revetment in accordance with the Corps of Engineers standard drawing, "Repair Procedures Required When Penetrating Revetments With Piles, Caissons and/or Pile Clusters," file No. H 18 45204, copy enclosed.

e. The barges maintain a minimum of three feet of clearance over the underwater revetment during any river stage.

f. The barges are moored in such a manner as not to damage the existing batture, revetment, or encroach within 100 feet of the riverside levee toe, under any river conditions.

g. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein. The permittee will, at his or her expense, install and maintain any safety light, signals, and signs prescribed by the United States Coast Guard, through regulations or otherwise, on authorized facilities or on equipment used in performing work under the authorization.

h. If the proposed project, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the Eighth Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of your permit approval and drawings should be mailed to the Commander, Eight Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, (504) 671-2107, about one month before you plan to start work.

i. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required upon due notice from the Corps of Engineers, to remove, relocate or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

j. Any damage to the levee, revetment and/or batture resulting from the applicant's activities is repaired at the applicant's expense.

k. That should changes in the location or section of the existing levee and/or river, or in the generally prevailing conditions in the vicinity, be required in the future in the public interest, the applicant shall make changes in the project concerned, or in the arrangement thereof, as may be necessary to satisfactorily meet the situation and shall bear the cost thereof.

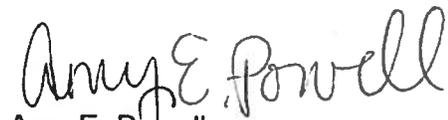
This letter of no objection is based upon engineering criteria, and no interpretation or comments regarding local laws, zoning, or ordinances concerning property rights, etc., have been made. Additionally, this letter of no objection does not obviate the applicant's requirement to obtain federal, state, or local permits required by law.

You are advised that you must obtain a Department of the Army (DA) permit prior to the commencement of any work at the site. The U.S. Army Corps of Engineers point of contact in our Regulatory Branch for the DA permit (MVN-2012-2001-EII, PGPI), is Mr. Ed Wrubluski at 504-862-2822, or by email at Edward.F.Wrubluski@usace.army.mil.

If you have any questions, please contact me or Sarah Stone of my office at 504-862-2241 or 504-862-1715, respectively. Additionally, future correspondence concerning this project should reference our Letter of No Objection number 16-372. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

Please furnish this office a copy of your permit if the applicant's proposal is approved by your Board.

Sincerely,



Amy E. Powell
Operations Manager, Completed Works

cc:

CPRA
Burk-Kleinpeter, Inc.
Attn: Robert Bredberg



Coastal Protection and Restoration Authority of Louisiana

State of Louisiana

November 3, 2016

John Bel Edwards
GOVERNOR

Pontchartrain Levee District
P. O. Box 426
Lutcher, LA 70071
Attention: Ms. Jerri Henderson

PERMIT REQUEST FORM OF NO OBJECTION

This Letter of No Objection is not a regulatory permit and does not authorize the implementation of any project without documented approval from all appropriate regulatory authorities.

Permit Applicant: St. John The Baptist Parish

Date of Request 10-13-2016

Agent: Burk Kleinpeter Inc.

Applicant's Request: Approval to replace and lower the existing raw water intake pipe to the Lions Water Plant Pump House as well as to replace existing raw water pumps within the facility. An existing 1-inch diameter chemical line and 2-inch diameter air line will be pulled concurrently with a portion of the existing 16-inch diameter HDPE. A 16-inch diameter HPDE, 1-inch diameter chemical line, and a 2-inch diameter air line will then be installed adjacent to the location of the existing line, all via directional drill being approximately 300-feet in length. The directional drilling will be directed from floodside to the river, no boring assist pit required, with pipe then being pulled from a barge back landward. This work will also require the driving of eight, 30-foot long, untreated piles within the bank of the Mississippi River to affix the intake structure. The only excavation required will be 10'L x 10'W x 20'D, sheet pile and whaler shored w/dewatering, to connect pipelines. The existing pipeline to be abandoned and filled with cement/bentonite mixture. The closest work location will be 340-feet from the centerline of the levee.

10/21/2016 received via email
Job No. 14.006

Project Location: All work to occur on the floodside/batture of the left descending Mississippi River Levee, vicinity of second order levee station 4585+00, Reserve, St. John the Baptist Parish, Louisiana.

project coordinates:..... 30° 03' 17.060" , -90° 34' 49.130"

The above referenced request has been examined by Coastal Protection and Restoration Authority, and no objection is proffered for this request, provided:

1. This Letter of No Objection is only for stated work within or in the vicinity of the Levee District right-of-way, and must be accomplished in accordance with the details set forth in the applicant's request and the conditions contained herein. Any changes to the limits or scope of the proposed work must be submitted for additional review. The Levee District must be contacted in writing prior to commencement and at the end of activities. The applicant is responsible for obtaining and providing copies of any permits or lease agreements necessary from the U.S. Army Corps of Engineers, the U.S. Coast Guard, the Louisiana State Land Office, the Louisiana Department of Transportation and Development, the Louisiana Department of Natural Resources - Office of Coastal Management, the Louisiana Department of Wildlife and Fisheries, the Parish Government and/or any other applicable agencies, as well as documented approval from the area landowner(s) prior to the initiation of the work. The applicant is responsible for adhering to the provisions of any existing permits. The proposed work must not restrict the Levee District's maintenance operations, or any potential flood fight activities at the levee, nor shall it obstruct or impede drainage, or create areas of standing water on the levee batture. The applicant must employ and maintain suitable erosion protection measures at

the project site to the satisfaction of the Levee District. The applicant or owner must immediately notify the Levee District of any seepage or sand boils that occur during high water conditions. All materials associated with the proposed work must be removed from the area upon completion of the project and the area must be returned to its original state of existence or better. Any damage done to the levee, floodwall or other flood control structure, revetment, or surrounding project area, resulting from the proposed work must be repaired or replaced by the applicant. Should any change in the location of the existing levee, river, floodwall, drainage canal, waterway, or generally prevailing conditions in the vicinity, or should any changes in the area be required in the future, in the public interest, the applicant shall make such changes in the project as necessary. Any required changes or repairs shall be at the applicant expense. This letter of no objection is offered with no opinion or approval of the design or engineering feasibility of the work.

Failure to abide by the conditions and requirements set forth in this Letter of No Objection may constitute non-compliance with the State of Louisiana comprehensive master coastal protection plan and may subject the levee district and/or the applicant/agent to any and all procedures and actions by CPRA or the CPRA Board pursuant to La. R.S. 49:214.5.2(A)(6) and as may be necessary to ensure compliance with such comprehensive master coastal protection plan.

2. That the proposed activities occur and are completed prior to or after high water stages or hurricane conditions such that no operations are conducted at saturated levee systems. Authorization for work periods will be determined at the discretion of the Levee District.
3. That all subsurface work is performed and backfilled prior to the Mississippi River attaining or exceeding + 11.0 feet NGVD, on the Carrollton Gage at New Orleans, unless the applicant receives documented approval to the contrary from the U.S. Army Corps of Engineers-New Orleans District.
4. That no equipment, vehicles, or materials of any kind are parked or stored on the levee or on its slopes without prior approval from the levee district.
5. That the directional drilling entry, exit, or installations will be no closer than 40-feet from the floodside levee toe, and 100-feet from the protected side levee toe.
6. That if an existing pipeline is being replaced, and will not serve any future use, it must be immediately removed or properly abandoned. Any voids resulting from abandonment of the pipeline section in the area located within 40 feet of the floodside levee toe, and 15 feet of the protected side levee toe, must be completely sealed with cement-bentonite slurry in accordance with the slurry description specified in the State of Louisiana's "Water Well Rules, Regulations and Standards" (November 1985) in Chapter 2, Section 2.6.1.0, Item A.
7. That the work is to be completed according to the recommendations provided in the geotechnical report prepared by Eustis Engineering on 15 July 2015. If any change is made to these assumptions, it is the responsibility of the applicant to submit this information to CPRA for further review.
8. That excavated areas be backfilled as expeditiously as possible using clay material whose composition and density equals or exceeds that of areas adjacent to, and along the perimeter of the excavation boundary, or with native material.
9. That the metal structure has a minimum of the equivalent of two coats of 8-mils coal tar epoxy with a cathodic protection system that conforms with current industry (e.g. NACE) standards. Operation and maintenance of the system shall be the responsibility of the system owner.

2016-11-03

Page 3

10. That the work and/or installation pose no hazard to area navigation.
11. That the applicant install and maintain any hazard markers and/or navigation aids that may be required by the U.S. Department of Homeland Security, United States Coast Guard.
12. That the applicant is responsible for maintaining the existing level of flood protection at all times to the satisfaction of the Levee District.

Yours very truly,



for Ignacio Harrouch, Operations Division Chief
Coastal Protection and Restoration Authority of Louisiana

15577/bw/rd/tj

cc:

U.S. Army Corps Of Engineers-Levees
Office Of Coastal Management
U.S. Coast Guard
Mr. Billy Wall

SECTION 01015

MISCELLANEOUS REQUIREMENTS

1.0 GENERAL

1.01 DIVISIONS AND SECTIONS

- A. Separation of these specifications into Divisions and Sections is done for convenience only and is not intended to establish responsibilities of work, nor shall it operate to make the Owner's Representative arbiter to establish limits to the Contracts between Contractor and Subcontractors.
- B. Bidding and Contract Requirements
 - 1. The Contractor, by execution of the subject documents agrees to comply with all applicable contract conditions.

1.02 NOT IN CONTRACT

- A. Items indicated on drawings as "NIC", or noted "Not in Contract", are shown for convenience only and are not a part of this Contract.

1.03 ACCEPTANCE

- A. Signing of the Contract will be deemed evidence that site and documents have been examined and that the Contractor is familiar with conditions under which the work will be done.
- B. The Contractor shall verify measurements at site and accept responsibility for accuracy of same. The beginning of work indicates acceptance of conditions under which the work will be done.
- C. Extra payments will not be authorized for work that could have been determined by a careful examination of site conditions and coordination with the Contract Documents.

1.04 FACILITATING OVERHEAD AND UNDERGROUND UTILITIES

- A. The Contractor shall examine the site in detail in conformance with other requirements of these specifications. All overhead utilities are not shown on the drawings but are to be noted by the Contractor prior to submission of a bid. Contractor accepts responsibility for execution of the contract duties by submission of his bid.

- B. The responsibility of the Contractor includes facilitating overhead lines throughout the completion of the project and assuming all costs for coordinating, de-energizing, re-energizing, temporarily relocating, permanently relocating, or using special construction methods to complete the work as indicated.
- C. The Contractor shall also examine the site for all sign post indicating underground pipelines. Throughout the construction area are located high pressure gas pipe lines, hydrogen pipe lines, petroleum piping as well as other raw water, water, sludge and chemical pipelines. Contractor accepts responsibility for execution of the contract duties by submission of his bid.

1.05 INTERFERENCES

- A. Drawings are generally diagrammatic. Contractor shall organize or coordinate his work with that of the different trades so that interferences of different equipment, piping, etc., shall be avoided and each piece of equipment, piping, etc., installed to function properly.
- B. In the case where interferences develop, the Engineer is to be consulted to determine which equipment, piping, etc., is to be relocated regardless of which item was first installed.

1.06 PERMITS

- A. Before commencing any work on the jobsite, the Contractor shall obtain a general building permit, Department of the Army permit and all permits, licenses and inspections required for all various trades.
- B. The Contractor shall adhere to all the requirements of the U.S. Army Corps of Engineers, and St. Charles Parish concerning the construction activities located within 1500 feet of the Mississippi River levee and within wet land areas.
 - 1. Contractor shall not initiate any excavation until a formal permit has been provided through the local levee district.

1.07 NOTICE TO PROCEED

- A. After notification from the Owner that the Contractor has signed the construction contract and submitted all necessary bonds, etc., the Owner's Representative shall send the Contractor a written "Notice to Proceed". The "Notice to Proceed" shall include the following information:

1. Number of calendar days in the construction contract.
2. Date of the beginning and end of the contract time.
3. Liquidated damages.

1.08 JOBSITE MAINTENANCE

- A. Keep areas within and about working and storing spaces free from trash, debris, garbage, etc.
- B. Throughout the construction period, dirt and dust accumulated in the working, storing and access roadway areas shall be kept to a minimum.

1.09 PERSONNEL AND EQUIPMENT

- A. Maintain a construction force at site, including competent, qualified superintendent, mechanics, craftsmen and laborers, sufficient to expedite work to completion on date indicated in Contract Documents.
- B. Maintain construction equipment at site, in good condition, sufficient for efficient execution of work.
- C. A responsible member of Contractor's organization shall be kept on site while work is in progress as herein specified. All communications given to the Superintendent, or his assistant in his absence, shall be as binding as if given to the Contractor.

1.10 LOCATION

- A. Datum shall be assumed as shown on the Contract Documents. Use bench marks as listed in the survey in the Contract Documents.
- B. The Contractor shall lay out all piping and appurtenances and other related work from the Contract Documents, and he shall furnish and put in all stakes and batter boards as may be deemed necessary. Contractor shall be solely responsible for all grades, lines and levels.

1.11 OBSTRUCTION TO CONSTRUCTION

- A. The Contractor shall anticipate and remove all subsurface as well as above surface obstructions to construction of his work, unless information on subsurface obstructions is not available.
- B. General Contractor shall not commence work in areas where existing underground utilities interfere with new construction, until the locations and extent of all existing underground utilities are established and removed, rerouted or abandoned.
 - 1. Contractor shall notify the utility companies and/or the Using Agency to remove, re-route or abandon lines which are in or near the line of excavation.
 - 2. Contractor shall notify the Respective Owner well in advance of any work in order to coordinate "tie-ins" and disruption of any services.

1.12 DEMANDS AND CAUSES OF ACTION

- A. Contractor shall defend, indemnify, and hold harmless Owner and Engineer and their agents, employees, related and companion corporations (collectively referred to as Owner and Engineer) from and against any and all claims, demands, and personal injury, wrongful death, or property damage, in any way arising out of or resulting from, directly or indirectly, the work performed by or any of his subcontractors, suppliers or agents including all damages, losses, expenses, attorney fees and costs.

1.13 EXISTING UNDERGROUND UTILITIES

- A. The Contractor shall verify the location of all existing off site underground utilities which he is to relocate or to which he is to connect his work.
- B. Protection of Existing Underground Utilities
 - 1. The contractor is responsible for thorough protection of existing underground utilities within the limits of work. Where known utilities are to be encountered, only hand digging shall be allowed. Any damage must be immediately repaired to restore service to the Owner including work at night and weekends.

1.14 WATCHMAN

- A. Services of a watchman are not required, but the Contractor shall be fully responsible for and shall provide reasonable protection to prevent damage to all the work and all materials and equipment to be incorporated therein.

1.15 SUPERINTENDENCE

- A. The Contractor shall employ a competent Superintendent and necessary assistants who shall be in attendance at the project site during the progress of the Work. The Owner's Representative shall be advised of the Superintendent to be employed and he shall not be changed, except with the consent of the Engineer, unless Superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ. The Superintendent shall represent the Contractor and all communications given to the Superintendent shall be as binding as if given to the Contractor. Important communications will be confirmed in writing. Other communications will be so confirmed on written request in each case.

1.16 SERVICE CHARGES

- A. Include all service charges that may be applicable for execution and completion of the Work.
- B. Temporary service charges shall be determined by Contractor's arrangements with respective Utility Companies.

1.17 SALVAGE AND DISPOSITION OF MATERIAL AND EQUIPMENT

- A. The Owner shall have priority for the selection of salvaged equipment and materials. Any equipment and materials selected to remain the property of the Owner shall be removed and delivered to a location as designated by the Owner. Material not retained by the Owner shall become the property of the Contractor and shall be removed from the site by him.

1.18 DEFINITIONS

- A. Owners
 - 1. The Owner of the subject project is the St. John the Baptist Parish Government.

1.19 RESIDENT PROJECT REPRESENTATIVE

- A. The Engineer may furnish a Resident Project Representative and assistants to aid Engineer in carrying out his responsibilities at the site. The duties, responsibilities, and limitations of authority of the Resident Project Representative are set forth in these documents.

1.20 OVERTIME WORK

- A. No work shall be done between 6:00 P.M. and 7:00 A.M. nor on Sundays or legal holidays without permission of Owner. However, emergency work may be done without prior permission.
- B. The Contractor shall establish a normal work schedule which does not exceed 40 hours per week. Whenever Contractor's work requires scheduled overtime, Contractor shall reimburse Owner for extra costs incurred at a rate of \$100.00 per hour for providing Resident Project Representative and overtime shall be scheduled only after Contractor obtains written permission from Owner. A Change Order shall be prepared to cover Owner's reimbursable costs.

1.21 CHANGE ORDER PROCEDURES

- A. Without invalidating the Contract, the Owner may make reasonable changes by altering, adding to, or deducting from the Work, the Contract Price being adjusted accordingly. No claim for extra work or materials shall be allowed and no alteration of or deduction from the work shall be made, unless same is ordered in writing by the Owner.
- B. Where changes ordered by the Owner involve a monetary consideration, the Contract shall be adjusted by negotiation with the terms of said negotiation being expressed in a supplemental agreement or Change Order signed by the Owner, the Contractor and the Engineers.
- C. If the Owner and the Contractor are unable to reach an agreement as to the monetary consideration of a Contract addition, the Engineers acting as the Owner's representative may order the Contractor to do such work on a force account or time and materials basis.
- D. The Contractor shall furnish labor, equipment and materials necessary to complete the work in a satisfactory manner and within a reasonable period of time.

2.0 PRODUCTS
NOT USED

3.0

EXECUTION
NOT USED

END OF SECTION

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SECTION 01025

MEASUREMENT AND PAYMENT

1.0 GENERAL

1.01 SUMMARY

- A. The project shall be constructed complete as shown and indicated on the Contract Drawings and as described in the Contract Specifications.
- B. Payment shall be made for all work to be performed under the Contract, including supplying all materials, labor, services, etc. for a complete project including a new 16" raw water intake and associated appurtenance, two new raw water pumps with associated valves and piping, new compressed air and chemical piping, and modifications to the existing electrical supply to the pump stations. All work shown on the Plan Sheets and required under the Specifications shall be included in the aggregate of bid Items submitted in the Proposal. Payment for each item shall include, but not be limited to, the materials and labor required to provide and construct the item as described below. Payment will cover all ancillary equipment, materials, labor, etc., whether mentioned or not, that is required to provide the construction item or system complete.

1.02 PAYMENT ITEMS

A. Mobilization

1. Measurement of "Mobilization" will be based on the cost involved in bringing equipment and material to the site and any other extraneous costs related to project startup.
2. Payment will be made as a lump sum with the stipulation that the total payment be made in three equal payments for each of the three months within the project period immediately after issuance of the notice to proceed. The Payment for this item will not exceed five percent (5%) of the total sum of all other payment item unit price extensions from the bid form when added together as a total amount.
3. The payment item for "Mobilization" is Reference Number 001.

B. Sheet Piling

1. Measurement for "Sheet Piling" will be based on a square foot basis for all material and work required to install the sheeting, wales and braces as

required to make a complete system and to remove same. Work will include all labor and equipment necessary to install and remove the sheet piling.

2. Payment of the Square Foot Price bid for Clearing and Grubbing will be full compensation for all labor, materials and equipment required to complete all work as required by the Contract Documents.
3. The payment item for the "Sheet Piling" is Reference Number 002.

C. Excavation

1. Measurement of payment for "Excavation" will be on a cubic yard basis for all material and work required to excavate the areas shown on the drawing for placement and connection of all underground materials. This item shall include all work removal, stockpiling and transport from the site to a place of disposal.
2. Payment of the cubic yard bid price for "Excavation" will be full compensation and inclusive for all labor, materials, and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for the "Excavation" is Reference Number 003.

D. Directionally Drill and Install 16" HDPE (DIPS) DR 11 Piping

1. Measurement of payment for "Directionally Drill and Install 16" HDPE (DIPS) DR 11 Piping" will be on a linear foot basis for all material and work required to install this type of pipe as shown on the drawings. This item shall include all work including all joining, layout, fusing and placement into the borehole to make the pipe into a uniform continuous piece for installation. The cost for directionally drilling the borehole for this piping is included in the cost of this item. Work will include all equipment and personnel required to install the 16" HDPE piping including all barges, divers and other ancillary equipment, materials and personnel to complete the work.
2. Payment of the linear foot bid price for the "16" HDPE SDR 11 Pipe" will be full compensation and inclusive for all labor, materials, and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for the "16" HDPE SDR 11 Pipe" is Reference

Number 004.

E. 16" Ductile Iron Pipe with Restrained Mechanical Joints

1. Measurement of payment for "16" Ductile Iron Pipe with Restrained Mechanical Joints" will be on a linear foot basis for all materials and work required to install this type of piping at the locations and within the limits as shown on the drawings. Pipe joints will be restrained using the method listed in the drawings.
2. Payment of the linear foot bid price for the "16" Special Class 56 Ductile Iron Pipe with Restrained Mechanical Joints" will be full compensation and inclusive for all labor, materials, restraining glands and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for the "16" Special Class 56 Ductile Iron Pipe with Restrained Mechanical Joints" is Reference Number 005.

F. Ductile Iron Pipe Fittings

1. Measurement of payment for the "Ductile Iron Pipe Fittings" will be on a lump sum basis for all fittings required for the project.
2. Payment of the lump sum bid price for the "Ductile Iron Pipe Fittings" will be full compensation for all labor, materials, and equipment required to install all fittings for this project as indicated on the drawings.
3. The payment item for the "Ductile Iron Pipe Fittings" is Reference Number 006.

G. Installation of Intake Manifold

1. Measurement of payment for "Installation of Intake Manifold" will be on a lump sum basis for all materials and work required to provide and install the new intake manifold to the new 16" raw water intake. Work will include all equipment and personnel required to install the intake manifold including all barges, divers and other ancillary equipment, materials and personnel to complete the work.
2. Payment of the lump sum bid price for the "Installation of Intake Manifold" will be full compensation and inclusive for all labor, materials, and equipment required to complete the work as described above and as indicated on the drawings.

3. Payment for “Installation of Intake Manifold” is Reference Number 007.

H. Timber Support Piling

1. Measurement of payment for the “Timber Support Piling” shall be on a vertical linear foot basis for the installation of the timber pilings as shown on the drawings including all cross bracing and hardware required. Work will include all equipment and personnel required to install the 16” HDPE piping including all pile drivers, barges, divers and other ancillary equipment, materials and personnel to complete the work.
2. Payment of the lump sum bid price for the “Timber Support Piling” will be full compensation and inclusive for all labor, materials, equipment and appurtenances required to complete the work as described above and indicated on the drawings.
3. The payment item for the “Timber Support Piling” is Reference Number 008.

I. Mechanical Demolition

1. Measurement of payment for “Mechanical Demolition” will be on a lump sum basis for all materials and work required to remove the existing pumps, piping and valves from the interior of the pump station in preparation for installation of new materials.
2. Payment of the lump sum bid price for the “Mechanical Demolition” will be full compensation and inclusive for all labor, materials, and equipment required to complete the work as described above and as indicated on the drawings
3. Payment for “Mechanical Demolition” is Reference Number 009.

J. Pressure Wash Interior Pump Station and Coat Existing Structural Steel

1. Measurement of payment for “Pressure Wash Interior Pump Station and Coat Existing Structural Steel” will be on a lump sum basis for all materials and work required to clean the interior of the existing pump station and prepare the steel components for coating with rust inhibitor and epoxy.
2. Payment of the lump sum bid price for the “Pressure Wash Interior Pump Station and Coat Existing Structural Steel will be full compensation and inclusive for all labor, materials, and equipment required to complete the work as described above and as indicated on the drawings

3. Payment for “Pressure Wash Interior Pump Station and Coat Existing Structural Steel.” is Reference Number 010.

K. Provide and Install New Dry-Pit Submersible Pumps

1. Measurement for “Provide and Install New Dry-Pit Submersible Pumps” will be made per each for all materials and work required to install two new dry-pit submersible pumps at the locations as shown on the drawings. Work will include leveling of pump and grouting of base, connection to new suction and discharge piping and connection to existing electrical supply.
2. Payment of the bid price for each “Provide and Install New Dry-Pit Submersible Pumps” will be full compensation and inclusive of all labor, materials and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for “Provide and Install New Dry-Pit Submersible Pumps” is Reference Number 011.

L. New Suction and Discharge Piping

1. Measurement for “New Suction and Discharge Piping” will be made per lump sum for all materials and work required to install all pipe, and fittings within the limits of the existing pump station to connect the new pumps to the system.
2. Payment of the bid price for each “New Suction and Discharge Piping” will be full compensation and inclusive of all labor, materials and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for “New Suction and Discharge Piping” is Reference Number 012.

M. Provide and Install 16” Gate Valve with Valve Box and Slab

1. Measurement for “Provide and Install 16” Gate Valve with Valve Box and Slab” will be made per each for all materials and work required to install one (1) 16” gate valve, valve box, and concrete pad at the locations as shown on the drawings.
2. Payment of the bid price for each “Provide and Install 16” Gate Valve with Valve Box and Slab” will be full compensation and inclusive of all

labor, materials and equipment required to complete the work as described above and as indicated on the drawings.

3. The payment item for “Provide and Install 16” Gate Valve with Valve Box and Slab” is Reference Number 013.

N. Provide and Install 10” Gate Valve on Interior of Pump Station

1. Measurement for “Provide and Install 10” Gate Valve on Interior of Pump Station” will be made per each to install one (1) 10” gate valve at the locations as shown on the drawings.
2. Payment of the bid price for each “Provide and Install 10” Gate Valve on Interior of Pump Station” will be full compensation and inclusive of all labor, materials and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for “Provide and Install 10” Gate Valve on Interior of Pump Station” is Reference Number 014.

O. Provide and Install 8” Swing Check Valve on Interior of Pump Station

1. Measurement for “Provide and Install 8” Swing Check Valve on Interior of Pump Station” will be made per each to install one (1) 8” swing check valve at the locations as shown on the drawings.
2. Payment of the bid price for each “Provide and Install 8” Swing Check Valve on Interior of Pump Station” will be full compensation and inclusive of all labor, materials and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for “Provide and Install 8” Swing Check Valve on Interior of Pump Station” is Reference Number 015.

P. Provide and Install 8” Knife Gate Valve on Interior of Pump Station

1. Measurement for “Provide and Install 8” Knife Gate Valve on Interior of Pump Station” will be made per each to install one (1) 8” knife gate valve at the locations as shown on the drawings.
2. Payment of the bid price for each “Provide and Install 8” knife Gate Valve on Interior of Pump Station” will be full compensation and inclusive of all labor, materials and equipment required to complete the work as described above and as indicated on the drawings.

3. The payment item for “Provide and Install 8” Knife Gate Valve on Interior of Pump Station” is Reference Number 016.

Q. Provide and Install 10” Gate Valve with Valve Box and Slab

1. Measurement for “Provide and Install 10” Gate Valve with Valve Box and Slab” will be made per each for all materials and work required to install one (1) 10” gate valve, valve box, and concrete pad at the locations as shown on the drawings.
2. Payment of the bid price for each “Provide and Install 10” Gate Valve with Valve Box and Slab” will be full compensation and inclusive of all labor, materials and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for “Provide and Install 10” Gate Valve with Valve Box and Slab” is Reference Number 017.

R. Provide and Install Schd. 40, 316 Stainless Steel Air Piping

1. Measurement of payment for “Provide and Install Schd. 40, 316 Stainless Steel Air Piping” will be on a lump sum basis for all materials and work required to install 1” air piping with connections to the intake manifold and the at the 16” raw water intake on the exterior of the pump station with a final termination at the walkway railing next to the existing pump station including all necessary valves and connections as shown on the drawings.
2. Payment of the liner foot bid price for the “Provide and Install Schd. 40, 316 Stainless Steel Air Piping” will be full compensation and inclusive for all labor, materials, restraining glands and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for the “Provide and Install Schd. 40, 316 Stainless Steel Air Piping” is Reference Number 018.

S. Provide and Install Schd. 40, 316 Stainless Steel Potassium Permanganate Piping

1. Measurement of payment for “Provide and Install Schd. 40, 316 Stainless Steel Potassium Permanganate Piping” will be on a lump sum basis for all materials and work required to install 1” potassium permanganate piping with connection to the intake manifold and a final termination at the upper level of the existing pump station including all necessary valves and connections as shown on the drawings.

2. Payment of the liner foot bid price for the “Provide and Install Schd. 40, 316 Stainless Steel Potassium Permanganate Piping” will be full compensation and inclusive for all labor, materials, restraining glands and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for the “Provide and Install Schd. 40, 316 Stainless Steel Potassium Permanganate Piping” is Reference Number 019.

T. Install Replacement Sump Pump

1. Measurement for “Install Replacement Sump Pump” will be made per each for all materials and work required to install one (1) new sump pump at the locations as shown on the drawings. Work will also include removal of the existing sump pump, cleaning of the existing sump and piping the new pump to the existing sump discharge.
2. Payment of the bid price for each “Install Replacement Sump Pump” will be full compensation and inclusive of all labor, materials and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for “Install Replacement Sump Pump” is Reference Number 020.

U. Provide and Install 10” Emergency Pump Connection

1. Measurement for “Provide and Install 10” Emergency Pump Connection” will be made per each for all materials and work required to install one (1) 10” gate valve, associated piping and fittings, and a concrete pad at the locations as shown on the drawings.
2. Payment of the bid price for each “Provide and Install 10” Emergency Pump Connection” will be full compensation and inclusive of all labor, materials and equipment required to complete the work as described above and as indicated on the drawings.
3. The payment item for “Provide and Install 10” Emergency Pump Connection” is Reference Number 021.

V. Bank Restoration and Seeding

1. Measurement of payment for “Bank Restoration and Seeding” shall be on a lump sum basis for grading within the limits of the work and placement

of seed and fertilizer on this area. This item will be considered complete when grass is firmly established on all surfaces.

2. Payment of the lump sum bid price for “Bank Restoration and Seeding” will be full compensation for all labor, materials, and equipment as described, and indicated above and as indicated on the drawings.
3. The payment item for the “Seeding and Fertilizing” shall be Reference Number 022.

X. Electrical Feeder Relocations

1. Measurement of payment for “Electrical Feeder Relocations” shall be on a lump sum basis for relocation of the electrical power supply feeders including conduit from river side of levee and cables from the Lions Water Treatment Plant building to the existing feeder termination at the pump station as shown on the drawings.
2. Payment of the lump sum bid price for “Electrical Feeder Relocations” will be full compensation for all labor, materials, and equipment as described, and indicated above and as indicated on the drawings.
4. The payment item for the “Electrical Feeder Relocations” shall be Reference Number 023.

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SECTION 01040

COORDINATION

1.0 GENERAL

1.01 DESCRIPTION OF RESPONSIBILITIES

- A. The Contractor shall coordinate scheduling, submittals and work of the various sections of the Specification to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.
- B. Each Contractor and subcontractor involved shall assume all liability, financial or otherwise, in connection with his work and shall protect and save harmless the Owner from any and all damages or claims that may arise because of inconvenience, delay or loss experienced by him because of the presence and operations of any other Contractors working within the limits of this project.
- C. The Contractor shall arrange his work and shall place and dispose of the materials being used so as not to interfere with operations of others working in the surrounding area. He shall join his work with that of others in an acceptable manner and shall perform it in proper sequence to that of the others.
- D. The contracting agency will not be responsible for any delays or inconvenience to the Contractor in carrying on his work while any public utility companies or agencies are making necessary adjustments of their fixtures or appurtenances, nor will the contracting agency be responsible for any cost incurred by the Contractor or utility owners for making said adjustments, by delays, etc.

1.02 EASEMENTS AND RIGHT-OF-WAY (SERVITUDE)

- A. The easements and rights-of-way for the work will be provided by the Owner, Contractor shall confine his construction operations within the limits indicated on the drawings, and shall use due care in placing construction tools, equipment, excavated materials, and pipeline materials and supplies, so as to cause the least possible damage to property and interference with traffic.
- B. All Work performed and all operations of Contractor, his employees or Subcontractors, within the limits of levee rights-of-way, shall be in conformity with the requirements and be under the control (through Owner) of the authority owning, or having jurisdiction over and control of, the right-of-way.

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 absolutely 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 shall conform to any applicable local ordinance and, whether delivered orally or in writing, shall include appropriate information concerning the interruption and instruction on how to limit their inconvenience.
- C. Utilities and other concerned agencies shall be contracted at least 24 hours prior to cutting or closing streets or other traffic areas or excavating near underground utilities or pole lines.

1.04 CONNECTIONS TO EXISTING FACILITIES

- A. Unless otherwise specified or indicated, Contractor shall make all necessary connections to existing facilities including structures, drain lines, and utilities such as water, and electric. In each case, Contractor shall receive permission from Owner or the owning utility prior to undertaking connections. Contractor shall protect facilities against deleterious substances and damage.
- B. Connections to existing facilities which are in service shall be thoroughly planned in advance, and all required equipment, materials and labor shall be on hand at the time of undertaking the connections. Work shall proceed continuously (around the clock) if necessary to complete connections in the minimum time. Operation of valves or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the owning utility.
- C. Materials shall be cut and removed to the extent indicated on the Plans or as required to complete the Work. Materials shall be removed in a careful manner with no damage to adjacent facilities or materials. Materials which are not salvageable shall be removed from the site by Contractor.
- D. All Work and existing facilities affected by cutting operations shall be restored with new materials, or with salvaged materials acceptable to Engineer, to obtain a finished installation with the strength, appearance, and functional capacity required. If necessary, entire surfaces shall be patched and refinished.

2.0

PRODUCTS

NOT USED

3.0

EXECUTION

NOT USED

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SECTION 01045

CUTTING AND PATCHING

1.0 GENERAL

1.01 DESCRIPTION

- A. Contractor shall be responsible for all cutting, fitting and patching, including excavation and backfill, required to complete the Work or to:
1. Make its several parts fit together properly.
 2. Uncover portions of the Work to provide for installation of ill-timed work.
 3. Remove and replace defective work.
 4. Remove and replace work not conforming to requirements of Contract Documents.
 5. Remove samples of installed work as specified for testing.
 6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

1.02 SUBMITTALS

- A. The Contractor shall submit a written request to the Owner's Representative well in advance of executing any cutting or alteration which may affect:
1. The work of the Owner or any separate contractor.
 2. The structural value or integrity of any element of the Project.
 3. The integrity of effectiveness of weather-exposed or moisture- resistant elements or systems.
 4. The efficiency, operational life, maintenance or safety of operational elements.
 5. The visual qualities of sight-exposed elements.
- B. The request shall include:
1. Identification of the Project.
 2. Location and description of the affected work.
 3. The necessity for cutting, alteration or excavation.
 4. The effect on the work of the Owner or any separate contractor, or on the structural or weatherproof integrity of the Project.
 5. Description of the proposed work:
 - a. The scope of cutting, patching, alteration, or excavation.
 - b. The trades who will execute the work.
 - c. Products proposed to be used.
 - d. The extent of refinishing to be done.
 6. Alternatives to cutting and patching.

7. Cost proposal, when applicable.
 8. Written permission of any separate contractor whose work will be affected.
 9. Date and time work will be executed.
- C. Should conditions of the work or the schedule indicate a change of products from the original installation, Contractor shall submit a request substitution.
- 2.0 PRODUCTS
- 2.01 MATERIALS
- A. Comply with specifications and standards for each specific product involved.
- 3.0 EXECUTION
- 3.01 INSPECTION
- A. The Contractor shall inspect existing conditions of the Project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, the Contractor shall inspect the conditions affecting the installation of products, or performance of the work. The commencement of any cutting or patching means acceptance of existing conditions.
- C. Report unsatisfactory or questionable conditions to the Owner's Representative in writing; do not proceed with the work until the Owner's Representative has provided further instructions.
- 3.02 PREPARATION
- A. The Contractor shall provide adequate temporary support as necessary to assure the structural value or integrity of the affected portion of the Work.
- B. Provide devices and methods to protect other portions of the Project from damage.
- C. Provide protection from the elements for that portion of the Project which may be exposed by cutting and patching work, and maintain excavations free from water.

3.03 PERFORMANCE

- A. The Contractor shall execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs.
- B. Provide devices and methods to protect other portions of the Project from damage.
- C. Provide protection from the elements for that portion of the Project which may be exposed by cutting and patching work, and maintain excavations free from water.
- D. Execute excavating and backfilling by methods which will prevent settlement or damage to other work.
- E. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- F. Restore work which has been cut or removed; install new products to provide completed Work in accordance with requirements of Contract Documents.
- G. Fit work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- H. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish the entire unit.

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SECTION 01050

FIELD ENGINEERING AND SURVEYING

1.0 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor shall provide and pay for field engineering services and field surveying required for Project.
1. Survey work required in execution of Project.
 2. Civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.

1.02 RELATED REQUIREMENTS

A. DIVISION 1

B. DIVISION 2

1.03 QUALIFICATIONS OF SURVEYOR OR ENGINEER

- A. Registered professional engineer or registered land surveyor of the discipline required for the specific service of the Project, licensed in the State of Louisiana and acceptable to the Owner.

1.04 QUALITY CRITERIA

- A. Contractor shall perform the following:
1. Verify existing grades prior to beginning site preparation. If existing grades are at variance with drawings, notify Engineer and receive instructions prior to proceeding.
 2. Verify limits of the site preparation and earthwork operations. Locate adjacent buildings and appurtenances.
 3. Establish bench marks outside of working limits. Establish two benchmarks, located on the project site, as widely separated as possible.
 4. Verify utility locations, including new construction and existing active and inactive utilities encountered during construction activity.
- B. Notify Engineer, in writing of on-site conditions which are at variance with the Contract Documents. Compare variations in locations, level, plumbness and deflection with allowable tolerances given in the Contract Documents.

1.05 SURVEY REFERENCE POINTS

- A. The basic horizontal and vertical control points for the Project should be those designated on Drawings. Contractor shall verify all existing grades prior to beginning work on the site.
- B. Contractor shall locate verify and protect control points prior to starting work, and preserve all permanent reference points during construction.
 - 1. Make no changes or relocations without prior written notice to Engineer.
 - 2. Report to Engineer when any reference point is lost or destroyed, or required relocation because of necessary changes in grades or locations.
 - 3. Require surveyor to replace Project control points which may be lost or destroyed.
 - a. Establish replacements based on original survey control.

1.06 PROJECT SURVEY REQUIREMENTS

- A. Establish temporary bench marks as needed referenced to data established by survey control points. Record all locations, with horizontal and vertical data, on Project Record Documents.
- B. Establish lines and levels, locate and lay out, by instrumentation and similar appropriate means.
- C. From time to time, as directed by the Engineer, verify layouts by same methods.

1.07 RECORDS

- A. Maintain a complete, accurate log of all control and survey work as it progresses.

1.08 SUBMITTALS

- A. Submit name and address of Surveyor and Professional Engineer to Engineer.
- B. On request of Engineer, submit documentation to verify accuracy of field engineering work.
- C. Submit certificate signed by Registered Engineer or Surveyor certifying that elevations and locations of improvements are in conformance, or non-conformance, with Contract Documents.

D. All field books, notes, and other data developed by Contractor in performing surveys required as part of the Work shall be available to Engineer for examination throughout the construction period.

E. All such data shall be submitted to Engineer with the other documentation required for final acceptance of the Work.

2.0 PRODUCTS

Not Used

3.0 EXECUTION

Not Used

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SECTION 01070

ABBREVIATIONS AND SYMBOLS

1.0 GENERAL

1.01 RELATED REQUIREMENTS: None

1.02 DESCRIPTION

A. Abbreviations used in the Contract Documents are defined as follows:

AA	Aluminum Association
AABC	Associated Air Balance Council
AAMA	American Architectural Manufacturers Association
AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACEC	American Consulting Engineers Council
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AFBMA	Antifriction Bearing Manufacturers Association
AGA	American Gas Association
AGC	Associated General Contractors of America
AGMA	American Gear Manufacturers Association
AHA	American Hardboard Association
AI	Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Movement and Control Association
ANSI	American National Standards Institute
APA	American Plywood Association
API	American Petroleum Institute
APWA	American Public Works Association
ARI	Air Conditioning and Refrigeration Institute
ARIB	Asphalt Roofing Industry Bureau
ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASLA	American Society of Landscape Architects
ASME	American Society of Mechanical Engineers
ASSE	American Society of Sanitary Engineering

ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWI	American Woodworking Institute
AWPA	American Wood Preservers Association
AWPA	American Wood Products Association
AWPB	American Wood Preservers Bureau
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BIA	Brick Institute of America
BHMA	Builders Hardware Manufacturers Association
BOCA	Building Officials Council of America
CE	Corps of Engineers, U.S. Army
CISPI	Cast Iron Soil Pipe Institute
CMA	Crane Manufacturing Association
CPSC	U. S. Consumer Products Safety Commission
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard
CSI	Construction Specifications Institute
DHI	Door and Hardware Institute
DOTD	Louisiana Department of Transportation and Development
EJCDC	Engineers Joint Contract Documents Committee
EPA	Environmental Protection Agency
Fed Spec	Federal Specifications
FDA	Food & Drug Administration
FGMA	Flat Glass Marketing Association
FM	Factory Mutual Engineering Corporation
FMA	Flat Glass Marketing Association
FS	Federal Specifications
FSS	Federal Specifications and Standards, General Services Administration
GA	Gypsum Association
HMI	Hoist Manufacturers Institute
IBBM	Iron Body, Bronze Mounted
ICBO	International Conference of Building Officials
IEEE	Institute Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IFI	Industrial Fasteners Institute
IPCEA	Insulated Power Cable Engineers Association
IPS	Iron Pipe Size
ISA	Instrument Society of America
LSGA	Laminators Safety Glass Association
LSSRB	Louisiana Standard Specifications for Roads and Bridges
MBMA	Metal Building Manufacturers Association

MIL	Military Specification
ML/SFA	Metal Lath/Steel Framing Association
MSS	Manufacturers Standardization Society
NAAMM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBC	National Building Code
NBHA	National Builders Hardware Association
NBS	National Bureau of Standards
NCMA	National Concrete Masonry Association
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NFPA	National Forest Products Association
NPA	National Particleboard Association
NPCA	National Pest Control Association
NPT	National Pipe Thread
NRCA	National Roofing Contractors Association
NSF	National Sanitation Foundation
NSPE	National Society for Professional Engineers
NWMA	National Woodwork Manufacturers Association
NWWDA	National Wood Window and Door Association
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PDI	Plumbing & Drainage Institute
PFI	Pipe Fabricaton Institute
PPI	Plastic Pipe Institute
PS	Product Standards
RCSC	Research Council on Structural Connections
RMA	Rubber Manufacturers Association
SAE	Society of Automotive Engineers
SBCCI	Sothern Building Code Congress International
SCPRF	Structural Clay Products Research Foundation
SCS	Soil Conservation Service, U.S. Department of Agriculture
SDI	Steel Deck Institute
SDI	Steel Door Institute
SFPA	Southern Forest Products Association
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SPI	Society of the Plastics Industry
SPIB	Southern Pine Inspection Bureau
SSPC	Steel Structures Painting Council

STI	Steel Tank Institute
SWI	Sealant and Waterproofers Institute
SWI	Steel Window Institute
TCA	Tile Council of America
TPI	Truss Plate Institute
UL	Underwriters' Laboratories
US	U. S. Bureau of Standards
WPRS	Water and Power Resources Service
WRI	Wire Reinforcement Institute
WWPA	Western Wood Products Association

2.0 PRODUCTS

Not Used

3.0 EXECUTION

Not Used

END OF SECTION

SECTION 01090

REFERENCE STANDARDS AND DEFINITIONS

1.0 GENERAL

1.01 RELATED REQUIREMENTS

NONE

1.02 REFERENCE STANDARDS

- A. Reference to the standards of any technical society, organization, or association, or to codes of local or state authorities, shall mean the latest standard, code, specification, or tentative standard adopted and published at the date of receipt of bids, unless specifically stated otherwise.

1.03 DEFINITIONS

- A. ADVERTISEMENT. A public announcement inviting bids for work to be performed or materials to be furnished.
- B. BASE COURSE. The layer or layers of specified material of designed thickness or a subbase or subgrade to support a surface course.
- C. BIDDER. An individual, partnership, firm, corporation, or any acceptable combination thereof, or joint venture submitting a proposal.
- D. CALENDAR DAY. Every day shown on the calendar, beginning and ending at midnight.
- E. CONTRACTING AGENCY. Levee Board, Parish Council or other governing authority of a Parish, State Office, Agency, Board, Commission, Public Corporation or other political subdivision of the State, in whose name the contract will be executed. The Contracting Agency is further defined in the Notice to Contractors.
- F. CONTRACT BOND. The approved form of security, executed by the Contractor and his surety or sureties, guaranteeing complete execution of the contract and all supplemental agreements pertaining thereto and payment of all legal debts pertaining to construction of the project.
- G. CONTRACT ITEM (Pay Item). A specific unit of work for which a price is provided in the contract.

- H. EQUIPMENT. All machinery and equipment, with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for proper construction and acceptable completion of the work.
- I. EXTRA WORK. An item of work not provided for in the contract as awarded but found essential by the Owner for satisfactory completion of the contract within its intended scope.
- J. HIGHWAY, STREET OR ROAD. A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way. Recommended usage in urban areas - highway or street; in rural areas - highway or road.
- K. INSPECTOR. The Owner's authorized representative assigned to make detailed inspections of contract performance.
- L. INVITATION FOR BIDS. The advertisement for proposals for all work or materials on which bids are required. Such advertisement will indicate location and description of the work, and time and place of opening bid proposals.
- M. LABORATORY. The Owner's testing laboratory or any other testing laboratory approved by the engineer.
- N. MATERIALS. Any substances specified for use in the construction of the project and its appurtenances.
- O. PARISH. The parish in which the specified work is to be done.
- P. PLAN CHANGE. A general term denoting changes to the contract.
- Q. PLANS. The contract drawings which show location, type, and dimensions of the prescribed work and may include layouts, profiles, cross sections and other details.
- R. PROPOSAL. The offer of a bidder, on the prescribed form, to perform the stated work and to furnish the labor and materials at the prices quoted.
- S. PROPOSAL FORM. The prescribed form on which the offer of a bidder must be submitted.
- T. PROPOSAL GUARANTY. The required security furnished with a bid proposal.

- U. RIGHT OF WAY. Land, property or interest therein, reserved for use in constructing, maintaining and protecting an improvement.
- V. SPECIAL PROVISIONS. Additions and revisions to the standard and supplemental specifications covering conditions applicable to the project.
- W. SPECIFIED. Set forth or stipulated in the plans or specifications or elsewhere in the contract documents; such as materials, equipment or methods.
- X. STATE. The State which the project is being constructed or the Governing body of this state acting through its authorized representative.
- Y. STRUCTURES. Bridges, culverts, catch basins, junction boxes, retaining walls, cribbing, manholes, endwalls, buildings, sewers, dams, floodgates, plumbing stations, docks, wharves, levees, boat ramps, pile dolphins, jetties, service pipes, underdrains, foundation drains and other features encountered in the work and not otherwise classed herein.
- Z. SUBBASE. The layer or layers of specified or selected material of designed thickness placed on a subgrade to support a base course.
- AA. SUBGRADE. The surface of a foundation layer upon which the pavement structure and shoulders are constructed.
- BB. SUBSTRUCTURE. That part of the structure below the bearings of simple and continuous spans, skewbacks or arches and tops of footings or rigid frames, including backwalls, wingwalls and wing protection railings.
- CC. SUPERINTENDENT. The Contractor's authorized representative in responsible charge of the work.
- DD. SUPERSTRUCTURE. The entire structure above the substructure.
- EE. SUPPLEMENTAL AGREEMENT. A written agreement made and entered into by and between the Contractor and the Owner covering work not otherwise provided for, revisions in or amendments to terms of the contract or conditions specifically prescribed in the specifications as requiring supplemental agreements. Such supplemental agreement becomes a part of the contract when approved and properly executed.
- FF. SURETY. The corporation, partnership or individual, other than the contractor, executing a bond furnished by the contractor.

2.0

PRODUCTS

Not Used

3.0

EXECUTION

Not Used

END OF SECTION

SECTION 01200

PROJECT MEETINGS

1.0 GENERAL

1.01 WORK INCLUDED

- A. The Owner's Representative may schedule and administer pre-bid and pre-construction meetings, periodic progress meetings, and specially called meetings throughout the progress of the work.
 - 1. Specially called meetings may be held at the job site during normal working hours, as necessary to expedite the progress of the job.
- B. The Owner's Representative shall direct individuals attending the meeting to:
 - 1. Prepare agenda for meetings.
 - 2. Distribute written notice of each meeting.
 - 3. Preside at meetings.
 - 4. Record the minutes; include all significant proceedings and decisions.
 - 5. Reproduce and distribute copies of minutes.
- C. Representatives of Contractors, subcontractors and suppliers attending the meetings shall be qualified and authorized to act on behalf of the entity each represents.
- D. Related Requirements in Other Parts of the Project Manual:
 - 1. Pre-Construction Conferences: Section 01210, 01220 01700.

1.02 PRE-CONSTRUCTION MEETING

- A. After notification that the contract has been executed and prior to the commencement of the Work at the site, the Owner's Representative shall arrange with the Owner, Using Agency and the Contractor to conduct a Pre-Construction Conference.
- B. Location: Project site or where directed by the Owner's Representative.
- C. Attendance:
 - 1. Owner's Representative.
 - 2. Using Agency's Representative.
 - 3. Engineer, his Professional Consultants, and his Project Representative.
 - 4. Contractor.
 - 5. Contractor's Superintendent.
 - 6. Principal Subcontractors.

7. Principal Suppliers and manufacturer's representatives as appropriate.
 8. Others as Appropriate.
- D. The Contractor shall coordinate and be responsible for the attendance of his principal Subcontractors.
- E. The Contractor shall furnish at the time of the pre-construction meeting to the Owner's Representative, the Engineer and Using Agency six (6) copies of the following documents:
1. Schedule of Values.
 2. List of Subcontractors.
 3. List of major material suppliers.
 4. Construction Schedule.
 5. Procurement Schedule.
 6. Shop Drawings and Submittal Schedule
 7. Excavation Plan
 8. Canal Crossing Plan
- F. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The agenda will include:
1. Contractor's tentative schedules.
 2. Transmittal, review, and distribution of Contractor's submittals.
 3. Processing applications for payment. Application format.
 4. Maintaining record documents.
 5. Critical Work sequencing.
 6. Field decisions and Change Orders.
 7. Use of premises, office and storage areas, security, housekeeping, and Owner's needs.
 8. major equipment deliveries and priorities.
 9. Contractor's assignments for safety and first aid.
 10. Submitted or executed bonds and insurance certificates if not previously submitted.
- 1.03 **PROGRESS MEETINGS**
- A. Progress meetings will be scheduled by the Owner's Representative or the Engineer after consulting with the Owner and the Using Agency. These meetings shall be no more often than one per week as required by progress of the work, exclusive of any other meetings scheduled by the Owner's Representative, Owner or Using Agency.

1. It shall be the responsibility of the Owner's Representative to notify the Owner, Using Agency, and the Contractor of the time, place and date of the "Progress Meeting".
 2. It shall be the responsibility of the Contractor to notify all suppliers and subcontractors.
- B. The purpose of these regular meetings is to assess, realistically, the current status and progress of the work, to effect coordination, cooperation and assistance in every practical way and to discuss changes in scheduling, and to resolve other problems that may develop. This should maintain the progress of the project on schedule and complete the project within the contract time.
- C. These meetings will be called as required during progress of the work.
- D. Location of the meetings: The project field office or other location where directed by the Owner's Representative.
- E. Attendance:
1. Owner's representative.
 2. Using Agency's representative.
 3. Engineer, his professional consultants, and his Project Representative.
 4. Contractor.
 5. Contractor's Superintendent.
 6. Principal Subcontractors, and all subcontractors active on the site.
 7. Principal Suppliers and Manufacturer's Representatives.
 8. Others as appropriate.
- F. Suggested Agendum:
1. Review and approve minutes of previous meeting.
 2. Review of work progress since previous meeting.
 3. Note field observations, problems, or conflicts.
 4. Identify problems that impede Construction Schedule.
 5. Develop corrective measures and procedures to regain projected schedule.
 6. Revise Construction Schedule as required.
 7. Plan progress, schedule, during succeeding work period.
 8. Coordination of schedules.
 9. Review submittal schedules; expedite as required to maintain schedule.
 10. Review maintenance of quality and work standards.
 11. Review proposed changes for the effect on Construction Schedule, completion date, and coordination.
 12. Complete other current business.

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SECTION 01210

PRECONSTRUCTION CONFERENCE

1.0 GENERAL

1.01 RELATED WORK

None

1.02 DESCRIPTION

- A. In accordance with the General Conditions, prior to the commencement of Work at the site, a pre-construction conference may be held at a mutually agreed time and place. The conference shall be attended by:
1. Contractor
 2. Principal Subcontractors.
 3. Representatives of principal suppliers and manufacturers as appropriate.
 4. Engineer and his Resident Project Representative.
 5. Representatives of Owner.
 6. Governmental representatives as appropriate.
 7. Others as requested by Contractor, Owner, or Engineer.
- B. Unless previously submitted to Engineer, Contractor shall bring to the conference a tentative schedule for each of the following:
1. Progress.
 2. Procurement.
 3. Values of progress payment purposes.
 4. Shop Drawings and other submittals.
- C. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The agenda will include:
1. Contractor's tentative schedules.
 2. Transmittal, review, and distribution of Contractor's submittals.
 3. Processing applications for payment.
 4. Maintaining record documents.
 5. Critical Work sequencing.
 6. Field decisions and Change Orders.
 7. Use of premised, office and storage areas, security, housekeeping, and Owner's needs.
 8. Major equipment deliveries and priorities.
 9. Contractor's assignments for safety and first aid.

D. The Owner's Representative will preside at the conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

2.0 PRODUCTS

Not Used

3.0 EXECUTION

Not Used

END OF SECTION

SECTION 01220

PROGRESS MEETINGS

1.0 GENERAL

1.01 RELATED WORK

None

1.02 DESCRIPTION

- A. Engineer may schedule and hold regular progress meetings monthly and at other times as requested by the Owner or required by progress of the Work. Contractor, Engineer, and all Subcontractors active on the site shall be represented at each meeting. Contractor may at his discretion request attendance by representatives of his suppliers, manufacturers, and other Subcontractors.

- B. Engineer shall preside at the meetings and provide for keeping and distribution of the minutes. The purpose of the meetings will be to review the progress of the Work, maintaining coordination of efforts, discuss changes in scheduling, and resolve other problems that may develop.

2.0 PRODUCTS

Not Used

3.0 EXECUTION

Not Used

END OF SECTION

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SECTION 01320

PROGRESS REPORTS

1.0 GENERAL

1.01 RELATED REQUIREMENTS

None

1.02 DESCRIPTION

- A. A written progress report shall be furnished to Engineer with each application for progress payment. If the Work falls behind schedule, Contractor shall submit additional progress reports at such intervals as Engineer may request.
- B. Each progress report shall include sufficient narrative to describe current and anticipated delaying factors, their effect on the construction schedule, and proposed corrective actions. Any Work reported complete, but which is not readily apparent to Engineer, must be substantiated with satisfactory evidence. Each progress report shall be on Contractor's letterhead and signed by the Contractor's representative.
- C. Each progress report shall also include three prints of the accepted graphic schedule marked to indicate actual progress.

2.0 PRODUCTS

Not Used

3.0 EXECUTION

Not Used

END OF SECTION

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SECTION 01340

SUBMITTALS

1.0 GENERAL

1.01 RELATED REQUIREMENTS

A. DIVISION 0

B. DIVISION 1

1.02 DESCRIPTION

- A. Engineering data covering all equipment and fabricated materials to be furnished under this contract shall be submitted to the Engineer for review after the contractor verifies all applicable field measurements, quantities, dimensions, performance criteria, etc. This data shall include drawings and descriptive information in sufficient detail to show the kind, size, arrangement, and operation of component materials and devices; the external operation of connections, anchorages, and supports required, wiring diagrams; piping diagrams; controls; performance characteristics and capacities; and dimensions and clearances needed for installation and correlation with other materials and equipment. If manufacturer's standard drawings are submitted, modify and delete information that is not applicable to the Work. The Engineer will not be required to review incomplete submittals.
- B. All submittals, regardless of origin, shall be stamped with the approval of Contractor and identified with the name and number of this contract, Contractor's name, date, and references to applicable specification paragraphs and Contract Drawings. By approving Submittals, Contractor represents that he has determined and verified all materials, field measurements and field construction criteria related thereto and that he has checked and coordinated the information within the submittal with the requirements of the Work. Each submittal shall indicate the intended use of the item in the Work. When catalog pages are submitted, applicable items shall be clearly identified. The current revision, issue number, and date shall be indicated on all drawings and other descriptive data. Submittals shall reference sheet and/or section numbers of the Contract Documents to which they relate.
- C. All deviations from the Contract Documents shall be specifically and clearly identified on each submittal and shall be tabulated in Contractor's letter of transmittal. Such submittals shall, as pertinent to the deviation, indicate essential details of all changes proposed by Contractor (including

modifications to other facilities that may be a result of the deviation) and all required piping and wiring diagrams.

- D. Contractor shall accept full responsibility for the completeness of each submission, and, in the case of a resubmission, shall verify that all exceptions previously noted by Engineer have been taken into account. In the event that more than one resubmission is required because of failure of Contractor to account for exceptions previously noted, Contractor shall reimburse Owner for the charges of Engineer for review of the additional resubmission.
- E. Any need for more than one resubmission, or any other delay in obtaining Engineer's review of submittals, will not entitle Contractor to extension of the Contract Time unless delay of the Work is directly caused by a change in the Work authorized by a Change Order or by failure of Engineer to return any submittal within 28 calendar days after its receipt in the Engineer's office.
- F. Engineer's review of drawings and data submitted by Contractor will cover only general conformity to the Contract Documents. Engineer's review does not indicate a thorough review of all dimensions, quantities, and details of the material, equipment, device, or item shown. Engineer's review of submittals shall not relieve Contractor from responsibility for errors, omissions, or deviations, or responsibility for compliance with the Contract Documents.
- G. Eight (8) copies of each drawing and necessary data shall be submitted to Engineer. Engineer will not accept submittals from anyone but Contractor. Submittals shall be consecutively numbered in direct sequence of submittal and without division by subcontracts or trades. Resubmittals shall bear the number of the first submittal followed by a letter (A, B, etc.,) to indicate the sequence of the resubmittal.
- H. When the drawings and data are returned marked REJECTED or REVISE AND RESUBMIT, the corrections shall be made as required, as noted thereon, and as indicated by Engineer and corrected copies shall be resubmitted. Commence no portion of work requiring submittals until submittal has been approved by Engineer.
- I. When corrected copies are resubmitted, Contractor shall, in writing, direct specific attention to all revisions and shall list separately any revisions made other than those called for by Engineer on previous submissions. Resubmittals shall be clearly and obviously labeled as such.
- J. When the drawings and data are returned marked REVIEWED or REVIEWED AS NOTED, no additional copies need be furnished. Contractor is responsible for distributing copies to his subcontractors and material suppliers.

1.03 **SAMPLES**

- A. Samples shall be of sufficient size and quantity to:
1. Clearly illustrate the functional characteristics of the product with integrally related parts and attachment devices.
 2. Clearly illustrate the full range of color texture, and pattern.
 3. Serve as a sample for testing.
- B. Label each sample with identification required for transmittal letter.

1.04 **EQUIPMENT CONFIGURATIONS**

The indicated sizes of equipment shown on the plans and specified herein represent sizes that were used for the design. In the event the Contractor, supplier, or manufacturer changes the size of the equipment, the changes to the adjacent equipment, piping, or required additional wiring in order to provide for adaptation of equipment to the project shall be coordinated by the Contractor and shall be called to the attention of the Engineer at the time of the affected submittal. Any expense incurred in changing equipment sizes shall be borne by the Contractor.

2.0 **PRODUCTS**

Not Used

3.0 **EXECUTION**

3.01 **AGREEMENT IN PRODUCTION OF SUBMITTALS**

- A. Contractor agrees that Shop Drawing Submittals processed by the Engineer are not Change Orders; that the purpose of Shop Drawing Submittals by the Contractor is to demonstrate to the Engineer that the Contractor understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to furnish and install and by detailing the fabrication and installation methods he intends to use.

Contractor further agrees that if deviations, discrepancies, or conflicts between Shop Drawing Submittals and the contract documents in the form of design drawings and specifications are discovered either prior to or after Shop Drawing Submittals are processed by the Engineer, the design drawings and specifications shall control and shall be followed.

END OF SECTION

SECTION 01360

SITE CONDITIONS SURVEY

1.0 GENERAL

1.01 DESCRIPTION OF WORK INCLUDED

- A. The Contractor, prior to mobilizing onto the jobsite, shall conduct a detailed survey of the jobsite, surrounding area and access routes.
- B. This survey is intended to document existing conditions with respect to any conditions that may be noticed after construction begins. Post construction conditions shall also be compared to this data.
- C. This documentation shall be provided by the Contractor and submitted to the Engineer as preparation to resolve any damage claims that may arise due to the construction of this project. All costs associated with this survey shall be included in other bid items.
- D. These records shall become property of the Owner upon delivery to the Engineer or Owner's Representative.

1.02 OWNER'S QUALITY AUTHORITY

The Owner shall have the authority to reject all or any portion of the photographic documentation not conforming to the Specifications. Those rejected portions shall be re-photographed at no additional cost to the Owner.

2.0 PRODUCTS

2.01 COVERAGE OF THE SURVEY

- A. Photographs shall be taken of the exterior of all public and private buildings and structures along any pipeline work and within 500' of any excavation or pile driving.
- B. The Contractor shall make every attempt to gain permission from property owners for access to private property for documenting pre-construction conditions. If a property owner refuses access after multiple attempts, the Contractor will notify the Engineer and log all contacts with the property owner. The attempts shall include a formal letter and upon refusal, a registered or certified letter to supplement the log of verbal and/or telephone contacts.

- C. Elevations shall be taken on house slabs, driveway pavement, walkway paving, sidewalks, and paving elements in street sections adjacent to the project site. These elevations shall be recorded and produced under the supervision of a registered licensed surveyor in the State of the project site. Elevations on abutting drives and walks shall be taken at approximately 20-foot intervals and at the point of juncture with any structure to which they are attached. In addition, elevations shall be taken of all corners of house slabs along the job route.
- D. Video tapes of the access routes shall be made to show existing street and right-of-way conditions. The camera shall be mounted on a tripod or platform upon a vehicle which places the camera approximately 10' above the path being travelled upon. The travel speed of the vehicle shall be no greater than 48 feet per minute. Photographs shall be taken to supplement the video tapes to give more detailed documentation of pre-existing conditions.
- E. A carefully prepared log shall be maintained to show the name of the individual taking the photographs, the stationing as shown on the Plans, or as directed by the Engineer, the name of the street, easement or building being documented, the project name, and the direction of travel and the viewing side.

2.02 PHOTOGRAPHS

- A. All still photographs shall be taken on digital format.
- B. Photographs shall be sharp clear, bright, well focused with accurate colors free from distortion or any other form of picture imperfection.
- C. The date, time, and identification number of each photograph shall be displayed onto the negative and print.
- D. The Engineer and Owner shall be furnished with digital copies (minimum 8 megapixel) of each exposure with description on photo. Provide 2 hard copies and 1 digital copy on digital media (CD, DVD).
- E. No photography shall be done during periods of significant precipitation, mist or fog.
- F. The photography shall only be done when sufficient sunlight is present to properly illuminate the subjects of recording. Proper flash lighting shall be used inside the buildings and less lighted areas.

END OF SECTION

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SECTION 01380

CONSTRUCTION PHOTOGRAPHS

1.0 GENERAL

1.01 RELATED WORK

None

1.02 DESCRIPTION

- A. The Contractor shall be responsible for the production of construction photographs showing the regular progress of the Work.
- B. Before commencement of the Work and continuing through the duration of the contract, the Contractor shall take not less than ten (10) exposures consisting of different subjects or angles of view for each exposure. The exposures shall be taken from various locations on the construction site for adequate documentation of the Work. The photographer shall attempt to use the same locations for four (4) exposures at each interval. The exposures shall be taken at intervals not exceeding two (2) weeks in duration. The Contractor shall take ten (10) additional exposures at the completion of the Work as directed by the Engineer. All photographs shall be furnished to the Engineer within two (2) weeks after each exposure.
- C. All photographs shall be produced by a competent photographer, and shall be color photographs of commercial quality. All digital image files and three 4" x 6" prints of each view shall be submitted, bound in 3-ring, hard cover, loose leaf binders. Prints shall be identified with contract number, description of view and date. Prints shall be enclosed in clear plastic sheets in binders, and marked with the name and number of the contract, name of Contractor, description and location of view, and date photographed. Photographs shall be glossy printed on single weight paper and shall be taken with an 8.0 megapixel or greater digital formatted cameras. All photography shall be at the Contractor's expense. Engineer shall transmit, suitably bound, one copy of each photograph to Owner.

2.0 PRODUCTS

Not Used

3.0 EXECUTION

Not Used

END OF SECTION

SECTION 01400

QUALITY CONTROL

1.0 GENERAL

1.01 QUALITY CONTROL, GENERAL

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship on this project.
- B. Perform work only by persons qualified by equivalent applicable union standards to produce workmanship of the specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.
- D. Comply with manufacturer's instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, notify and request clarification from Engineer before proceeding.

1.02 SITE INVESTIGATION AND CONTROL

- A. The Contractor shall verify all dimensions in the field and shall check field conditions continuously during construction. The Contractor shall be solely responsible for any inaccuracies built into the Work due to his failure to comply with this requirement.
- B. The Contractor shall inspect related, adjacent, and appurtenant Work and shall report in writing to the Engineer any conditions that will prevent proper completion of the Work. Failure to report any such conditions shall constitute acceptance of all site conditions, and any required removal, repair or replacement caused by unsuitable conditions shall be performed by the Contractor at their sole cost and expense.

1.03 INSPECTION OF THE WORK

- A. The Work shall be conducted under the general observation of the Engineer and shall be subject to inspection by representatives of the Engineer acting on behalf of the Owner to insure strict compliance with the requirements of the Contract Documents. Such inspection may include mill, plant, shop or field inspection, as required. The Engineer shall be permitted access to all parts of

the Work, including plants where materials or equipment are manufactured or fabricated.

- B. The presence of the Engineer or any inspector(s), however, shall not relieve the Contractor of the responsibility for the proper execution of the work in accordance with all requirements of the Contract Documents. Compliance is a duty of the Contractor, and said duty shall not be avoided by any act or omission on the part of the Engineer or any inspector(s).
- C. All materials and articles furnished by the Contractor shall be subject to rigid inspection, and no materials or articles shall be used in the Work until they have been inspected and accepted by the Owner or his representative. No Work shall be backfilled, buried, cast in concrete, hidden or otherwise covered until it has been inspected. Any Work so covered in the absence of inspector shall be subject to uncovering. Where uninspected work cannot be uncovered, such as in concrete cast over reinforcing steel, all such Work shall be subject to demolition, removal and reconstruction under proper inspection, and no additional payment will be allowed therefor.

1.04 TIME OF INSPECTIONS AND TESTS

- A. Samples and test specimens required under these Specifications shall be furnished and prepared for testing in ample time for the completion of the necessary tests, analyses and reporting of results before said articles or materials are to be used. The Contractor shall furnish and prepare all required test specimens at its own expense. Except as otherwise provided in the Contract Documents, performance of the required tests will be by the Owner, and all costs thereof will be borne by the Owner at no extra cost to the Contractor; except, that the costs of any tests which show unsatisfactory results shall be borne by the Contractor.
- B. Whenever the Contractor is ready to backfill, bury, cast in concrete, hide or otherwise cover any Work under the Contract, the Engineer shall be notified not less than 24 hours in advance to request inspection before beginning any such Work of covering. Failure of the Contractor to notify the Engineer at least 24 hours in advance of any such inspections shall be reasonable cause for the Engineer to order a sufficient delay in the Contractor's schedule to allow time for such inspections and any remedial or corrective Work required, and all costs of such delays, including its effect upon other portions of the Work, shall be borne by the Contractor. Payment for items that are built, uninspected, or unverified may be delayed by the Engineer until satisfactory evidence of compliance is attained.

1.05 SAMPLING AND TESTING

- A. When not otherwise specified, all sampling and testing shall be in accordance with methods prescribed in the current standards of the ASTM or related standard entity, as applicable to the class and nature of the article or materials considered; however, the Owner reserves the right to use any generally-accepted system of inspection which, in the opinion of the Engineer, will insure the Owner that the quality of the workmanship is in full accordance with the Contract Documents.
- B. Any waiver of any specific testing or other quality assurance measures, whether or not such waiver is accompanied by a guarantee of substantial performance as a relief from the specified testing or other quality assurance requirements as originally specified, and whether or not such guarantee is accompanied by a performance bond to assure execution of any necessary corrective or remedial Work, shall not be construed as a waiver of any technical or qualitative requirements of the Contract Documents.
- C. Notwithstanding the existence of such waiver, the Engineer shall reserve the right to make independent investigations and tests as specified in the following paragraph and, upon failure of any portion of the Work to meet any of the quantitative requirements of the Contract Documents, shall be reasonable cause for the Engineer to require the removal or correction and reconstruction of any such Work.
- D. In addition to any other inspection or quality assurance provisions that may be specified, the Engineer shall have the right to independently select, test and analyze, at the expense of the Owner, additional test specimens of any or all of the materials to be used. Results of such tests and analyses shall be considered along with the tests and analyses made by the Contractor to determine compliance with the applicable specifications for materials so tested or analyzed; provided that wherever any portion of the Work is discovered, as a result of such independent inspection and investigation, and all costs of removal, correction and reconstruction, or repair of any such Work shall be borne by the Contractor.

1.06 RIGHT OF REJECTION

- A. The Engineer, acting for the Owner, shall have the right, at all times and places, to reject any articles or materials to be furnished herein which, in any respect, fail to meet the requirements of the Contract Documents, regardless of whether the defects in such articles or materials are detected at the point of manufacture or after completion of the Work at the site. If the Engineer or inspector, through an oversight or otherwise, has accepted materials or Work

which is defective or which is contrary to the Contract Documents, such material, no matter in what stage or condition of manufacture, delivery or erection, may be rejected by the Engineer or the Owner.

- B. The Contractor shall promptly remove rejected articles or material from the site of the Work after notification of rejection.
- C. All costs of removal and replacement of rejected articles or materials from the site of the Work after notification of rejection shall be borne by the Contractor.

1.07 TESTING LABORATORY SERVICES

- A. The Owner will select and pay for the services of an independent testing laboratory to perform specified testing quality control and services.
 - 1. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
 - 2. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the Work of the Contract.
- B. Related Requirements
 - 1. Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities as mentioned in the Conditions of the Contract.
 - 2. Certification of Products indicated in respective Specification Sections.
- C. Testing laboratory inspecting, sampling, and testing is required for, but not limited to:
 - 1. Soils Compaction and Control.
 - 2. Cast-in-Place Concrete.
- D. Qualification of Laboratory
 - 1. Meet "Recommended Requirements of Independent Laboratory Qualification," latest edition, published by American Council of Independent Laboratories.
 - 2. Meet basic requirements of ASTM E 329, "Standard Recommended Practice for inspection and Testing Agencies for Concrete, Steel and Bituminous Materials as Used in Construction".
 - 3. Authorized to operate in the State in which the Project is located.
- E. Laboratory Duties
 - 1. Cooperate with Engineer and Contractor; provide qualified personnel after due notice.

2. Perform specified inspections, sampling and testing and reporting of results of materials and methods of construction:
 - a. Comply with specified standards.
 - b. Ascertain compliance of materials with requirements of Contract Documents.
 - c. Tests and inspections shall be conducted in accordance with specified requirements and if not specified, in accordance with applicable standards of American Society of Testing and Materials and other recognized authorities as applicable.
3. Promptly notify Engineer and Contractor of observed irregularities or deficiencies of work or products.
4. Promptly submit written reports of each test and inspection; at least one copy each to Engineer, Owner, and Contractor.
5. Perform any additional tests as required by the Engineer or Owner.

F. Limitations of Authority of Testing Laboratory.

1. Laboratory is not authorized to:
 - a. Release, revoke, alter or enlarge any requirements of Contract Documents.
 - b. Approve or accept any portion of the Work.
 - c. Perform any duties of the Contractor.

G. Contractor's Responsibilities

1. Cooperate with laboratory personnel, provide access to Work and to Manufacturer's operations.
2. Provide to the laboratory and to the Engineer the preliminary design mix proposed to be used for concrete and other materials and mixes which require control by the testing laboratory.
3. Furnish copies of Products test reports as requested.
4. Furnish incidental labor and facilities:
 - a. To provide access to Work to be tested.
 - b. To obtain and handle samples at the Project Site or at the source of the product to be tested.
 - c. To facilitate inspections and tests.
 - d. For protection, storage and curing of test samples.
5. Costs of tests, samples and specified material, where the substitution is requested by the Contractor and the tests are necessary in the opinion of the Engineer to establish equality qualified with specified items, shall be borne by the Contractor.
6. Notify laboratory and Owner's Representative sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.

7. Employ and pay for the services of a separate, equally qualified independent testing laboratory to perform additional inspections, sampling and testing required:
 - a. For the Contractor's convenience.
 - b. When initial tests indicate Work does not comply with Contract Documents.
 - c. When required by laws, ordinances, rules, regulations, orders or approvals of public authorities.

2.0 PRODUCTS

NOT USED

3.0 EXECUTION

NOT USED

END OF SECTION

SECTION 01510

TEMPORARY UTILITIES

1.0 GENERAL

1.01 RELATED WORK

None

1.02 TEMPORARY UTILITIES

- A. Comply with National Electric Code
- B. Contractor shall provide and maintain all temporary utilities such as heating, lighting and electricity for the operation of Contractor's plant or equipment or for any other use by Contractor. Heating, air conditioning and lighting shall be maintained at the project office and project site if applicable until the Work is granted final acceptance. General construction and safety lighting: five footcandles minimum; and finishing work and testing: 25 footcandles minimum.
- C. Contractor shall discover characteristics of available sources of electrical power (voltage, phases, amps, etc.) and shall coordinate with his needs as required.

1.03 TEMPORARY TELEPHONE SERVICE

- A. Contractor shall make all necessary arrangements with the telephone utility for telephones in the temporary field office(s) for the duration of Project. All telephone numbers shall be in the name of the Contractor, and all charges after installation shall be billed to and paid by the Contractor.
- B. All Contractors and others performing work or furnishing services at the site shall be permitted to use Contractor's telephone without charge for toll-free calls pertaining to the Work.

1.04 TEMPORARY WATER

- A. All water (including extensions of lines and connections) required for and in connection with the Work to be performed and for any specified tests of piping or for any other use as may be required for proper completion of the Work shall be provided by and maintained at the expense of the Contractor. No separate payment for water used or required will be made and all costs in connection therewith shall be included in the contract bid price.

- B. Size piping to supply construction needs.
- C. All drinking water on the site during construction shall be furnished by the Contractor and shall be bottled water.

1.05 TEMPORARY SANITARY FACILITIES

- A. Contractor shall furnish temporary sanitary facilities at the site, as provided herein, for the needs of all construction workers and other performing work or furnishing services on the Project.
- B. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 men. Contractor shall enforce the use of such sanitary facilities by all personnel at the site.

1.06 TEMPORARY VENTILATION

- A. Provide ventilation to prevent accumulation of dust, fumes or gases and to properly cure materials and disperse humidity.

2.0 PRODUCTS

Not Used

3.0 EXECUTION

3.01 REMOVAL

- A. Completely remove all temporary utilities when their use is no longer required. Clean and repair damage caused by temporary installation.
- B. Relocate temporary facilities during construction as required by progress of the Work at no additional cost to the Owner.

END OF SECTION

SECTION 01530

BARRIERS AND ENCLOSURES

1.0 GENERAL

1.01 RELATED WORK

- A. Furnish, install and maintain suitable barriers as required to maintain security to prevent public entry and to protect the Work and existing facilities from construction operations. Remove the barriers when no longer needed, or at completion of Work.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with federal, state and local codes and regulations.

1.03 BARRICADES AND LIGHTS

- A. All streets, roads, driveways and other thoroughfares which are closed to traffic shall be protected by effective barricades on which shall be placed acceptable warning signs. Barricades shall be located at the nearest intersection on each side of the blocked section.
- B. All open trenches and other excavations shall have suitable barricades, signs and lights to provide adequate protection to the public. Obstructions such as material piles and equipment shall be provided with similar warning signs and lights.
- C. All barricades and obstructions shall be illuminated with warning lights from sunset to sunrise. Material storage and conduct of the Work on or alongside streets and driveways shall cause the minimum obstruction and inconvenience to the traveling public as possible.
- D. All barricades, lights and other protective devices shall be installed and maintained in conformity with the "Louisiana Manual on Uniform Traffic Control Devices", 1978 and latest revision.

1.04 FENCES

- A. All existing fences affected by the Work shall be maintained by Contractor until completion of the Work. Fences which interfere with construction operations shall not be relocated or dismantled until written permission is obtained from the owner of the fence, and the period the fence may be left relocated and dismantled has been agreed upon. Where fences must be

maintained across the construction easement, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use. Fences or gates which have been disturbed or which have been opened must be closed when directed by the Owner or Engineer within 12 hours of any such direction. If the Contractor fails to comply with any of this type of direction the Owner shall retain the right to remedy any fence removal with other forces and deduct monies spent from monies due the Contractor.

- B. Upon completion of the Work, Contractor shall restore all fences to their original or to a better condition and to their original location as needed.

2.0 PRODUCTS

2.01 GENERAL

- A. Materials may be new or used suitable for the intended purpose, but must not violate requirements of applicable codes and standards.

3.0 EXECUTION

Not Used

END OF SECTION

SECTION 01540

SECURITY

1.0 GENERAL

1.01 RELATED WORK

None

1.02 PROTECTION OF WORK

- A. Contractor shall be responsible for protection of the site, and all work, materials, equipment and existing facilities thereon, against theft, vandals, and other unauthorized persons.
- B. No claim shall be made against Owner by reason of any act of an employee or trespasser, and Contractor shall make good all damage to Owner's property resulting from his failure to provide security measures as specified.
- C. Security measures shall be at least equal to those usually provided to protect the existing facilities during normal operation, but shall also include such additional security fencing, barricades, lighting, watchman services and other measures as required to protect the site.
- D. Maintain security of the limited access areas as required by the Owner.
- E. The work shall be under the charge and care of the Contractor until final acceptance. The Contractor shall take precautions against damages to the work by action of the elements or from other cause, and shall satisfactorily repair any damaged work at his expense. In case of suspension of work, the Contractor shall be responsible for all materials and shall properly store them if necessary, and shall erect temporary structures where necessary.

1.03 PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- A. Contractor shall protect, shore, brace, support and maintain all above ground and underground pipes, conduits, drains and infrastructure items uncovered or otherwise affected by his construction operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences and other surface structures affected by construction operations, together with all sod and shrubs in yards and parkings, shall be restored to their original conditions, whether within or outside the easement.
- B. All replacements shall be made with new materials. No trees shall be removed outside of the permanent easement, except where authorized by

Engineer. Whenever practicable, Contractor shall tunnel beneath trees in yards and parking areas when on or near the line of trench. Hand excavation shall be employed as necessary to prevent injury to trees. Trees standing shall be adequately protected against damage by construction operations.

- C. Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges and any other public or private property, regardless of location or character, which may be caused by transporting equipment, materials or men to or from the Work or any part of site thereof, whether by him or his Subcontractors. Contractor shall make satisfactory and acceptable arrangements with the owner of, or the agency or authority having jurisdiction over, the damaged property concerning its repair or replacement or payment of costs incurred in connection with the damage.

- C. All fire hydrants, water control valves, and other facilities of public use shall be kept free from obstruction and available for use at all times. Fire hydrants to be removed and relocated shall be done as quickly as possible.

2.0 PRODUCTS

Not Used

3.0 EXECUTION

3.01 PERFORMANCE OF SECURITY MEASURES

- A. If the Contractor fails to comply with the provisions of this section, the Engineer will immediately notify the Contractor, in writing, of such noncompliance. If the Contractor fails to remedy unsatisfactory maintenance within 48 hours after receipt of such notices, the Engineer may immediately proceed to maintain the project, and the cost of this maintenance will be deducted from payments for the work.

- B. If the unsatisfactory maintenance results in a condition that is hazardous to life, health or property, the Engineer will immediately effect necessary repairs and deduct the cost of such repairs from payments for the work.

END OF SECTION

SECTION 01560

TEMPORARY CONTROLS

1.0 GENERAL

1.01 RELATED WORK

None

1.02 DUST CONTROL

- A. Contractor shall take reasonable measures to prevent or minimize unnecessary air-borne dust. Earth surfaces subject to dusting shall be kept moist with water or by application of a chemical dust suppressant. Dusty materials in piles or in transit shall be covered to prevent blowing.
- B. Buildings or operating facilities which may be affected adversely by dust shall be adequately protected from dust.

1.03 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 operations 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 to minimize amount of bare soil exposed at one time. 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.

1.04 NOISE CONTROL

- A. Contractor shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound levels in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.
- B. During construction activities on or adjacent to occupied buildings, and when appropriate, Contractor shall erect screens or barriers effective in reducing

noise in the building; and shall conduct his operations to avoid unnecessary noise which might interfere with the activities of building occupants.

1.05 POLLUTION CONTROL

- A. 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 of watercourse other than sanitary sewers.
- B. 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.

1.06 SURFACE WATER CONTROL

- A. The facilities to be constructed are located in an area that may be subject to heavy rainfall and flooding. During the construction period, Contractor shall provide temporary protection as necessary to prevent flood damage to new and existing facilities and shall be responsible for any damage that may result from flooding. Additionally the Contractor shall provide adequate flow area to the existing stations as to not impede its pumping capacity.
- B. Contractor shall provide for the drainage of storm-water and such water as may be applied or discharged on the site in performance of the Work. Drainage facilities (and pumping operations as necessary) shall be adequate to prevent damage to the Work, the site and adjacent property. Drains shall not be blocked by any of the Contractor's activities as flooding may be caused by any impedance to existing storm water flow.
- C. Existing drainage channels and conduits shall be cleaned, enlarged or supplemented as necessary to carry all increased runoff attributable to Contractor's operations. Dikes shall be constructed as necessary to divert increased runoff from entering adjacent property (except in natural channels), to protect Owner's facilities and the Work, and to direct water to drainage channels or conduits. Ponding shall be provided as necessary to prevent downstream flooding. The Contractor must obtain permission from the Owner before beginning any of the above mentioned work.

1.07 DEBRIS CONTROL

- A. Remove debris, empty crates, waste, etc. from building and site at the end of each day's work and leave grounds clean and orderly. Keep driveways, entrances and walks clean and clear at all times.

2.0 PRODUCTS

Not Used

3.0 EXECUTION

Not Used

END OF SECTION

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SECTION 01600

MATERIAL AND EQUIPMENT

1.0 GENERAL

1.01 RELATED REQUIREMENTS

A. Section 01620 - Storage and Protection

1.02 DESCRIPTION

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.
4. Do not use material or equipment for any purpose other than that for which it is designed or is specified.
5. Whenever an article, device or piece of equipment specified herein (or as indicated on the Drawings) is referred to in the singular number, such reference shall apply to as many such articles as are indicated on the Drawings or required to complete the installation within the general intent of the Contract Documents.

B. Contractor shall be fully responsible for all materials and equipment which he has furnished, and shall furnish necessary replacements at any time prior to expiration of the Correction Period.

C. Off-site storage arrangements shall be acceptable to Owner for all materials and equipment not incorporated into the work but included in Applications for Payment. Such off-site storage arrangements shall be presented in writing, and shall afford adequate and satisfactory security and protection. Off-site storage facilities shall be accessible to Engineer.

D. Existing materials and equipment removed, and not reused or suitable for salvage, shall become Contractor's property.

E. Any items damaged in removal, storage or handling through carelessness or improper procedures shall be replaced by Contractor in kind or with new items.

F. Existing materials and equipment removed by Contractor shall not be reused in the Work except where so specified or indicated.

- G. All items mentioned in these Contract Documents shall be handled in conformance with this Section, Section 01620, instructions in the related Sections, and manufacturer's literature.
- H. The security of Owner furnished equipment shall become the responsibility of the Contractor upon taking delivery of the items at the office of the Owner.

1.03 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 copies to Engineer.
 - 1. Maintain one set of complete instructions at the job site during installation and until Project completion.
- B. Handle, install, connect, clean, condition and adjust products in strict accordance 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 such Work without clear instructions.
- C. Perform Work in accordance with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

1.04 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accordance with construction schedules, coordinate to avoid conflicts and delays with Work and conditions at the site.
- B. Deliver products in undamaged condition, in manufacturer's original containers or packaging with identifying labels intact and legible. Labels shall indicate manufacturer and product name, description, mixing and application instructions, limitations, cautions and warnings.
- C. Immediately upon delivery, inspect shipments to ensure proper material, color, type, quantities, and to assure compliance with the Contract Documents and approved submittals and that the products are undamaged.

- D. Provide equipment and personnel to handle products by methods to prevent soiling or damage to the product or packaging.

1.05 PROTECTION AFTER INSTALLATION

- A. Provide substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations. Remove coverings when no longer needed.

2.0 PRODUCTS

2.01 EVIDENCE OF COMPLIANCE

- A. All material and equipment used in the completion of this work shall be accompanied by certificates of compliance with the applicable requirements of the specifications. These certificates shall state date of manufacture, manufacturer, local representative, component sources and other pertinent specified facts of manufacture.

3.0 EXECUTION

Not Used

END OF SECTION

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SECTION 01620

STORAGE AND PROTECTION

1.0 GENERAL

1.01 RELATED REQUIREMENTS

None

1.02 DESCRIPTION

- A. All materials shall be suitably packaged (in manufacturer's original packaging with labels and seals intact) to facilitate handling and protect against damage during storage. Painted surfaces shall be protected against impact, abrasion, discoloration, and other damage. All painted surfaces which are damaged prior to acceptance of equipment shall be repainted to the satisfaction of the Engineer.
- B. Each item, package, or bundle of material shall be tagged or marked as identified in the delivery schedule or on the Shop Drawings. Complete packing lists and bills of material shall accompany each shipment.

2.0 PRODUCTS

Not Used

3.0 EXECUTION

3.01 STORAGE, GENERAL

- A. Store products, immediately on delivery, in accordance with manufacturer's instructions. Protect until installed.
- B. Arrange storage in a manner to provide access for maintenance of stored items and for inspection.
- C. Store and handle paints and products subject to spillage in areas where spills will not deface surfaces.
- D. Flammable or hazardous materials:
 - 1. Store minimum quantities in protected areas.
 - 2. Provide appropriate type fire extinguishers near storage areas.

3. Observe manufacturer's precautions and applicable ordinances and regulations.

3.02 EXTERIOR STORAGE

- A. Provide substantial platforms, blocking, or skids, to support fabricated products above ground; slope to provide drainage. Protect products from soiling and staining.
- B. For products subject to discoloration or deterioration from exposure to the elements, cover with impervious sheet material. Provide ventilation to avoid condensation.
- C. Store loose granular materials on clean, solid surfaces such as pavement, or on rigid sheet materials, to prevent mixing with foreign matter.
- D. Provide surface drainage to prevent erosion, pollution by mixing and ponding of water.
- E. Prevent mixing of refuse or chemically injurious materials or liquids.

3.04 MAINTENANCE OF STORAGE

- A. Periodically inspect stored products on a scheduled basis.
- B. Verify that storage facilities comply with manufacturer's product storage requirements.
- C. Verify that manufacturer's required environmental conditions are maintained continually.
- D. Verify that surfaces of products exposed to the elements are not adversely affected; that any weathering of finishes is acceptable under requirements of Contract Documents.

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

1.0 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Comply with requirements stated in the General and Supplementary Conditions of the Contract and in the Specifications for administrative procedures in closing out the Work.

1.02 RELATED WORK

- A. General and Supplementary Conditions of the Contract. Fiscal provisions, legal submittals and additional administrative requirements.

1.03 CLEANING

- A. Before final acceptance, the Contractor shall remove from the site and adjacent property all surplus materials, weeds, bushes, rubbish and temporary structures; shall satisfactorily restore all property which has been worn, rutted or damaged during the work; and shall leave the site in a presentable condition. Upon completion of work in connection with drainage structures, the Contractor shall remove all obstructions to the flow of water from inside all structures, channels, and culverts whether new or old. No direct payment will be made for this work.
- C. Remove all temporary labels.
- D. Clean site. Sweep paved areas.
- E. Remove all waste and surplus material from site.

1.04 SUBSTANTIAL COMPLETION

- A. When Contractor considers the Work is substantially complete, he shall submit to the Engineer (3 copies each):
 - 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. Engineer will promptly notify the Contractor in writing, giving the reasons therefor.
 - 2. Contractor shall remedy the deficiencies in the Work, and send a second written notice of substantial completion to the Engineer.
 - 3. Engineer will reinspect the Work.

- D. When the Engineer finds that the Work is substantially complete, he may:
 - 1. Prepare and deliver to the Owner a notification of Substantial Completion on an appropriate form with the Contractor's list of items to be completed or corrected as verified and amended by the Engineer before final payment.
 - 2. After consideration of any objections made by the Owner as provided in Conditions of the Contract, and when Engineer considers that the Work is substantially complete, he will countersign and deliver to the Owner and the contractor a definite notification of Substantial Completion with a revised list of items to be completed or corrected.

1.05 FINAL INSPECTION

- A. When Contractor considers the Work is complete, he shall submit written notification that (3 copies):
 - 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. Work is completed and ready for final inspection.
 - 5. All items noted from the Substantial Completion inspection have been completed or corrected.

- B. Engineer will make an inspection to verify the status of completion with reasonable promptness after receipt of such notification.

- 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 notification to Engineer stating that the Work is complete.
 - 3. Engineer will re-inspect 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, including Application for Final Payment.

1.06 REINSPECTION FEES

- A. Should Engineer perform reinspection 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.

1.07 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ENGINEER

- A. Project Record Documents.
- B. Warranties, Guarantees and Bonds. All warranty periods shall begin on the date of Final Acceptance.
- C. Spare parts and Maintenance Materials.
- D. Reports of all required tests and demonstrations.
- E. Evidence of Payment and Release of Liens: In accordance with requirements of General and Supplementary Conditions.

1.08 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. Quantity reconciliations.
 - c. Deductions for liquidated damages.
 - d. Deductions for reinspection payments.
 - e. Deductions for overtime inspection 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 were not previously made by Change Orders.

1.09 FINAL APPLICATION FOR PAYMENT

- A. Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the General and Supplementary Conditions of the Contract.

1.10 SUPPLEMENTAL LIQUIDATED DAMAGES

After the establishment of a date of Substantial Completion, the Contractor shall have 45 days to complete any outstanding items of Work remaining to be completed or corrected as listed on a final punch list made a part of the Substantial Completion Package. If upon expiration of said 45 days the outstanding items of Work have not been completed, liquidated damages in the amount agreed to in this contract will be reinstated for every day in which the outstanding items of Work have not been completed. Furthermore, the Owner shall not release monies withheld until all outstanding items of Work have been completed.

2.0 PRODUCTS

NOT USED

3.0 EXECUTION

NOT USED

END OF SECTION

SECTION 02050

SITE PREPARATION

1.0 GENERAL

1.01 WORK INCLUDED

- A. Comply with applicable requirements of DIVISION 1.
- B. Include all labor, materials, equipment, tools, transportation and services required to demolish and remove all designated items and work and to completely prepare the area of Work for subsequent Work. Remove materials from site and dispose of legally.
- C. Demolish and remove all designated sitework and work. Remove materials from site.
- D. Demolish all existing work which must be removed to facilitate the new construction.
- E. Remove designated slabs on grade, paving and curbs.
- F. Disconnect, cap and identify utilities.
- G. Remove surface debris.
- H. Contractor shall inspect the site, note all conditions and include all work necessary to complete the Work.
- I. All areas that have been disturbed by demolition and/or all other areas to receive construction and/or all other areas generally being part of this Contract shall be ready to receive new work and/or finish in a first class manner.

1.02 RELATED WORK

- A. Section 01010 - Summary of Work.
- B. Section 01510 - Temporary Utilities and Facilities.
- C. Section 01530 - Barriers and Enclosures.
- D. Section 01540 - Security.

1.03 EXISTING CONDITIONS

- A. Contractor shall note the existing work to remain, and employ demolition methods that will not cause damage to same.
- B. Conduct demolition to minimize interference with adjacent building areas. Maintain protected egress and access at all times to occupied portions of the site.
- C. Provide, erect, and maintain temporary barriers and security devices as required to protect Owner's equipment, property, personnel and general public from injury due to demolition work.
- D. Protect existing work which is to remain in place. Promptly repair damages caused to adjacent items by demolition work.
- E. The Owner assumes no responsibility for actual condition of items to be demolished.

1.04 METHODS

- A. Use such methods as required to complete Work within limitations of governing regulations. Comply with local laws, codes, regulations and ordinances. No explosives allowed.
- B. Conform to applicable codes for demolition of structures, safety of adjacent structures, dust control, runoff control and material disposal.
- C. Notify affected utility companies and appropriate airport departments before starting work and comply with their requirements.

1.05 QUALIFICATIONS

- A. Demolition Firm: Company specializing in performing the Work of this Section with minimum 5 years documented experience.

2.0 PRODUCTS

2.01 FILL MATERIALS

- A. Fill and Backfill as specified in Section 02200.

3.0 EXECUTION

3.01 PREPARATION

- A. Observe and institute all safety precautions. Provide, erect and maintain temporary partitions, barriers, and security devices as required to protect property, personnel and general public from injury and to control and prevent spread of dust, dirt, fumes, noise, and smoke. Take care not to unnecessarily disturb other buildings and items of construction.
- B. Protect existing items which are not indicated to be altered.
- C. Disconnect, remove, and cap designated utility services within demolition areas. Do not interrupt existing utilities serving occupied areas.
- D. Mark location of disconnected utilities. Identify and indicate capping locations on Project Record Documents.
- E. Do not close or obstruct fire hydrants or roadways.
- F. Prevent movement or settlement of adjacent structures.

3.02 EXECUTION

- A. Demolish indicated structures, appurtenances and other indicated construction in an orderly, systematic, and careful manner. Protect existing foundations, supporting structural members, and existing finishes. Use methods to minimize spread of dust and flying particles.
- B. The areas within lines 5 feet outside of new building and structure lines shall be cleaned of all debris, existing foundations, pavements, utility lines, structures, fences, and all other items that would interfere with construction operations. Stumps, logs, roots, and other organic matter shall be completely removed and the resulting depressions filled.
- C. Except where noted otherwise, immediately remove demolished materials from site. Transport and legally dispose of materials off site.
- D. Cease operations immediately if adjacent structures appear to be in danger. Notify Authorized Representative. Do not resume operations until directed.
- E. Sprinkle Work with water to minimize dust.

- F. Remove and promptly dispose of contaminated, vermin infested, or dangerous materials encountered in accordance with all applicable laws and regulations.
- G. Do not burn or bury materials on site. Use of explosives will not be permitted.
- H. Storage or sale of removed items on site will not be permitted.
- I. Remove demolished materials from site as work progresses. Upon completion of work, leave areas of work in clean condition. Transport and legally dispose of materials off site.
- J. Provide shoring, bracing, or support to prevent movement, settlement or collapse of structures.
- K. Backfill areas excavated, open pits and holes caused as a result of demolition as per Section 02200.
- L. Rough grade and compact areas affected by demolition to maintain site grades and contour and to prevent standing water.
- M. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling and protection against exposure or environmental pollution.
- N. Clean adjacent areas of dust, dirt and debris caused by demolition operations.
- O. Upon completion of demolition, leave work area and all affected adjacent areas in a clean condition.
- P. Promptly repair damages caused by demolition at no additional cost to the Owner.

END OF SECTION

SECTION 02200

GRADING AND EARTHWORK

1.0 GENERAL

1.01 WORK INCLUDED

- A. Include all labor, materials, services, supervision, equipment and transportation for excavation, borrow, trenching, bracing, filling, back filling, pipe bedding, compacting, rough grading and finish grading as necessary to complete Work specified herein.
- B. Trenching and back filling for underground utilities and underground utility structures. Compacted bed and compacted fill for utilities. Transportation and disposal of all excavated materials.
- C. Excavation and trenching for foundations and structures. Transportation and disposal of all excavated materials.
- D. Removal and disposal of all debris including excavated materials not suitable for re-use or excess quantities of excavated materials.
- E. Grade and rough contour site as shown on drawings and as required for proper drainage.
- F. Embankments of all excavations shall be protected with adequate linings, sheet pilings, shoring, waling and bracing as required for safe accomplishment of the Project. Remove all temporary structures when no longer needed.
- G. Pumping and dewatering as necessary and as required.

1.02 RELATED WORK

- A. Section 01400 - Quality Control
- B. Section 02050 - Site Preparation

1.03 UNDERGROUND INSTALLATIONS

- A. Existing underground installations are indicated on the drawings only to the extent such information was made available to or discovered by Engineer in preparing the drawings. There is no guarantee as to the accuracy or completeness of such information, and all responsibility for accuracy and completeness thereof is expressly disclaimed.
- B. Contractor shall be responsible for discovery of existing underground installations, in advance of excavating or trenching, by examining all visible topographic items and contacting all local utilities, and by prospecting. Contractor to notify Louisiana One Call (dial 811) to mark all utilities within rights-of way and provide proof of utility location to Engineer. Identify, stake and flag below grade utility locations.
- C. Before starting Work, coordinate Work and obtain clearance from appropriate airport departments, and utility companies and/or governmental agencies which supply existing or proposed services to Project.

1.04 SUBSURFACE OBSTRUCTIONS

- A. In excavation, grading and backfilling, care shall be taken not to remove, disturb or injure existing utility pipes, conduits or structures. If necessary, the Contractor at his own expense shall, within a reasonable time, repair any damage done thereto. Repairs to these facilities shall be made to the satisfaction of the Engineer.
- B. 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 at the option of said authority, either repair the damage at once, at his own expense, or pay the affected owner the proper charges for repairing said damage. 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.
- C. The Owner or Engineer will not be liable for any claims made by the Contractor based on underground obstructions being different than that indicated on the Plans. The Contractor shall uncover subsurface obstructions in advance of construction so that the method of avoiding same may be determined before the work reaches the obstruction.

1.05 PROTECTION

- A. Protect bench marks, existing structures, fences, roads, sidewalks, paving and curbs.
- B. Protection of persons and property:
 - 1. Barricade open depressions and holes which occur in the performance of this Work. Post warning lights on property adjacent to, or with public access to, the Work site.
 - 2. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
 - 3. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by operations under this Section.
 - 4. Comply with all Local, State and Federal Safety requirements.
- C. De-watering & Drainage:
 - 1. Remove all water, including rain water and ground water, encountered during grading and sub-structure work to an approved location by pumps, drains, and other approved methods.
 - 2. Continuously keep excavations and site construction area free from water. Provide water level low enough to provide a stable subgrade.
 - 3. Surface water shall be directed away from excavations and construction areas so as to prevent erosion and undermining. Excavations shall be performed so that the site and the area immediately surrounding the site shall be continually and effectively drained.
 - 4. Concrete shall not be placed in water.
- D. Dust Control:
 - 1. Control dust on and near Work, and on and near off-site areas, if such dust is caused by Contractor's operations during performance of Work or if dust results from condition in which Contractor leaves site.

2. Thoroughly moisten surfaces as necessary to prevent dust from being a nuisance to neighbors, general public, and personnel performing Work on site.
- E. Maintain access to adjacent areas at all times.
 - F. Protect above or below grade utilities which are to remain.
 - G. Protect bottoms of excavations and soil adjacent to and beneath foundations from frost.
 - H. Repair damage.
- 1.06 QUALITY ASSURANCE
- A. Perform Work of this Section in strict accordance with applicable requirements of governmental agencies which have jurisdiction and under direction of Engineer.
 - B. The Contractor shall retain the services of a professional who is experienced with excavation and bracing in soil and ground water conditions in the project area. The earthwork activities shall include measures to prevent general area subsidence as a result of lowering the water table. The Contractor shall observe and cause corrections as necessary to all construction activities and procedures so settlement or any harmful effects on existing structures or utilities will not occur. The Contractor shall assume all responsibility for the stability and adequacy of cofferdams and dewatering systems and all costs of damages resulting from failure thereof.
 - C. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of Work specified in this Section.
 - D. Use equipment adequate in size, capacity, and numbers to accomplish Work in a timely manner.
 - E. Comply with applicable requirements of Division 1.
 - F. The testing laboratory will be responsible for conducting and interpreting tests. Each report shall state whether or not the test specimens conform to all requirements of the Contract Documents and specifically note any deviations therefrom. Tests shall include optimum moisture, field density tests and proof rolling approval.

2.0 PRODUCTS

2.01 MATERIALS

- A. No classification of excavated materials will be made. Excavation work shall include the removal and subsequent handling of all materials excavated or otherwise removed in performance of the contract work, regardless of the type, character, composition or condition thereof.
- B. The Contractor shall provide all labor, materials and equipment for backfilling all excavations and trenches to the grades as indicated on the Plans.
- C. **Backfilling shall not begin until the work to be covered has been inspected and approved by the Authorized Representative.**
- D. The Authorized Representative reserves the right to order any excavation or trench backfilled at any time after installation of the work, if, in his opinion, the particular open excavation or trench constitutes a public nuisance.
- E. The Contractor shall be responsible for all settlement of backfill in excavation and trenches occasioned by the work covered herein. He shall refill and tamp excavations and trenches as often as necessary to bring them back to required or original grades.
- F. Water shall not be permitted to rise in backfilled excavation and trenches after the work have been placed.
- G. Should sliding occur in any part of the excavation or trench during construction due to storage of materials and equipment, the Contractor shall, upon written order of the Authorized Representative, either cut out and remove the slide from the embankment and then rebuild that portion of the embankment, or construct a stability berm of such dimension, and placed in such manner, as the Authorized Representative shall prescribe.
- H. Filter fabric shall be provided in rolls wrapped with covering for protection from mud dirt, dust, and debris.
 - 1. Filter Fabric Class A. Filter Fabric Class A shall be provided for installation at locations indicated on the Drawings and as specified herein. The fabric shall be inert to commonly encountered chemicals, shall be resistant to mildew, rot, ultraviolet light, insects, and rodents; and shall comply with Section 1019 of the LSSRB.

2. Filter Fabric Class B. Filter Fabric Class B shall be provided for installation at locations indicated on the drawings and specified herein. The fabric shall be inert to commonly encountered chemicals; shall be resistant to mildew, rot, ultraviolet light, insects, and rodents; and shall comply with Section 1019 of the LSSRB.
 3. Filter Fabric Class C. Filter Fabric Class C shall be provided for installation at locations located on the Drawings and specified herein. The fabric shall be inert to commonly encountered chemicals; shall be resistant to mildew, rot, ultraviolet light, insects, and rodents; and shall comply with Section 1019 of the LSSRB.
- I. Sand for fill and backfill and pipe bedding (at all water gravity and force mains except otherwise noted):
1. Pumped river sand shall meet the classification requirements of A.A.S.H.O. A-4, or better. The plasticity index (P.I.) shall not exceed four (4). Liquid Limit (L.L.) of the soil shall be a minimum of 25. It shall be predominantly granular non-expansive and cohesionless (ASTM D2487, classified as SW or SP only).
 2. The material shall be clean and free of organic matter, cinder, refuse, ash, friable or soluble materials and deleterious matter of every description and shall contain no clay lumps and no rocks, no stones, no loam, and no silt.
 3. The pumped sand shall be compacted to 95% maximum density in accordance with ASTM D 1557 specifications for full depth of fill/backfill in all areas to receive paving. See paragraph 3.04 of this Section for depth of lifts.
- J. Limestone:
1. Shall conform to the gradation requirements of Subsection 1003.04(a) of the latest edition of the Louisiana Standard Specification for Roads and Bridges. Material Classification No. 610.
- 3.0 EXECUTION
- 3.01 PREPARATION
- A. Examine areas and conditions under which Work of this Section is to be performed. Correct conditions which are detrimental to timely and proper completion of Work before proceeding.

- B. Site shall be cleared of all unnecessary materials and debris. Subgrades shall be cleaned and stripped of all surface vegetation, sod, and organic topsoil. All excavated material shall be transported, placed and spread on the site outside of the immediate work area, unless it meets all requirements to be used as fill or backfill.
- C. All areas to receive pavements and areas in which the buildings will be placed shall be cleared and grubbed. All tree stumps, debris and depressions shall be thoroughly cleaned out to firm, in-situ soils. Clearing and grubbing shall be of sufficient depth to strip all the vegetative material from the surface of the project site. All materials stripped shall be removed from the site. Subsequent to clearing and grubbing, all paved areas and the building areas shall be filled with a select fill.
- D. Identify known below grade utilities. Stake and flag locations.
- E. Identify and flag above grade utilities.
- F. Maintain and protect existing utilities remaining which pass through work area.
- G. Upon discovery of unknown utility or concealed conditions, discontinue affected work; notify Engineer.

3.02 FINISH ELEVATIONS AND LINES

- A. Secure services of a licensed land surveyor or other experienced person employed by a licensed land surveyor to set and establish finish elevations and lines.
- B. Carefully preserve all data and monuments. If displaced or lost, have them replaced immediately at no additional cost to Owner.

3.03 EXCAVATION

- A. Excavation work shall be performed in a safe and proper manner with appropriate precautions being taken against all hazards. Excavation shall provide adequate working space and clearances for the work to be performed therein. Excavate every type of material encountered within the limits of Work. Shoring, temporary sheet piles, waling, underpinning and braces shall be designed, furnished, installed and removed by the contractor as required to protect workers, banks, structures and utilities. Engineer is not responsible for design of any temporary work.

- B. Subgrade surfaces for concrete structures, paving and trench bottoms shall be firm, dense, thoroughly compacted and consolidated, free from muck and mud, stable, clean and free of loose material of any kind when concrete, paving base or bedding is placed thereon.
- C. Under no circumstances shall concrete be used as dry bottom material under footings or slabs. Use a minimum of 6" of compacted crushed lightweight limestone as dry bottoms. Subgrades and trench bottoms shall be firm, dense, and thoroughly compacted and consolidated and shall remain stable and firm under the feet of the workmen.
- D. Remove all unsatisfactory material that will not satisfactorily compact, organic materials, expanding materials, and other foreign matter. Replace with suitable material. All submerged roots, stumps or other perishable matter encountered shall be removed to a depth of not less than two (2) feet below sub grade elevation. Properly backfill stump holes.
- E. All exposed surfaces shall be proof-rolled to detect any soft spots which, if detected, shall be undercut to firm ground conditions and properly backfilled in thin, compacted lifts. Roller shall be 3 tons or heavier.
- F. Utility and drain trenches shall have the bottom graded to secure the required slope and shall be tamped to provide a firm pipe bed. Recesses shall be excavated to accommodate bells and joints. Hand trim excavations to leave free of loose matter. Construct pipe bedding as shown on drawings or as required in these specifications.
- G. Clean excavations of all trash, debris and forms prior to back filling.
- H. No blasting or other use of explosives will be permitted.
- I. Excavation shall not interfere with normal 45 degree bearing splay of any foundation.
- J. Excavation and trench bottom tolerances: 0.1 foot above or below required elevation.

3.04 FILLING AND BACKFILLING

- A. No fill or backfill shall be placed until subgrade is approved by the testing laboratory and the Engineer. Underground utilities shall be tested prior to backfilling.

- B. Do not place fill or backfill until all vegetation, debris, unsatisfactory soil materials, obstructions and deleterious materials are removed from the ground surface.
- C. Place backfill and fill materials (including sand pipe bedding and limestone pipe bedding) in layers less than 8" loose thickness. After placing, each layer shall be plowed, disked, or otherwise broken up, moistened or aerated as necessary, thoroughly mixed and compacted as specified. Do not place additional lifts until in place lift is properly compacted and tested with positive results.
- D. Do not place backfill or fill on surfaces which are muddy, frozen or contain frost or ice.
- E. Do not place backfill or fill in wet areas. Do not use frozen material for dry bottoms, bedding, fill or backfill.
- F. Support pipe and conduit during placement and compaction of bedding fill. Place compacted sand (or crushed lightweight limestone) bedding fill 6" beneath and up to mid point of storm sewer pipe, sanitary sewer pipe, gas and water pipes.
- G. All bedding and back filling and compacting work within 12" of the top of pipes and conduits shall be done by hand.

3.05 COMPACTING

- A. Each layer shall be dried or wetted to obtain optimum compaction and tamped and compacted to achieve the required percentage of maximum density. Eliminate voids and prevent excessive settlement before placing the succeeding layer.
 1. When existing ground surface has a density less than that specified under "3.06 Compaction Density" for a particular area, break up ground surface, pulverize, moisture-condition to optimum moisture content, and compact to required depth and percentage of maximum density.
 2. Maintain optimum moisture content of fill, backfill, and bedding materials to attain required compaction density.
 3. Where subgrade or layer of soil material must be moisture-conditioned before compacting, apply water uniformly to surface of subgrade or layer of soil material to prevent free water from appearing on surface during or after compacting operations.

4. Remove and replace, or scarify and air-dry, soil material that is too wet to permit compacting to specified density.
5. Soil material which has been removed because it is too wet to permit compacting may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing, or pulverizing, until moisture-density relation tests have been approved by the Authorized Representative.
6. Water shall not be permitted to accumulate in areas of backfill or paving.
7. Approved compacted subgrades that are disturbed by the Contractor's operations or adverse weather shall be scarified and compacted as specified herein to the required density prior to further construction thereon.

3.06 COMPACTION DENSITY

- A. Provide not less than the following percentage of maximum density of soil material compacted at optimum moisture content for actual density of each layer of soil material in place, and as approved by Engineer.
 1. Under structures, slabs on grade, utility trench bottoms, and under all paving: Compact the top 6" of subgrade and each layer of fill material or backfill material at 95% of maximum density for cohesionless soil material, as obtained in the Modified Proctor Compaction (ASTM D1557).
 2. At unpaved grass areas: Fill to 6" below finish grade compacted to 90% of maximum density for cohesionless soil material as per ASTM-D-1557.
 3. Test in place densities as per ASTM-D1556.

3.07 LENGTH OF OPEN TRENCH

- A. No greater length of trench in any location shall be left open in advance of the complete structure placed therein than shall be authorized or directed. The Authorized Representative shall be empowered, at any time to require the refilling of open trenches over completed pipe lines if, in his judgment, such action is necessary, and the Contractor shall thereby have no claim for extra compensation, even through to accomplish said refilling he is compelled temporarily to stop excavation of other work at any place.

- B. If work is stopped on any trench, for any reason except by order of the Engineer, and the excavation is left open for an unreasonable length of time in advance of construction, the Contractor shall, if so directed, refill such trench at his own cost, and shall not again open said trench until he is ready to complete the structure therein. If the Contractor shall refuse or fail to refill such trench completely within forty-eight (48) hours after said notice, the Authorized Representative shall be authorized to do the work, and the Owner shall charge the expense thereof to the work, and the owner shall charge the expense thereof to the Contractor and retain the same out of any monies due or to become due him under the Contract.

3.08 GRADING

A. General

1. Grade areas uniformly within limits of grading under this Section, including adjacent transition areas.
2. Smooth finished surfaces within specified tolerances.
3. Compact with uniform levels or slopes between points where elevations are shown on Drawings, or between such points and existing grades.
4. Where a change of slope is indicated on Drawings, construct a rolled transition section which has a minimum radius of approximately 8'-0", unless adjacent construction will not permit such a transition, or if such a transition defeats positive control of drainage.

B. Grading Tolerances:

1. Grade adjacent areas to achieve drainage away from structures and to prevent ponding.
2. Finish surfaces to be free from irregular surface changes.
3. Shape surface of areas scheduled to be under pavement to line, grade, and cross-section. Finished surface shall not be more than 0.05 foot above or 0.05-foot below required elevation.

3.09 FIELD QUALITY CONTROL

- A. Obtain Engineer's inspection and approval of subgrades and fill layers before permitting subsequent construction thereon.

- B. If, in Engineer's opinion, based on reports of Testing Laboratory, subgrade or fills which have been placed below specified density, additional compacting, moisture content adjustments, and testing shall be performed, as required, at no additional expense to Owner. Testing Laboratory Services by Owner. Contractor shall cooperate with testing lab personnel and provide access to all areas of work as required.

3.10 MAINTENANCE

- A. Protection of newly-graded areas:
 - 1. Protect newly-graded areas from traffic and erosion and keep free from trash, weeds and water.
 - 2. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.
- B. Reconditioning compacted areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, and compact to required density, prior to further construction.
- C. The Contractor shall be responsible for all settlement of backfill until acceptance of the Work. He shall refill and tamp excavations and trenches as often as necessary to bring them back to required or original grades.

END OF SECTION

SECTION 02202

TRENCHING AND BACKFILLING

1.0 GENERAL

1.01 TRENCHING AND BACKFILLING GENERAL

- A. This section covers clearing, grubbing, and preparation of the site; removal and disposal of all debris; excavation and trenching; tunneled (trenchless construction) crossings; the handling, storage, transportation, and disposal of all excavated material; all necessary sheeting, shoring, and protection work; preparation of subgrades; pumping and dewatering as necessary; protection of adjacent property; backfilling; pipe embedment; surfacing and grading; and other appurtenant work.
- B. With reference to the terms and conditions of the construction standards for excavations set forth in OSHA "Safety and Health Regulations for Construction", Chapter XVII of Title 29, CFR, Part 1926, Contractor shall employ a competent person and, when necessary based on the regulations, a registered professional engineer, to act upon all pertinent matters of the work of this section.

1.02 SUBMITTALS.

- A. Drawings, specifications, and data covering the proposed materials shall be submitted in accordance with the Submittals section.
- B. At least 30 days before starting construction on the sheeting and shoring, the sheeting and shoring design engineer shall complete and submit to Engineer the Protection System Design Certificate (Figure 2-02202) and the Contractor shall use the sheeting and shoring design. A separate certificate shall be submitted for each unique design. The certificate shall be signed and sealed by the registered professional engineer that designed the protection system. The professional engineer shall be licensed in the State of Louisiana.

1-3.01. Filter Fabric Data. Complete descriptive and engineering data for the fabric shall be submitted. Data submitted shall include:

- A 12 inch square sample of fabric.
- Manufacturer's descriptive product data.
- Installation instructions.

1-3.02 Embedment and Backfill Materials. Complete test results covering tests performed by an independent commercial testing laboratory retained by the Contractor for all materials described in the Materials Testing section shall be submitted.

1-4. BASIS FOR PAYMENT.

1-4.01. Trench Sheeting. No additional payment above the Contract Price will be made for trench sheeting left in place.

1-5. INSURANCE. Professional liability insurance shall be provided as specified in the Supplementary Conditions section.

1-6. GOVERNING STANDARDS. Where indicated, items within this section referencing the LSSRB shall be governed by the Louisiana Department of Transportation and Development (LDOTD) Standard Specifications for Road and Bridges (SSRB), 2006 Edition.

PART 2 - PRODUCTS

2-1. MATERIALS.

2-1.01. Filter Fabric. The fabric shall be provided in rolls wrapped with covering for protection from mud, dirt, dust, and debris.

2-1.01.01. Filter Fabric Class A. Filter fabric Class A shall be provided for installation at locations indicated on the Drawings and as specified herein. The fabric shall be inert to commonly encountered chemicals; shall be resistant to mildew, rot, ultraviolet light, insects, and rodents; and shall comply with with Section 1019 of the LSSRB.

2-1.01.02. Filter Fabric Class B. Filter fabric Class B shall be provided for installation at locations indicated on the Drawings and as specified herein. The fabric shall be inert to commonly encountered chemicals; shall be resistant to mildew, rot, ultraviolet light, insects, and rodents; and shall comply with with Section 1019 of the LSSRB.

2-1.01.03. Filter Fabric Class C. Filter fabric Class C shall be provided for installation at locations indicated on the Drawings and as specified herein. The fabric shall be inert to commonly encountered chemicals; shall be resistant to mildew, rot, ultraviolet light, insects, and rodents; and shall comply with with Section 1019 of the LSSRB.

2-1.02. Trench Backfill Materials. Materials will comply with the standard water main bedding detail shown on the drawings.

2-2. MATERIALS TESTING.

2-2.01. Preliminary Review of Materials. As stipulated in the Quality Control section, all tests required for preliminary review of materials shall be made by an acceptable independent testing laboratory at the expense of Contractor. Two initial gradation tests shall be made for each type of embedment, fill, backfill, or other material, and one additional gradation test shall be made for each additional 500 tons of each material delivered to the site.

2-2.02. Field Testing Expense. All moisture-density (Proctor) tests and relative density tests on the materials, and all in-place field density tests, shall be made by an independent testing laboratory at the expense of the Contractor. Contractor shall provide access to the materials and work area and shall assist the laboratory as needed in obtaining representative samples.

2-2.03. Required Tests. For planning purposes, the following guidelines shall be used for frequency of field tests. Additional tests shall be performed as necessary for job conditions and number of failed tests. Test results shall be submitted as specified in the Submittals section.

- a. Two moisture density (Proctor) tests in accordance with ASTM D698 (or, when required, ASTM D1557), or two relative density tests in accordance with ASTM D4253 and D4254 for each type of general fill, designated fill, backfill, or other material proposed.
- b. In-place field density and moisture tests (ASTM D2922 and ASTM D3017) at intervals of 500 feet maximum along the trench. Material will be tested in 2 foot lifts and will be 95% of Standard Proctor (ASTM D698).
- c. One in-place density and moisture test (ASTM D2922 and ASTM D3017) whenever there is a suspicion of a change in the quality of moisture control or effectiveness of compaction.
- d. Additional gradation, Proctor, and relative density tests whenever the source or quality of material changes.

PART 3 - EXECUTION

3-1. CLEARING. All clearing shall be performed as necessary for access, stringing of pipeline materials, and construction of the pipeline and appurtenant structures, see Section 02230.

3-2. EXCAVATION. Excavations shall provide adequate working space and clearances for the work to be performed therein and for installation and removal of concrete forms. In no case shall excavation faces be undercut for extended footings.

Subgrade surfaces shall be clean and free of loose material of any kind when concrete is placed thereon.

Except where exterior surfaces are specified to be damp-proofed, monolithic concrete manholes and other concrete structures or parts thereof, which do not have footings that extend beyond the outside face of exterior walls, may be placed directly against excavation faces without the use of outer forms, provided that such faces are stable and also provided that a layer of polyethylene film is placed between the earth and the concrete.

Excavations for manholes and similar structures constructed of masonry units shall have such horizontal dimensions that not less than 6 inches clearance is provided for outside plastering.

3-2.01. Classification of Excavated Materials. No classification of excavated materials will be made for payment purposes. Excavation and trenching work shall include the removal and subsequent handling of all materials excavated or otherwise removed in performance of the work, regardless of the type, character, composition, or condition thereof.

3-2.02. Preservation of Trees. No trees shall be removed outside excavated or filled areas, unless their removal is authorized by Owner. Trees left standing shall be adequately protected from permanent damage by construction operations.

3-2.03. Dewatering. Dewatering equipment shall be provided to remove and dispose of all surface water and groundwater entering excavations, trenches, or other parts of the work. Each excavation shall be kept dry during subgrade preparation and continually thereafter until the structure or tunnel to be built, or the pipe to be installed therein, is completed to the extent that no damage from hydrostatic pressure, flotation, or other cause will result.

All excavations for concrete structures or trenches which extend down to or below groundwater shall be dewatered by lowering and keeping the groundwater level to the minimum depth of 12 inches beneath such excavations. The specified dewatering depth shall be maintained below the prevailing bottom of excavation at all times.

Surface water shall be diverted or otherwise prevented from entering excavations or trenches to the greatest extent possible without causing damage to adjacent property.

Contractor shall be responsible for the condition of any pipe or conduit which he may use for drainage purposes, and all such pipe or conduit shall be left clean and free of sediment.

Contractor shall obtain from the appropriate agencies and authorities, the dewatering and stormwater discharge permits required to remove and dispose of groundwater, surface water, and any other water used in Contractor's operations. The permits shall be obtained prior to start of construction.

3-2.05. Sheeting and Shoring. Except where banks are cut back on a stable slope, excavations for structures and trenches shall be supported with sheeting and shoring as necessary to prevent caving or sliding.

Sheet piling or other excavation support systems shall be installed as necessary to limit the extent of excavations for deeper structures and to protect adjacent structures and facilities from damage due to excavation and subsequent construction. Contractor shall assume complete responsibility for, and shall install adequate protection systems for prevention of damage to existing facilities.

Sheeting, shoring and excavation support systems shall be designed by a professional engineer registered in the State of Louisiana.

Trench sheeting may be removed if the pipe strength is sufficient to carry trench loads based on trench width to the back of sheeting. Trench sheeting shall be removed unless otherwise permitted by Engineer. Trench sheeting will not be removed, if in the opinion of Engineer, removal of the sheeting will cause damage to the facility it is protecting. If left in place, the sheeting shall cut off 12 inches below finished grade. The design of the support system shall be such as to permit complete removal while maintaining safety and stability at all times.

A movable trench support may be used, provided care is exercised in placing and moving the trench box or support bracing to prevent movement of the pipe or disturbance of the pipe bedding and backfill. Any voids left in the trench wall or embedment material by support removal shall be carefully filled with granular embedment material compacted as specified herein.

3-2.06. Stabilization. Sub-grades for trench bottoms shall be firm, dense, and thoroughly compacted and consolidated; shall be free from mud and muck; and shall be sufficiently stable to remain firm and intact under the feet of the workers.

Where ground water or unstable trench bottom exists, trench bottom shall be stabilized (ASTM D2321) to provide a working platform.

3-3. TRENCH EXCAVATION. No more trench shall be opened in advance of pipe laying than is necessary to expedite the work.

Prior to excavation, Contractor shall contact local underground alert hotlines, and/or individual utility owners for marking underground utilities. Once utilities are marked, Contractor shall hand dig or pothole to expose the existing utilities. A survey shall be made of the utility size, material, location, and elevation prior to trench excavation and information shall be recorded on the record Drawings maintained by the Contractor.

3-3.01. Alignment, Grade, and Minimum Cover. The alignment and grade or elevation of each pipeline shall be fixed and determined from offset stakes. Vertical and horizontal alignment of pipes, and the maximum joint deflection used in connection therewith, shall be in conformity with requirements of the section covering installation of pipe.

Pipe grades and cover will be as shown on the drawings. Measurement of pipe cover depth shall be made vertically from the outside top of pipe to finished ground or pavement surface elevation, except where future surface elevations are indicated on the Drawings.

3-3.02. Mechanical Excavation. The use of mechanical equipment will not be permitted in locations where its operation would cause damage to trees, buildings, culverts, or other existing property, utilities, or structures above or below ground. In all such locations, hand excavating methods shall be used.

Mechanical equipment used for trench excavation shall be of a type, design, and construction, and shall be so operated, that the rough trench excavation bottom elevation can be controlled, and that trench alignment is such that pipe, when accurately laid to specified alignment, will be centered in the trench with adequate sidewall clearance. Undercutting the trench sidewall to obtain sidewall clearance will not be permitted.

In locations where maximum trench widths are required for designated rigid conduits, mechanical equipment shall be operated so that uniform trench widths and vertical sidewalls are obtained at least from an elevation 12 inches above the top of the installed pipe to the bottom of the trench.

3-3.03. Cutting Concrete Surface Construction. Cuts in concrete pavement and concrete base pavements shall be no larger than necessary to provide adequate working space for proper installation of pipe and appurtenances. Cutting shall be started with a concrete saw in a manner which will provide a clean groove at least 1-1/2 inches deep along each side of the trench and along the perimeter of cuts for structures.

Concrete pavement and concrete base pavement over trenches excavated for pipelines shall be removed so that a shoulder not less than 6 inches in width at any point is left between the cut edge of the pavement and the top edge of the trench. Trench width at the bottom shall not be greater than at the top and no undercutting will be permitted. Pavement cuts shall be made to and between straight or accurately marked curved lines which, unless otherwise required, shall be parallel to the center line of the trench.

Pavement removal for connections to existing lines or structures shall not exceed the extent necessary for the installation.

Where the trench parallels the length of concrete walks, and the trench location is all or partially under the walk, the entire walk shall be removed and replaced. Where the trench crosses drives, walks, curbs, or other surface construction, the surface construction shall be removed and subsequently replaced between existing joints or between saw cuts as specified for pavement.

3-3.04. Excavation Below Pipe Sub-grade. Except where otherwise required, pipe trenches shall be excavated below the underside of the pipe, as indicated on drawings.

Bell holes shall provide adequate clearance for tools and methods used for installing pipe. No part of any bell or coupling shall be in contact with the trench bottom, trench walls, or granular embedment when the pipe is jointed.

3-3.05. Artificial Foundations in Trenches. Whenever unsuitable or unstable soil conditions are encountered, Contractor shall notify Engineer immediately. When authorized by the Engineer, trenches shall be excavated below grade and the trench bottom shall be brought to grade with suitable material. In such cases, adjustments will be made in the Contract Price in accordance with the provisions of the General Conditions.

3-3.06. Over-Excavation. Over-excavation carried below the grade, unless authorized by the Engineer, shall be backfilled to the required grade with material acceptable to the Engineer and compacted to the satisfaction of the Engineer, at no additional cost to the Owner.

3-4. TRENCH BACKFILL. All trench backfill above pipe embedment shall conform to the following requirements.

A layer of backfill material not more than 8 inches deep may be placed over concrete arch encasement or concrete thrust blocking after the concrete has reached its initial set, to aid curing. No additional backfill shall be placed over arch encasement or blocking until the concrete has been in place for at least 3 days.

3-5.01. Compacted Backfill. Compacted backfill will be required for the full depth of the trench above the embedment in the following locations:

Where beneath pavements, surfacings, driveways, curbs, gutters, walks, or other surface construction or structures.

Where in street, road, or highway shoulders.

In established lawn areas.

The top portion of backfill beneath established lawn areas shall be finished with at least 6 inches of topsoil corresponding to, or better than that which is underlying adjoining lawn areas.

3-5.01.01. River Sand. River sand will be used as backfill within street rights-of-way. Sand fill will be placed in no more than 2 foot lifts (layers). Mechanical vibratory compaction shall be performed after the placement of each lift. All sand backfill will meet a minimum Standard Proctor (ASTM D698) density of 95%.

3-5.01.02 Ordinary Backfill. Compaction of trench backfill above pipe embedment in locations other than those specified will not be required except to the extent necessary to

prevent future settlement. Contractor shall be responsible for backfill settlement as specified.

Ordinary earth backfill material to be placed above embedments shall be free of brush, roots more than 2 inches in diameter, debris, cinders, and any corrosive material, but may contain rubble and detritus from rock excavation, stones, and boulders in certain portions of the trench depth.

Backfill material above embedments shall be placed by methods which will not impose excessive concentrated or unbalanced loads, shock, or impact on installed pipe, and which will not result in displacement of the pipe.

Compact masses of stiff clay or other consolidated material more than 1 cubic foot in volume shall not be permitted to fall more than 5 feet into the trench, unless cushioned by at least 2 feet of loose backfill above pipe embedment.

No trench backfill material containing rocks or rock excavation detritus shall be placed in the upper 18 inches of the trench, nor shall any stone larger than 8 inches in its greatest dimension be placed within 3 feet of the top of pipe. Large stones may be placed in the remainder of the trench backfill only if well separated and so arranged that no interference with backfill settlement will result.

3-5.03. Water-Settled Earth Backfill. Settlement or consolidation of trench backfill using water jetting or ponding shall not be performed.

3-6. DRAINAGE MAINTENANCE. Trenches across roadways, driveways, walks, or other trafficways adjacent to drainage ditches or watercourses shall not be backfilled prior to completion of backfilling the trench on the upstream side of the trafficway, to prevent impounding water after the pipe has been laid. Bridges and other temporary structures required to maintain traffic across such unfilled trenches shall be constructed and maintained by Contractor. Backfilling shall be done so that water will not accumulate in unfilled or partially filled trenches. All material deposited in roadway ditches or other watercourses crossed by the line of trench shall be removed immediately after backfilling is completed, and the original section, grades, and contours of ditches or watercourses shall be restored. Surface drainage shall not be obstructed longer than necessary.

3-7. FINAL GRADING AND PLACEMENT OF TOPSOIL. After other outside work has been finished, and backfilling and embankments completed and settled, all areas which are to be graded shall be brought to grade at the indicated elevations, slopes, and contours. All cuts, fills, embankments, and other areas which have been disturbed or damaged by construction operations shall be surfaced with topsoil to a depth of at least 4 inches. Topsoil shall be of a quality at least equal to the existing topsoil in adjacent areas, free from trash, stones, and debris, and well suited to support plant growth. Topsoil required to provide the minimum thickness shall be imported and placed at no additional cost to the Owner.

Use of graders or other power equipment will be permitted for final grading and dressing of slopes, provided the result is uniform and equivalent to manual methods. All surfaces shall be graded to secure effective drainage. Unless otherwise indicated, a slope of at least 1 percent shall be provided.

Final grades and surfaces shall be smooth, even, and free from clods and stones, weeds, brush, and other debris.

3-8. DISPOSAL OF EXCESS EXCAVATED MATERIALS. All excess excavated materials shall be disposed of off site at the expense of the Contractor.

3-9. SETTLEMENT. Contractor shall be responsible for all settlement of trench backfill which may occur within the correction period stipulated in the General Conditions.

Contractor shall make, or cause to be made, all repairs or replacements made necessary by settlement within 30 days after notice from Engineer or Owner.

End of Section

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SECTION 02230

SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

1. Protecting existing vegetation to remain.
2. Clearing and grubbing.
3. Temporary erosion- and sedimentation-control measures.

- B. Related Sections:

1. Division 1 Section "Temporary Facilities and Controls" for temporary utility services, construction and support facilities, security and protection facilities.

1.3 DEFINITIONS

- A. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow.
- D. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.

- E. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction, and indicated on Drawings.
- F. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by a circle concentric with each tree with a radius 1.5 times the diameter of the drip line unless otherwise indicated.
- G. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.4 MATERIAL OWNERSHIP

- A. Except for stripped topsoil and other materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 INFORMATIONAL SUBMITTALS

- A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
 - 1. Use sufficiently detailed photographs or videotape.
 - 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.
- B. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
- B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.
 - 1. Do not proceed with work on adjoining property until directed by Architect.

- C. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises as directed
- D. Utility Locator Service: Notify Louisiana One Call (dial 811) before site clearing.
- E. Do not commence site clearing operations until temporary erosion- and sedimentation-control measures are in place.
- F. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Erection of sheds or structures.
 - 4. Impoundment of water.
 - 5. Excavation or other digging unless otherwise indicated.
 - 6. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- G. Do not direct vehicle or equipment exhaust towards protection zones.
- H. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.
- I. Soil Stripping, Handling, and Stockpiling: Perform only when the topsoil is dry or slightly moist.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly identify trees, shrubs, and other vegetation to remain. Flag each tree trunk at 54 inches above the ground.
- C. Protect existing site improvements to remain from damage during construction.

1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
- B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- D. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

- A. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Engineer.

3.4 EXISTING UTILITIES

- A. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 1. Notify Engineer not less than seven days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Architect's written permission.

3.5 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

3.6 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

END OF SECTION

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SECTION 02250

DEWATERING

1.0 GENERAL

1.01 SUMMARY

- A. Section includes construction dewatering.

1.02 PERFORMANCE REQUIREMENTS

- A. Dewatering Performance: Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground water and permit excavation and construction to proceed on dry, stable subgrades.

1.03 ACTION SUBMITTALS

- A. Shop Drawings: For dewatering system. Show arrangement, locations, and details of wells and well points; locations of risers, headers, filters, pumps, power units, discharge lines, piezometers, and flow-measuring devices; and means of discharge, control of sediment, and disposal of water.
- B. Delegated-Design Submittal: For dewatering system indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.04 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning dewatering. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.05 PROJECT CONDITIONS

- A. Survey Work: Engage a qualified land surveyor or professional engineer to survey adjacent existing buildings, structures, and site improvements,

establishing exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.

1. During dewatering, regularly resurvey benchmarks, maintaining an accurate log of surveyed elevations for comparison with original elevations. Promptly notify Architect if changes in elevations occur or if cracks, sags, or other damage is evident in adjacent construction.

2.0 PRODUCTS (Not Used)

3.0 EXECUTION

3.01 INSTALLATION

- A. Provide temporary grading to facilitate dewatering and control of surface water.
- B. Monitor dewatering systems continuously.
- C. Protect and maintain temporary erosion and sedimentation controls during dewatering operations.
- D. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.
 1. Space well points or wells at intervals required to provide sufficient dewatering.
 2. Use filters or other means to prevent pumping of fine sands or silts from the subsurface.
- E. Before excavating below ground-water level, place system into operation to lower water to specified levels. Operate system continuously until drains, sewers, and structures have been constructed and fill materials have been placed or until dewatering is no longer required.
- F. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Install sufficient dewatering equipment to drain water-bearing strata above and below bottom of foundations, drains, sewers, and other excavations.

1. Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.
- G. Reduce hydrostatic head in water-bearing strata below subgrade elevations of foundations, drains, sewers, and other excavations.
1. Maintain piezometric water level a minimum of 24 inches below surface of excavation.
- H. Provide standby equipment on site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, restore damaged structures and foundation soils at no additional expense to Owner.
1. Remove dewatering system from Project site on completion of dewatering. Plug or fill well holes with sand or cut off and cap wells a minimum of 36 inches below overlying construction.

END OF SECTION

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SECTION 02510

RAW WATER PIPING

1.0 GENERAL

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. This Section includes materials for raw water piping and fittings.

1.1 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Detail precast concrete vault assemblies and indicate dimensions, method of field assembly, and components.
- C. Coordination Drawings: For piping and specialties including relation to other services in same area, drawn to scale. Show piping and specialty sizes and valves, meter and specialty locations, and elevations.
- D. Field quality-control test reports.

1.2 QUALITY ASSURANCE

- A. Piping materials shall bear label, stamp, or other markings of specified testing agency.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Preparation for Transport: Prepare valves, including fire hydrants, according to the following:
 - 1. Ensure that valves are dry and internally protected against rust and corrosion.
 - 2. Protect valves against damage to threaded ends and flange faces.
 - 3. Set valves in best position for handling. Set valves closed to prevent rattling.
- B. During Storage: Use precautions for valves, including fire hydrants, according to the following:
 - 1. Do not remove end protectors unless necessary for inspection; then reinstall for storage.

2. Protect from weather. Store indoors and maintain temperature higher than ambient dew-point temperature. Support off the ground or pavement in watertight enclosures when outdoor storage is necessary.
- C. Handling: Use sling to handle valves if size requires handling by crane or lift. Rig valves to avoid damage to exposed parts. Do not use hand wheels or stems as lifting or rigging points.
 - D. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.
 - E. Protect stored piping from moisture and dirt. Elevate above grade. Do not exceed structural capacity of floor when storing inside.
 - F. Protect flanges, fittings, and specialties from moisture and dirt.

1.4 PROJECT CONDITIONS

- A. Interruption of Existing Water-Distribution Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water-distribution service according to requirements indicated:
 1. Notify Owner fewer than three (3) days in advance of proposed interruption of service.
 2. Do not proceed with interruption of water-distribution service without Owner's written permission.

1.5 COORDINATION

- A. Coordinate connection to water main with utility company.

2.0 PRODUCTS

2.1 DUCTILE-IRON PIPE AND FITTINGS

- A. Mechanical-Joint, Ductile-Iron Pipe: AWWA C151, with mechanical-joint bell and plain spigot end unless grooved or flanged ends are indicated.
 1. Mechanical-Joint, Ductile-Iron Fittings: AWWA C110, ductile- or gray-iron standard pattern or AWWA C153, ductile-iron compact pattern.

2. Glands, Gaskets, and Bolts: AWWA C111, ductile- or gray-iron glands, rubber gaskets, and 304 stainless steel bolts.
- B. Push-on-Joint, Ductile-Iron Pipe: AWWA C151, with push-on-joint bell and plain spigot end unless grooved or flanged ends are indicated.
1. Push-on-Joint, Ductile-Iron Fittings: AWWA C110, ductile- or gray-iron standard pattern or AWWA C153, ductile-iron compact pattern.
 2. Gaskets: AWWA C111, rubber.
- C. Flanges: ASME 16.1, Class 125, cast iron.
- 2.2 HDPE PIPE AND FITTINGS

- A. HDPE Pipe and Fittings; AWWA C906, DR 11: with PE 3608 compound required to give pressure rating of not less than 160 psig.
1. Mechanical-Joint, Ductile-Iron Fittings: AWWA C110, ductile- or gray-iron standard pattern or AWWA C153, ductile-iron compact pattern.
 2. Glands, Gaskets, and Bolts: AWWA C111, ductile- or gray-iron glands, rubber gaskets, and steel bolts.

3.0 EXECUTION

3.1 EARTHWORK

- A. Refer to Division 2 Section "Earthwork" for excavating, trenching, and backfilling.

3.2 PIPING APPLICATIONS

- A. General: Use pipe, fittings, and joining methods for piping systems according to the following applications.
- B. Transition couplings and special fittings with pressure ratings at least equal to piping pressure rating may be used, unless otherwise indicated.
- C. Do not use flanges or unions for underground piping.
- D. Flanges, unions, grooved-end-pipe couplings, and special fittings may be used, instead of joints indicated, on aboveground piping and piping in vaults.

3.3 PIPING INSTALLATION

- A. Bury piping with depth of cover over top as shown on drawings.
- B. Install underground piping with restrained joints at horizontal and vertical changes in direction. Use restrained-joint piping, thrust blocks, anchors, tie-rods and clamps, and other supports.
- C. HDPE
 - 1. Joints between plain end pipes shall be made by butt fusion. The butt fusion procedure used shall be as recommended by the pipe manufacturer. The Contractor shall ensure that persons making heat fusion joints have received training in the manufacturer's recommended procedure. The Contractor shall maintain records of trained personnel and shall certify that training was received not more than 12 months prior to commencing construction. External and internal beads shall not be removed.
 - 2. Transition from HDPE to ductile iron piping shall be with mechanical couplings designed for joining polyethylene pipe to ductile iron pipe. An interior stainless steel sleeve shall be installed into the HDPE pipe prior to attachment to ductile iron coupling.

End of Section

SECTION 02760

DIRECTIONAL DRILL PIPELINE INSTALLATION

PART 1 – GENERAL

1.1 SUMMARY OF WORK

- A. The work covered by this section of the Specifications consists of plant, labor, equipment, and materials, and of performing all operations in connection with the installation of high-density polyethylene pipe by the use of the horizontal directional drilling method complete. The work shall be done in strict accordance with this and other applicable sections of the Specifications, all applicable drawings, and subject to the terms and conditions of the contract.

1.2 SUBMITTALS

- A. The Contractors shall develop a proposed profile drawing and drilling procedure for the installation by directional drilling. The Contractor's proposed profile drawing shall be subject to review and written approval by Owner. The profile drawing and drilling procedure shall be submitted to the Engineer at least fourteen (14) days prior to start the construction. It will be the Contractor's responsibility to determine the entry pilot hole and exit location within the permitted locations shown on the drawings approved by the Engineer.
- B. Shop drawings, catalog data and manufacturer's technical data showing complete information on material composition, physical properties and dimensions of pipe fittings shall be submitted. Include manufacturer's recommendation for handling, storage and repair of pipe fittings if damaged.
- C. Contractor shall submit calculations showing design of pipe wall strength based on amount of pull back required for the pipe installation. The pull back force shall not exceed 50% of the pipe tensile strength. The radius of bending shall not exceed 100 times the pipe I.D. The pipe shall be designed for a minimum of 1.25 times the specified pressure.

1.3 PROJECT COORDINATION

- A. Contractor will comply with all stipulation of the all permits issued for this project.

1.4 STAGING

- A. The bore hole for the directional drilling operations will originate on the east bank of the Mississippi River and terminated under the water's edge on the east bank. No drilling activity will be allowed that will impact the levee.
- B. The lay down area for making up the 16" HDPE piping for placement into the bore hole will be on the river bank. HDPE pipe sections will be fused into a continuous pipe of the length required for placement into the bore hole. The entire length of 16" HDPE piping will be fused on the river bank and transferred to barges for installation or in a manner proposed by the Contractor and acceptable to the Engineer.

PART 2 - PRODUCTS

2.1 PIPE

- A. Pipe shall be as indicated on the drawings and Section 02510 – Raw Water Piping.

PART 3 - EXECUTION

3.1 LAUNCHING AND RECEIVING

- A. The actual number and location of the pits shall be as shown on the permit issued for this work. Design of Launching and Receiving pits shall be by Contractor.

3.2 UTILITIES

- A. Before any excavation is done for any purpose, it will be the responsibility of the Contractor to check with the various utility companies and determine the location of their facilities. Any necessary temporary construction easements and/or right-of-way areas will be arranged by the Contractor at no cost to the Owner.

3.3 DIRECTIONAL DRILL REQUIREMENTS

- A. The pilot hole shall be drilled along the path shown on the plan drawing. The pilot hole tolerances are as follows:
 - 1. Elevation: +0 feet, -1 feet
 - 2. Alignment: + or - 1 feet

3. Entry Point Location: The pilot hole shall initially penetrate the ground surface area at the exact location shown on the drawings or approved by the Engineer.
 4. Exit Point Location: The pilot hole shall finally penetrate the ground surface within + or – 1 feet of the alignment shown on the drawing and with +5 feet and –0 feet of the length shown on the drawings.
- B. The Contractor shall at all times provide and maintain instrumentation which will accurately locate the pilot hole (both horizontal and vertical displacement points), measure drill string axial and torsional loads, and measure drilling fluid discharge rate and pressure. The Engineer will have access to these instruments and their readings at all times during the drilling and pull back operations. A final “as built” plan and profile shall be submitted to the Engineer within five (5) days after completing the pull back. The Contractor shall also furnish a copy of the drilling at this time.
- C. Pre-reaming operations shall be conducted at the discretion of the Contractor. All provisions of these specifications relating to simultaneous reaming and pulling back operations shall also pertain to pre-reaming operations.
- D. The maximum allowable tensile load imposed on the pull section shall not exceed 50% of the product of the specified minimum yield strength of the pipe and the area of the pipe section.
- E. A swivel shall be used to connect the pull section to the assembly to minimize torsional stress imposed on the section.
- F. The pull back section of the pipeline shall be supported as it proceeds during pull back so that it moves freely and the pipe is not damaged.
- G. The pull back section shall be installed in the reamed hole in such a manner that external pressures are minimized. Any damage to the pipe resulting from external pressure during installation shall be the responsibility of the Contractor.
- H. Buoyancy modification shall be used at the discretion of the Contractor. Any buoyancy modification procedure proposed for use shall be submitted to the Engineer for approval. No procedure shall be used that has not been approved by the Engineer. The Contractor is responsible for any damage to the pull section resulting from buoyancy modification.

3.4 DRILLING FLUIDS

- A. All drilling fluids, mud or other chemicals used by Contractor must be submitted to Engineer for approval. No fluid will be approved or utilized that does not comply with permit requirements and environmental regulations.

3.5 TESTING

- A. Pipe shall be tested both before and after installation in accordance with applicable sections of the Specifications.

END OF SECTION

SECTION 02936

SEEDING

1.0 GENERAL

1.01 WORK INCLUDED

- A. Fertilizing.
- B. Seeding.
- C. Mulching.
- D. Maintenance.

1.02 RELATED WORK

- A. DIVISION 2 - SITEWORK

1.03 DEFINITIONS

- A. Weeds: Includes Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

1.04 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.

1.05 QUALITY ASSURANCE

- A. Provide seed mixture in containers showing percentage of seed mix, year of production, net weight, date of packaging, and location of packaging.

1.06 MAINTENANCE DATA

- A. Submit maintenance data for continuing Owner maintenance under provisions of Section 01700.

- B. Include maintenance instructions, cutting method and maximum grass height, types, application frequency, and recommended coverage of fertilizer and herbicide for controlling weeds.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver products to site under provisions of Section 01600.
- B. Store and protect products under provisions of Section 01620.
- C. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable.
- D. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.08 MAINTENANCE SERVICE

- A. Maintain and water seeded areas immediately after placement until grass is well established and exhibits and vigorous growing condition. Provide a minimum of three cuttings. Provide maintenance for six months after the Date of Substantial Completion or longer until grass is accepted.

2.0 PRODUCTS

2.01 SEED MIXTURE

- A. Seed Mixture:
 1. Grass Seed (between March & September): Shall be Bermuda grass (Cynodon dactylon) (Hulled) minimum 82% by weight of pure live seed, maximum 1% by weight weed seed. Seed shall be labeled in accordance with the latest U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act.
 2. Grass Seed (between September & March): Shall be half (50%) maximum Fescue Hybrid (acceptable hybrids are 'Jaguar' 'Rebel' or 'Adventure') .05% by weight weed seed, and 50% Bermuda Grass (Cynodon dactylon) (Non-Hulled) minimum 82% by weight of pure live seed, maximum 1% by weight weed seed. Seeds shall be labeled in accordance with the latest U.S. Department of Agriculture Rules and Regulation under the Federal Seed Act.

2.02 ACCESSORIES

- A. Fertilizer: Agriform CRF 16-7-12 (+ Iron), Sierra Chemical Company or approved equal.
- B. Water: Clean, fresh and free of substances or matter which could inhibit vigorous growth of grass.
- C. Herbicide: MSMA and Sencor or approved equal.

3.0 EXECUTION

3.01 INSPECTION

- A. Verify that prepared soil base is ready to receive the work of this Section.
- B. Beginning of installation means acceptance of existing site conditions.

3.02 PREPARATION OF SUBSOIL

- A. Prepare subsoil to eliminate uneven areas and low spots. Maintain lines, levels, profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
- B. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated subsoil.

3.03 FERTILIZING

- A. Apply fertilizer in accordance with manufacturer's instructions at a rate of 20 lbs per 1000 square feet.
- B. Apply after smooth raking of topsoil and prior to roller compaction.
- C. Do not apply fertilizer at same time or with same machine as will be used to apply seed.
- D. Lightly water to aid the dissipation of fertilizer.

3.04 SEEDING

- A. Apply seed at the rate of 3-4 pounds per 1000 sf for each specified seed type evenly in two intersecting directions. Rake in lightly to achieve 1/8" cover. Do not seed area in excess of that which can be mulched on same day. Pine straw mulch is required. Apply same day finish grading is complete.

B. Do not sow immediately following rain, when ground is too dry, or during windy periods.

C. Apply water with a fine spray immediately after each area has been seeded. Saturate to 4 inches of soil. Water seeded area until germination.

3.05 SEED PROTECTION

A. Protect seeded areas from foot and vehicular traffic by placing string around area periphery. Maintain until grass is established.

END OF SECTION

SECTION 09900

PAINTING

1.0 GENERAL

1.01 DESCRIPTION

- A. Comply with all applicable requirements of DIVISION 1.
- B. The Work includes all labor, materials, services, supervision, transportation, tools, and equipment necessary to complete the work specified herein, including surface preparation, touch up of shop coats, painting and finishing of interior and exterior exposed items and surfaces throughout Project, except as otherwise indicated. Also included is field painting of exposed bare and covered pipes and ducts, hangers, exposed steel and iron work, conduits, and primed metal surfaces of equipment installed under Mechanical and Electrical Work, except as otherwise indicated.
- C. Paint exposed surfaces whether or not colors are designated in schedules except where material is specifically noted as a surface not to be painted. Where items or surfaces are not specifically mentioned, paint same as adjacent similar materials or areas. If color or finish is not designated, the Engineer will select these from standard colors available for materials systems specified.
- D. The terms "paint" or "painting" as used in this section means all coating systems materials including primers, sealers, fillers, stains, oil, alkyd, latex, vinyl, polyurethane, epoxy, emulsions, and enamel-type paints and the application of these materials.
- E. All items not to be painted shall be fully protected from paint, overspray, solvents or any damage due to painting work.
- F. Conform to all applicable codes for installation of the work of this Section.

1.02 RELATED WORK

- A. DIVISION 2 - PIPING
- C. DIVISION 15 - MECHANICAL
- D. DIVISION 16 - ELECTRICAL

1.03 WORK NOT INCLUDED

- A. Unless otherwise indicated, painting is not required on surfaces such as walls or ceilings in concealed areas and generally inaccessible areas such as furred spaces, utility tunnels, pipe spaces and duct shafts. Exception: Pipes and hangers, structural steel, and non-galvanized miscellaneous metal work shall be painted for corrosion protection.
- B. Unless otherwise indicated, do not paint any machined surfaces of moving parts of operating units such as valve and damper operators, linkages, sensing devices, and motor and fan shafts.
- C. Do not paint over any code required labels or equipment identification, performance rating, name or nomenclature plates. Do not paint sprinkler heads.
- D. Do not paint factory pre-finished materials unless otherwise indicated.
- E. Unless otherwise indicated, metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze and similar finished materials will not require finish painting.

1.04 QUALITY ASSURANCE

- A. Product manufacturer shall specialize in manufacturing quality commercial paint and finish products with minimum twenty (20) years documented experience. All paint material, if possible, to the greatest extent possible, shall be manufactured by one company.
- B. Installer shall be a company specializing in performing work in this section with minimum ten (10) years documented commercial painting experience.
- C. Use adequate number of highly skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work of this Section.
- D. Adequate, competent constant supervision shall be provided to assure that the work is done in accordance with highest standard practice and workmanship and in conformance with the contract documents.
- E. Use equipment and tools adequate in size, design, and numbers, in good repair to accomplish work in a timely manner.

- F. Paints and coatings shall not settle excessively, cake or thicken in the container. Any such material shall be removed from the site and not used.
 - G. All work in this section shall meet applicable requirements and recommendations of Painting and Decorating Contractors of America (PDCA).
 - H. All work related to steel shall meet applicable requirements and recommendations of Steel Structures Painting Council (SSPC), including Painting Application Specifications, SSPC-PA-1, Shop, Field and Maintenance painting.
 - I. Coordinate the work of this Section with the work of all other Sections. Review other sections of these specifications and Contract Documents in which prime paints are to be provided to ensure compatibility of total coating system for various substrates. Upon request from other trades, furnish information or characteristics of products to ensure compatible prime coats are used.
 - J. Perform work of this Section in strict accordance with applicable requirements of governmental agencies which have jurisdiction.
- 1.05 SYSTEM INSPECTION AND TESTING
- A. All surface preparation and repairs shall be approved by the Engineer or Owner's Representative before primer is applied.
 - B. After application of each coating in the specified system and its surface has cured, measure its thickness with a properly calibrated Nordson Microtest Dry Film Thickness Gauge, or equivalent. (Use an instrument such as a Tooke gauge if a destructive tester is deemed necessary). Follow standard method for measurement of dry paint thickness with magnetic gages as outlined in Steel Structures Painting Council's SSPC-PA2-73T. The Engineer shall, at his direction, use the Contractor's or his own equipment to perform similar inspections. In addition, painting personnel shall have, in their possession, a wet film thickness gauge. Each painter shall spot check his work for millage at intervals not exceeding 15 minutes painting time and shall make any necessary application adjustments.
 - C. Make as many determinations as needed to ensure the specified thickness values in each typical area. To all surfaces having less dry film thickness than specified, apply additional coat(s) at no extra cost to Owner to bring thickness up to specifications.

- D. For immersed, interior surfaces, a non-destructive holiday detector (not to exceed 67.5 volts or that suggested by the coating manufacturer) shall be used. All identified pinholes shall be repaired in accordance with the manufacturer's printed recommendations and then retested.
- E. Masonry, drywall or other non-metallic surfaces shall be continuously checked with wet film thickness gauges during application to ensure proper dry film thickness will be attained. Also, square feet coverages need to be monitored to verify proper coverage rates.
- F. Painting contractor shall permit Owner's representative and/or paint and coating manufacturer (as requested by Owner) to inspect his work for conformance to this specification. Owner reserves the right to reject all work which does not comply with this specification.

1.06 PRODUCT HANDLING

- A. Approved paints shall be delivered ready mixed in labeled, sealed, new, unopened, and undamaged original manufacturer's containers. Labels shall include manufacturer name, paint type, brand color, contents, formula or specification number, generic type, date of manufacture, coverage, warnings and special precautions, surface preparation, drying time, clean up, color designation, mixing and reducing instructions. Labels must be completely intact and legible.
- B. Immediately upon delivery to site, inspect all products for damage and conformance. Remove damaged or non-conforming products from site. Do not use damaged or non-conforming products.
- C. Do not deliver products to site until construction has advanced to the stage that they will be needed promptly.
- D. Storage
 - 1. Take all necessary precautions to prevent fire, explosions, and other damage in storage and work areas. Maintain neat, orderly and clean conditions in storage area.
 - 2. All rags and paint or solvents must be stored in closed metal containers at all times. Remove rags and waste materials at end of each day's work.
 - 3. Store all paint materials in a single location, and as per manufacturer's recommendations. Protect from freezing. Close containers at end of each day's work. Leave no materials open. All coating materials not in actual use shall be stored in tightly covered containers.

- E. Paints in unlabeled or distressed containers shall not be used and any item finished with paint from unacceptable containers shall be rejected.

1.07 JOB CONDITIONS

A. Environmental Requirements:

1. Strictly comply with manufacturer's recommendations as to conditions under which coatings can be stored and applied.
2. Ambient and surface temperature shall not be less than 50 degrees F nor more than 90 degrees F with relative humidity below 80% in the area of coating work, for 24 hours prior to, during, and 24 hours after application, unless the manufacturer's recommendations specifically stipulate otherwise.
3. Do not apply coating in areas where dust is being generated. Surfaces shall be free of foreign matter. Spaces shall be dust free and broom clean.
4. Lighting shall be adequate as required for proper application, provided by applicator as necessary to supplement temporary lighting. Paint only during daylight hours.
5. All painting shall be discontinued well in advance of dusk to permit paint to acquire "tack free to touch" condition prior to dew fall.
6. Do not paint in excessive humidity, rain, fog or mist. Do not paint wet, damp or humid surfaces.
7. Do not paint porous surfaces which have a moisture content above 12%.

B. Protection:

1. Cover or otherwise protect all finished work of other trades and surfaces not being painted. Repair damaged surfaces.
2. Remove finish hardware, accessories, light fixtures and cover plates, factory finished work, and similar items. Replace upon completion of painting.
3. Prevent any fire hazards. Remove empty paint containers from site.

1.08 SUBMITTALS

- A. Submit a complete list of products and manufacturer's technical and product data on each product indicating manufacturer, brand name, quality and type of paint for each surface to be painted as per Section 01340. Submit application instructions for each Product. Submit performance test results for each product.
- B. Request for substitution shall include manufacturer's literature for each product giving the name, generic type, descriptive information, evidence of equivalence and satisfactory past performance. Submittals shall include the following performance data as certified by a qualified testing laboratory:
 - 1. Abrasion Fed. Test Method Std. No. 141, Method 6192, CS-17 wheel, 1,000 grams load.
 - 2. Adhesion Elcometer Adhesion Tester
 - 3. Exterior Exposure Exposed at 45 degrees facing ocean
 - 4. Hardness ASTM D3363
 - 5. Humidity ASTM D2247
 - 6. Salt Spray (FOG) ASTM B117
- C. Substitutions which decrease the film thickness, the number of coats applied, change the generic type of coating, or fail to meet the performance criteria of the specified materials will not be approved. Prime and finish coats of all surfaces shall be manufactured by the same manufacturer.
- D. Submit two complete sets of color samples for selection of colors by the Engineer.

1.09 MAINTENANCE MATERIALS

Provide the Owner with one gallon of each color/type paint used. Containers are to be unopened and labeled.

2.0 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with requirements, provide products of one of the following:

1. Sherwin-Williams Company.
2. Pittsburgh Paint, DIVISION of PPG Industries
3. Benjamin Moore.
4. The Glidden DIVISION of SCM Corp.
5. Tnemec

2.02 MATERIALS

A. Provide best quality "first line" grade of each various type of coating as regularly manufactured by a single acceptable paint materials manufacturer. Materials not displaying manufacturer's identification as a standard, best grade product will not be acceptable. Do not use coatings having a lead content. Paint thinners and tints shall be products of same manufacturer as paints and shall be pure, best quality products. Primers shall be products of the same manufacturer as finish coats. Contractor shall be responsible for compatibility of materials.

B. Submit paint schedule of acceptable manufacturer's products to the Engineer. See Part 1 above.

C. Coatings shall be ready mixed unless the products are field catalyzed coatings. Process pigments to a soft paste consistency capable of being readily and uniformly dispersed to a homogeneous coating. Good flow and brushing properties; capable of drying or curing free of streaks or sags.

D. All materials shall be lead and chromate free.

E. No request for substitution will be considered which decreases the film thickness specified and/or the number of coats or changes the generic type of coating.

F. 1. Paint thinners and tints shall be products of the same manufacturer as paints or approved by him for use with his products. Use only within recommended limits.

2. Shellac, turpentine, patching compounds and similar materials required for execution of work shall be pure, best quality products.

2.03 COLORS

- A. Color schedule will be developed by the Engineer, approved by the Owner, and furnished to the Contractor after color sample sets are submitted by the Contractor.
- B. Paint or coating colors used shall match color chips and final schedule furnished to Engineer.

2.04 MIXING AND TINTING

- A. All tinting colors are to be of type recommended by manufacturer of paint or coating whose products are used on this project.
- B. Use factory mixed colors, shades and tints. Job site tinting of finish coats is to be done only when specifically approved in writing by the Engineer.
- C. When specified paints are furnished in only certain colors, those colors may be used and may be top coated to attain the color selected in the painting schedule of this project.

3.0 EXECUTION

3.01 PREPARATION

- A. Applicator must examine areas and conditions under which the work of this Section is to be applied. Notify General Contractor of any condition detrimental to the proper and timely completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Applicator. Verify that surfaces and substrate conditions are acceptable and ready to receive work as instructed by the product manufacturer. Beginning of installation means acceptance of existing surfaces and conditions.
- B. Ensure all items by other trades associated with or related to this work are properly installed. Coordinate the work of this Section with work of all other Sections.
- C. Correct and repair minor defects and clean surfaces which affect work of this Section.

- D. Shellac and seal marks which may bleed through surface finishes.
- E. Application of any paint or coating to the surfaces shall constitute acceptance of that surface by this Contractor. All preparation and cleaning shall conform to requirements of the paint manufacturer and if a conflict exists between those requirements and the requirements mentioned herein, the manufacturer's requirements shall apply.
- F. All surfaces must be dry and free of loose or foreign matter, grease, oil, dust, rust, scale, dirt, moisture, etc. and surface defects before applying any paint or coating. Surfaces must be as required to obtain a sound sustaining bond between the surface and the coating. Coordinate cleaning/preparation with painting so that contaminants from cleaning process will not fall onto wet, newly-painted surfaces or into products in use.
- G. Moisture content of gypsum board, plaster, block, brick, concrete or any other related surface to be painted, shall not exceed twelve percent (12%). If moisture content is between eight percent (8%) and twelve percent (12%), prime with alkali resistant primer in place of specified primer. Alkalinity content shall be within limits set by coating manufacturer. Concrete, plaster, and concrete masonry units must be in place and cured for minimum 28 days prior to coating. Remove efflorescence, chalk, dust, dirt, laitence, grease, oils and loose particles on cementitious materials.
- H. Remove mildew with approved solution.
- I. Provide barrier coats over incompatible primers or remove primer and re-prime as required. Notify Engineer in writing of any anticipated problems in using the specified coating systems with substrates primed by others.
- J. Latex fill minor gypsum board surface defects and spot prime.
- K. Remove all rust from ferrous surfaces to be painted.
- L. All paint and coating materials must be thoroughly stirred and mixed.
- M. Touch up all shop applied primers using same materials as used in shop. All surfaces of steel or ferrous material that will become inaccessible after installation or by adjacent construction shall be fully coated prior to such inaccessibility.
- N. All mixing, thinning, stirring and application shall be done in strict accordance with the manufacturer's printed instructions and recommendations.

- O. Apply paint at the consistency recommended by the manufacturer. Additional thinning will not be permitted.
- P. Stir materials before application to produce a mixture of uniform density, and stir as required during application. Do not stir surface film into material. Remove film, and, if necessary, strain material before using.

3.02 APPLICATION

- A. Apply paint only when moisture content of surface is within manufacturer's recommended limits.
- B. Each coat of paint shall be applied uniformly and completely over the entire surface with proper spreading rate listed by the related paint manufacturer.
- C. Each coat of paint must have evidence of solid hiding and uniform appearance free from visual evidence of poor application. All coats shall be thoroughly dry before applying succeeding coats. (Follow manufacturer's recommended drying times). Do not re-coat until paint feels firm, does not deform or feel sticky under moderate thumb pressure, and re-coating does not cause lifting or loss of adhesion of the undercoat.
- D. All applications shall conform with criteria supplied by the paint manufacturer; and where criteria mentioned herein conflicts with the manufacturer's criteria, the manufacturer's requirements shall govern.
- E. Use applicators and techniques best suited for substrate and type of material being applied.
- F. Paint edges adjoining other materials or colors shall be sharp and clean with no overlapping.
- G. Brush applied paint must be brushed out uniformly to eliminate laps, skips and excess brush marks. Use clean brushes.
- H. Roller Applied Paint: Proper skill must be used to avoid all sags or lapping and excess paint lines from edge of roller. When cutting in with a brush is required, these areas must be of same texture, color and hiding as adjacent areas to assure good uniform, consistent appearance. Use clean roller.
- I. Spray applications of paint will be allowed only in approved areas. Use clean spraying equipment. Spray applications shall strictly conform to paint manufacturer's recommendations and requirements.
- J. Fill all voids and achieve a smooth surface. Pinholes will not be acceptable.

- K. Each coat of finish enamel or varnish paint shall be lightly sanded and wiped free of dust before applying next coat to remove defects visible from a distance of 5'-0".
- L. Apply additional coats when undercoats, stains or other conditions show through final coat of paint, until paint film is of uniform finish, color and appearance.
- M. Give special attention to insure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
- N. Slightly vary the color of successive coats.
- O. Exposed piping, conduits, ductwork, hangers and related or similar materials shall be painted. Do not paint piping until the piping has been tested and approved.
- P. Spot painting to correct soiled or damaged paint surfaces will be allowed only when touch-up spot is blended into surrounding finish and is invisible to normal viewing. Otherwise, re-coat entire section to corners or visible stopping point.
- Q. Use rate of application and application thickness as recommended by paint manufacturer.
- R. Finish on door tops, bottoms and side edges shall be same as door face.
- S. First coat (primer), if scheduled, may be omitted on shop-primed metal surfaces. Shop coat shall be prepared and touched up in the field.
- T. Apply first coat material to cleaned and prepared surfaces as soon as practicable after preparations and before subsequent surface deterioration.
- U. Skips, sags, streaks, laps, drips, ridges, waves, brush marks, cloudiness, spotting, variations in color and holidays are not acceptable. Finish coats shall be smooth and uniform.
- V. Remove and protect hardware, accessories, device plates, trims, lighting fixtures, factory finished work and similar items, or provide ample in-place protection. Upon completion of painting work, carefully replace all removed items.

2nd Coat	N140 F Polyamidoamine	6.0 - 8.0 mils DFT
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This system shall be used for interior of all raw water steel piping (One Coat Only) and Steel/Ductile Iron Piping Exteriors and pumps, (Two coats required).

- D. Structural Steel Exterior and Interior (Tnemec Pot-a-Pox System)
- | | | |
|---------------|---|--------------------|
| Surface Prep: | SSPC-SP6/NACE 3 Commercial Blast Cleaning | |
| 1st Coat | N140 F Polyamidoamine | 6.0 - 8.0 mils DFT |
| 2nd Coat | N140 F Polyamidoamine | 6.0 - 8.0 mils DFT |

E. General Inclusions

1. Exposed miscellaneous metal
2. Steel posts and connections.

3.05 PROTECTION

- A. Protect surfaces and elements surrounding the Work of this Section from damage or disfiguration due to work of this Section. Use all means necessary.
- B. Repair or replace damage to other surfaces caused by Work of this Section.
- C. Furnish all protective devices and methods needed to prevent spray or droppings from damaging other surfaces.
- D. Provide "Wet Paint" signs as required to protect newly-painted finishes.
- E. Protect all painted surfaces from damage and soiling until Final Acceptance of project. Touch-up and restore all damaged or defaced painted surfaces.
- F. Remove temporary protective wrappings provided by others for protection of their work during painting, after completion of painting operations.

3.06 GUARANTEE

All materials and workmanship for work in this section shall be guaranteed for one (1) year from the date of final acceptance of the project.

3.07 COLOR SCHEDULE

- A. Architectural and Miscellaneous items

1. Colors shall be selected by the Engineer for all interior and exterior painting from color samples submitted. Exterior color scheme may include up to four (4) colors and interior color scheme may include up to three (3) colors.
2. All painted items except as specifically listed in item B below are included.

B. Top coats of mechanical piping and electrical conduits:

<u>Contents</u>	<u>Abbreviation</u>	<u>Pipe Color</u>	<u>Band Color</u>
Domestic Potable Water	PW	Dark Blue	None
Fire Water	FW	Safety Red	None
Drain	D	Gray	None
Raw Water	R	Olive Green	Safety Red
Coolant Water w/Glycol	CG	Safety Green	None
Fuel	F	Black	White
Oil	O	Black	White
Sanitary Sewer	SS	Gray	Brown
Vent	V	Gray	None
Compressed Air	CA	Dark Green	White
Electrical	E	Safety Red	None

Notes: 1. Bands to be 2" wide at 12" o.c.

2. Hanger and brackets shall be painted to match pipe (or supported item) only up to the surface to which they attach. Portion in contact with surfaces shall be painted to match that surface.
3. The Owner may have an established piping color scheme which may differ from the above. Contractor shall submit color scheme prior to any final pipe painting.
4. In addition to the above mentioned painting and striping, pipe shall be additionally identified by pipe marking labels. These labels shall be a minimum of 10" long, color coded and lettered in accordance with ANSI/OSHA Standards, showing arrows for the direction of flow, snap-on removable type as manufactured by the Setmark Company, or prior approved equal.

END OF SECTION

SECTION 11060

EQUIPMENT INSTALLATION

1.0 GENERAL

1.01 SCOPE

- A. This section covers installation of new equipment units that have been purchased by Contractor as part of this Work, or purchased by others under equipment specifications.

1.02 GENERAL

- A. Equipment installed under this section shall be erected and placed in proper operating condition in full conformity with drawings, specifications, engineering data, instructions, and recommendations of the equipment manufacturer, unless exceptions are noted by Engineer.
- B. When pumping units are being installed, hydraulic considerations and definition of terms shall be as set forth in the Hydraulic Institute Standards.
- C. Any equipment identified as being provided by others will be furnished complete for installation by Contractor. Technical specifications under which the equipment will be purchased are available.
- D. Any existing equipment which is removed shall be handled as indicated in the Project Requirements section.

1.03 COORDINATION

- A. When manufacturer's field services are provided by the equipment manufacturer, Contractor shall coordinate the services with the equipment manufacturer. Contractor shall give Engineer written notice at least 30 days prior to the need for manufacturer's field services furnished by others.
- B. Submittals for equipment furnished by others under each procurement contract will be furnished to Contractor upon completion of review by Engineer. Contractor shall review equipment submittals and coordinate with the requirements of the Work and the Contract Documents. Contractor accepts sole responsibility for determining and verifying all quantities, dimensions, and field construction criteria.

- C. Flanged connections to equipment including the bolts, nuts, and gaskets are covered in the appropriate pipe specification section.

1.04 DELIVERY, STORAGE, AND HANDLING.

- A. Upon delivery, all equipment and materials shall immediately be stored and protected by Contractor in accordance with the Handling and Storage section until installed in the Work. Equipment shall be protected by Contractor against damage and exposure from the elements. At no time shall the equipment be stored on or come into contact with the ground, grass, or any other type of vegetation. Contractor shall keep the equipment dry at all times.

2.0 PRODUCTS

2.01 MATERIALS

- A. Materials shall be as follows:
 - 1. Grout as specified on drawings.

PART 3 EXECUTION

3.01 INSTALLATION

- A. The following items shall be installed by the Contractor:
 - 1. Dry-Pit Submersible Pumps
- B. Equipment shall not be installed or operated except by, or with the guidance of, qualified personnel having the knowledge and experience necessary to obtain proper results as specified in the Startup Requirements section.
- C. Each equipment unit shall be leveled, aligned, and shimmed into position. Installation procedures shall be as recommended by the equipment manufacturer and as required herein. Shimming between machined surfaces will not be permitted.
- D. Unless otherwise indicated or specified, all equipment shall be installed on concrete bases at least 6 inches high. Baseplates shall be anchored to the concrete base with required anchor bolts. For equipment with grouted bases, the space beneath shall be filled with grout as specified in the Grout section. The equipment base shall be grouted after initial fitting and alignment.
- E. Anti-seize thread lubricant shall be liberally applied to the threaded portion of all stainless steel bolts during assembly.

- F. When specified in the equipment sections, the equipment manufacturer will provide installation supervision and installation checks. For installation supervision, the manufacturer's field representative will observe, instruct, guide, and direct Contractor's erection or installation procedures as specified in the equipment specifications. For installation checks, the manufacturer's field representative will inspect the equipment installation immediately following erection by Contractor, and observe the tests indicated in Startup Requirements section. The manufacturer's representatives will revisit the site as often as necessary to ensure installation satisfactory to Owner.

3.02 PUMPING UNITS

- A. When pumping units are to be installed, the equipment shall be installed in accordance with the Hydraulic Institute Standards. When installing pumping units, the equipment base shall be grouted after initial fitting and alignment, but before final bolting of connecting piping. Special care shall be taken to maintain alignment of pumping unit components. No stresses shall be transmitted to the pump flanges. After final alignment and bolting, connections to pumping equipment shall be tested for applied piping stresses by loosening the flange bolts. If any movement or opening of the joints is observed, piping shall be adjusted to proper fit.
- B. Control cables shall be supported to avoid tension and damage. Mounting of cable supports will be coordinated by the pump supplier.

3.03 STARTUP AND TESTING

- A. When specified in the equipment sections, the equipment will be test run at the point of manufacture and test results will be delivered to Engineer. Such equipment will not be shipped until Engineer has reviewed the test results and advised the Contractor, in writing, that the equipment is acceptable for shipment. Such acceptance, however will not be considered as final acceptance, which will only be made on the basis of the test results of the equipment after installation.
- B. All items of mechanical equipment shall be given a preliminary field test by Contractor after installation for proper operation, efficiency, and capacity. The preliminary field test shall consist of the requirements listed herein, unless exceptions or additions are indicated in the specific equipment sections.
- C. Contractor's test operations of each piece of mechanical equipment shall continue for not less than 8 hours without interruption. All moving parts or equipment and machinery shall be carefully tested for operation, and adjusted so all parts move freely and function to secure satisfactory operation. All equipment shall be tested continuously under actual or simulated operating

conditions. All parts shall operate satisfactorily in all respects, under continuous full load and in accordance with the specified requirements, for the full durations of the 8 hour test period. If any part of a unit shows evidence of unsatisfactory or improper operation during the 8 hour test period, correction or repairs shall be made and the full 8 hour test operation, as specified, shall be completed after all parts operate successfully.

- D. Tests of all equipment, including auxiliaries shall be made in accordance with the appropriate and approved test codes such as the American Society of Mechanical Engineers, Hydraulic Institute Standards, and IEEE.
- E. When necessary for certain items of equipment, the final adjustments and inspections will be made by factory trained service personnel (other than sales representatives), rather than by Contractor. The service personnel will also supervise the test operation. This requirement will be stated under the detailed specification for the particular piece or pieces of equipment. The manufacturer's service personnel will make adjustments and supervise testing by Contractor until such tests have been accepted by Engineer.

3.04 ACCEPTANCE

- A. When no other field tests for acceptance are specified in the equipment sections, at the end of the field system operation testing, each system will be accepted if, in the opinion of Engineer, it has operated satisfactorily without excessive power use, wear, or need for lubrication, or requiring undue attention; and if all rotating parts operate without excessive vibration or noise at any operation condition.
- B. When other field tests for acceptance are specified in the equipment sections, acceptance shall be after all tests are satisfactorily conducted as specified in the appropriate equipment procurement specification.
- C. When a field performance test for baseline is specified in the equipment sections, acceptance shall be after a completion of the baseline performance test that is conducted as specified in the pumping unit field testing – baseline performance section.
- D. Acceptance of Work in connections with the installation of equipment furnished by others will be subject to approval of the manufacturer's field representative. Acceptance by Owner or approval of the manufacturer's field representative will not relieve Contractor of responsibility for defective Work.

End of Section

SECTION 11150

SUBMERSIBLE DRY-PIT PUMPS

1.0 GENERAL

1.01 SCOPE

- A. The Contractor shall provide all labor, equipment, and material necessary to furnish, install, test and place in operation two submersible dry-pit pumps with all accessories and appurtenances as shown on the drawings and as specified herein.

1.02 EQUIPMENT

- A. Equipment furnished under this section shall be fabricated and assembled in full conformity with Drawings, Specifications, engineering data, instructions, and recommendations of the equipment manufacturer, unless exceptions are noted by Engineer. Hydraulic considerations and definition of terms shall be as set forth in the Hydraulic Institute Standards.

1.03 SUBMITTALS

- A. Complete fabrication and assembly drawings, together with detailed specifications and data covering materials, parts, devices, and accessories forming a part of the equipment furnished, shall be submitted in accordance with the Submittals section. The data and specifications for each unit shall include, but shall not be limited to, the following:

1. Pumps

- a. Name of manufacturer.
- b. Type and model.
- c. Type of bearings.
- d. Rotative speed.
- e. Size of discharge.
- f. Size of suction.
- g. Net weight of pump and motor only.
- h. New weight with pedestal.
- i. Complete performance curve showing capacity versus head, NPSH required, pump efficiency, and pump input power.
- j. Data on shop painting.

2. Motors

- a. Name of manufacturer.
- b. Type and model.
- c. Type of bearings.

- d. Rated size of motor, hp, and service factor.
- e. Insulation class and temperature rise.
- f. Full load rotative speed.
- g. Efficiency at full load and rated pump condition.

B. Operation and maintenance manuals shall be submitted in accordance with the Submittal section. The operation and maintenance manuals shall be in addition to any instructions or parts lists packed with or attached to the equipment when delivered.

1.04 QUALITY ASSURANCE

A. The pumps shall conform to all applicable requirements of NEMA, NEC, SWPA and the Hydraulic Institute. For purposes of this specification, revisions and/or version of the referenced standards in effect on the date of bid shall apply.

B. The pumps specified shall be the product of reputable manufacturers who have been regularly engaged in the design, manufacture and furnishing of submersible dry-pit pumps and motors for at least ten (10) years. The manufacturer of the pump shall assume full responsibility for the compatibility of the supplied components with the application.

C. All rotating parts shall be accurately machined and shall be in as nearly perfect rotational balance as practicable. Excessive vibration shall be sufficient cause for rejection of the equipment. The mass of the unit and its distribution shall be such that resonance at normal operating speeds is avoided.

D. At any operating speed, the ratio of rotative speed to the critical speed of a unit or its components shall be less than 0.8 or more than 1.3.

1.05 SPARE PARTS

A. Spare parts shall be provided for each pump as follows:

<u>Spare Parts</u>	<u>Quantity</u>
Mechanical seals (Upper & Lower)	One Set

B. Spare parts shall be suitably packaged with labels indicating the contents of each package. Spare parts shall be delivered to Owner as directed.

2.0 PRODUCTS

2.01 SERVICE CONDITIONS

A. The equipment provided under this section shall be suitable for the following service conditions:

Maximum ambient air temperature (dry pit).	100 °F
Maximum liquid temperature.	85 °F
Maximum solids concentration, by weight.	5 %
Pumps start and stop against a closed valve.	No

B. All equipment furnished shall be designed to meet all specified conditions and to operate satisfactorily at the elevation indicated. Submersible pumps shall be of a non-clog centrifugal design specifically intended for services requiring reliable solids handling, high efficiency and low NPSHR. The integral pump/motor units shall be designed to operate at a continuous full load duty in air without the need for external cooling.

C. The nameplate ratings of the motor shall be based on 100°F ambient environment. The pump motors shall be designed to withstand 200 psi differential water pressure at all seal locations. Heat transfer shall be accomplished by convection through the stator wall to the surrounding media. Designs that incorporate cooling jackets are not considered equal to the equipment described in this specifications and shall not be acceptable.

2.02 PERFORMANCE AND DESIGN REQUIREMENTS

A. Pumping units shall be designed for the performance and design requirements as follows:

Old Raw Water Pump Station – Motors shall be close looped cooled for operating in air. Motors will not be rated for Class 1 Groups C&D and will not be UL or FM rated.

Pump numbers.	No. 1	No. 2
Pump capacity.	2,100	2,100 gpm
Operating head range for full speed continuous operation.	25 to 50	25 to 50 ft
Maximum nominal pump speed.	1,160	1,160 rpm
Maximum power required.	50	50 bhp
Minimum NSPHA at rated	16	16 ft

Pump numbers.	No. 1	No. 2
head.		
Pump suction diameter	10	10 in
Pump discharge diameter	8	8 in

- B. All specified conditions shall be at rated speed unless otherwise indicated.
- C. The minimum hydrostatic test pressure shall be 1.5 times shutoff head plus max suction pressure.
- D. Pump performance shall be stable and free from cavitation and noise throughout the specified operating head range. The design running clearance between the impeller inlet and the casing wearing ring (if provided) shall be not less than 0.01 inch or 1 mil per inch of casing wearing ring diameter, whichever is greater.

2.03 MATERIALS

Pump casing	Cast iron, ASTM A48.
Suction elbow	Cast iron, ASTM A48
Impeller	Cast iron, ASTM A48
Shaft	One-piece, stainless steel, type 416.
Mechanical Seals	2 tandem single type, oil lubricated with silicon or tungsten carbide seal rings at all points, except the upper rotating seal, which shall be carbon.
Wear rings	Stainless steel
Support pedestal	Steel
Epoxy Coating	
Primer & Finish Coat	Carboline "Carboguard 891" or Tnemec "Series N140 Pota-Pox Plus".

2.04 PUMP CONSTRUCTION

- A. The pump casing and inspection port shall be constructed of ASTM A48 Cast Iron. The pump casing shall incorporate a replaceable suction piece.
- B. The pump impeller will be constructed of ASTM A48 cast iron and will be statically and dynamically balanced.

- C. For pumps with enclosed impellers renewable wear rings shall be provided in the casing and on the impeller. Renewable wear rings or an axially adjustable wearing plate shall be provided in the casing. Casing wearing ring shall be securely fastened to the impeller casing front cover to provide either an axial or radial running clearance. Axially adjustable wearing plate shall be arranged to permit adjustment of the axial running clearance between the impeller and plate. The wearing plate shall have an outward spiralling groove designed to force stringy solids outward and away from the impeller.
- D. The oil chamber shall contain a drain plug and a vent plug.
- E. Each pump shall be provided with two mechanical rotating shaft seals arranged in tandem and running in an oil chamber. Each interface shall be held in contact by an independent spring system designed to withstand maximum suction submergence. The seals shall require neither maintenance nor adjustment and shall be readily accessible for inspection and replacement. Shaft seals lacking positively driven rotating members or conventional double mechanical seals which utilize a common single or double spring acting between the upper and lower units and requiring a pressure differential to offset external pressure and effect sealing, will not be acceptable. The seals shall not rely upon the pumped media for lubrication and shall not be damaged if the pumps are run unsubmerged for extended periods while pumping under load.
- F. All mating surfaces of major components shall be machined and fitted with O-rings where watertight sealing is needed. Sealing shall be accomplished by O-ring contact on four surfaces and O-ring compression in two planes, without reliance on a specific fastener torque or tension to obtain a watertight joint. The use of elliptical O-rings, gaskets, or seals requiring a specific fastener torque value to obtain and maintain compression and watertightness will not be acceptable. The use of secondary sealing compounds, gasket cement, grease, or other devices to obtain watertight joints will not be acceptable.
- G. A pump support pedestal and long radius reducing suction elbow shall be furnished by the pump manufacturer. The base shall be sufficiently rigid to firmly support the suction piping, discharge piping, and pumping unit under all operating conditions. The base shall be provided with four (4) support legs or pads suitable for bolting to the floor of the dry well. The face of the suction elbow inlet flange shall be perpendicular to the floor and shall make contact with the face of the pump suction nozzle flange. Elbow shall have a bolted cleanout with interior plate flush with elbow end in order to reduce pressure loss and turbulence into impeller eye.

- H. All iron and steel parts which will be in contact with pumped liquid or submerged after installation, including the inside of the casing, the impeller, and the discharge elbow, shall be shop cleaned in accordance with the coating manufacturer's recommendations and painted with the epoxy coating system specified. The coating shall have a dry film thickness of at least 10 mils and shall consist of a prime (first) coat and one or more finish coats. At least 1 quart of the finish coat material shall be furnished with each pump for field touch-up. The shop painting of other surfaces shall be in accordance with the shop painting requirements in the General Equipment Stipulations.

2.05 ELECTRIC MOTORS

- A. The motor shall be of the air-filled type and shall be cooled by an internal closed loop cooling system. Motor heat dissipation shall be accomplished by circulating a heat transfer fluid from an integral reservoir through channels that are internally cast into the motor stator housing. The bottom of the reservoir shall be designed to provide adequate retention time of the heat transfer fluid to ensure positive heat transfer. The heat transfer fluid shall be environmentally safe and shall not require hazardous material disposal. Primary heat transfer shall be accomplished by convection through the reservoir wall to the pumped fluid.
- B. The motor bearings shall be antifriction, permanently lubricated type. The lower bearing shall be fixed to carry the pump thrust and the upper bearing free to move axially. The bearings shall have a calculated ABMA L₁₀ Life Rating of 40,000 hours when operating at maximum operating head. Maximum shaft runout at the mechanical seals shall not exceed 2 mils at any point in the operating head range.
- C. Motors shall be capable of continuous operation in air under pump full load conditions, without exceeding the temperature rise limits for the motor insulation system.
- D. Motors shall be inverter-duty and capable of operating over a range of 80-100 percent of rated speed.
- E. The nameplate ratings of the motor shall be based on 40° C ambient temperature environment and have a 1.15 service factor. The pump motors shall be designed to withstand 150 feet of static pressure. All motors shall be furnished and certified per IEEE 117 with Class "H" rated insulation materials. All motors shall conform to the requirements of the NEMA Premium Efficiency Electric Motor Program.
- F. Power cables shall be a minimum of 60 ft. long for each motor. Contractor will verify cable length necessary to reach from the motor to the junction boxes in the pump house prior to ordering the pumps and will provide the

specific length of power cord to be provided for each pump on the pump submittal.

2.06 CONTROLS

- A. Each motor shall be protected by one motor temperature switch embedded in each phase winding. Each switch shall be designed to operate at 140°C ($\pm 5^\circ\text{C}$). Each switch shall be normally closed automatic reset type rated 5 amps at 120 volts ac. The switches shall be wired in series with end leads wired to terminals within the motor housing.

2.07 MANUFACTURERS

- A. Submersible pumps shall be as manufactured by Yeomans Pump, Aurora, IL, Wilo USA, LLC Rosemont, IL, or approved equal.

3.0 EXECUTION

3.01 INSTALLATION

- A. Each pumping unit will be installed in accordance with the Equipment Installation section.
- B. Connect the pump power cords to the existing disconnect switches located on the top floor of the pump station. Pumps will be operated by the existing electrical systems that are to remain in place.

3.02 FIELD QUALITY CONTROL

- A. An experienced, competent, and authorized representative of the manufacturer shall visit the site of the Work and inspect, check, adjust if necessary, and approve the equipment installation. The representative shall be present when the equipment is placed in operation in accordance with Section 11060, Equipment Installation, and shall revisit the job site as often as necessary until all trouble is corrected and the equipment installation and operation are satisfactory in the opinion of Engineer. The manufacturer's representative shall furnish a written report certifying that the equipment has been properly installed and lubricated; is in accurate alignment; is free from any undue stress imposed by connecting piping or anchor bolts; and has been operated under full load conditions and that it operated satisfactorily. All costs for these services shall be included in the contract price.
- B. Installation supervision by the manufacturer is not required.

3.03 WARRANTY

- A. The Contractor and equipment manufacturer shall warrant the pumps and motors, including the coatings to be free from defects in workmanship, design, and materials for a 2-year period. Defects shall include failures in the painting system. If any parts of the equipment should fail or become defective during the warranty period, they shall be replaced or restored to their original condition to the satisfaction of the Owner and the equipment restored to service at no cost to the Owner. The warranty period shall commence on the date of Substantial Completion for the project.

End of Section

SECTION 15069

CHEMICAL AND COMPRESSED AIR PIPING

1.0 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes piping and related specialties for general-service compressed-air systems operating at 250 psig or less.

1.3 SUBMITTALS

- A. Product Data: For the following:
 - 1. Pipes, fittings, and valves.

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

- A. Schedule 40, Stainless Steel Pipe: ASTM A 312/A 312M, with ends threaded according to ASME B1.20.1.
 - 1. Wrought Austenitic Stainless Steel Fittings: ASTM A 403/A 403M threaded.
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) Smith-Cooper International
 - 2) Trenton Pipe Nipple Company, LLC
 - b. Couplings: AWWA C606 or UL 213, for steel-pipe dimensions and rated for 300-psig minimum working pressure. Include ferrous housing sections, gasket suitable for compressed air, and bolts and nuts. Provide EDPM gaskets for oil-free compressed air. Provide NBR gaskets if compressed air contains oil or oil vapor.

- B. HDPE Pipe and Fittings: AWWA C901, DR 9: with PE 3608 compound required to give pressure rating not less than 250 psig.
- C. Transition Couplings: Provide HDPE to stainless steel transition couplings with stainless steel female NPT threaded end and DR 9 HDPE suitable for fusing onto HDPE piping.

2.2 VALVES

- A. Three-Piece, Full-Port, Carbon Steel Valves with Stainless Trim:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following or equal:
 - a. Conbraco Industries, Inc.; Apollo Valves.
 - b. NIBCO INC.
 - 2. Description:
 - a. Standard: MSS SP-110.
 - b. CWP Rating: 1000 psig.
 - c. Body Design: Three piece.
 - d. Body Material: Carbon Steel.
 - e. Ends: Threaded.
 - f. Seats: PTFE or TFE.
 - g. Stem: ASTM A 276 Stainless Type 316.
 - h. Ball: ASTM A 276 Stainless Type 316.
 - i. Port: Full.

PART 3 - EXECUTION

3.1 PIPING APPLICATIONS

- A. High-Pressure Compressed-Air Distribution Piping: Use the following piping materials for each size range:
 - 1. NPS 2 and Smaller: Schedule 40, 304 stainless steel with threaded joints and fusible HDPE DR 9.

3.2 PIPING INSTALLATION

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of chemical and compressed-air piping. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.

- B. HDPE piping to be installed by directional drilling. All HDPE piping is to be pulled in unison for the lengths indicated on the drawings.
- C. Install piping indicated to be exposed parallel to building walls. Diagonal runs are prohibited, unless otherwise indicated.
- D. Install nipples, flanges, unions, transition and special fittings, and valves with pressure ratings same as or higher than system pressure rating, unless otherwise indicated.
- E. Install piping to permit valve servicing.
- F. Install piping free of sags and bends.
- G. Install fittings for changes in direction and branch connections.
- H. Install sleeve seals for piping penetrations of concrete walls and slabs.

3.3 JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- D. HDPE Piping: Join according to manufacturers recommendation.

3.4 VALVE INSTALLATION

- A. Install shutoff ball valve at connection point on walkway.

3.5 CONNECTIONS

- A. Install unions, in piping NPS 2" and smaller, adjacent to each valve and at final connection to each piece of equipment.

3.6 HANGER AND SUPPORT INSTALLATION

- A. Vertical Piping: MSS Type 8 or 42, clamps.
- B. Individual, Straight, Horizontal Piping Runs:
 - 1. 100 Feet or Less: MSS Type 1, adjustable, steel clevis hangers.
- C. Support horizontal piping within 12 inches of each fitting and coupling.
- D. Install hangers for Schedule 40, stainless steel piping with the following maximum horizontal spacing and minimum rod diameters:
 - 1. NPS 2: 13 feet with 3/8-inch rod.
- E. Install supports for vertical, Schedule 40, stainless steel piping every 15 feet.

3.7 FIELD QUALITY CONTROL

- A. Perform field tests and inspections.
- B. Tests and Inspections:
 - 1. Piping Leak Tests for Compressed-Air Piping: Test new and modified parts of existing piping. Cap and fill general-service compressed-air piping with oil-free dry air or gaseous nitrogen to pressure of 50 psig above system operating pressure, but not less than 250 psig. Isolate test source and let stand for four hours to equalize temperature. Refill system, if required, to test pressure; hold for two hours with no drop in pressure.
 - 2. Repair leaks and retest until no leaks exist.
- C. Prepare test reports.

END OF SECTION

SECTION 15100

VALVES AND APPURTENANCES

1.0 GENERAL

1.01 SCOPE

- A. Furnish all labor, materials, equipment, and incidentals required, and install complete and ready for operation, all valves and appurtenances as shown on the Drawings and as specified herein.
- B. The equipment shall include, but not be limited to, the following:
 - 1. Gate valves and appurtenances for buried service
 - 2. Ball valves
 - 3. Check valves
 - 4. Knife Gate valves

1.02 RELATED WORK

- A. Excavation, backfill, fill and grading is included in Division 2.
- B. Piping is included in Divisions 2.

1.03 SUBMITTALS

- A. Submit to the Engineer, in accordance with Section 01340, copies of all materials required to establish compliance with this Section. Submittals shall include at least the following:
 - 1. Certified drawings showing all important details of construction and dimensions.
 - 2. Descriptive literature, bulletins, and/or catalogs of the equipment.
 - 3. All information required by Section 01340.
 - 4. The total weight of each item.
 - 5. A complete total bill of materials.
 - 6. A list of the manufacturer's recommended spare parts.

B. Operation and Maintenance Data

1. Operating and maintenance instructions shall be furnished to the Engineer as provided in Section 01340. The instructions shall be prepared specifically for this installation and shall include all required cuts, drawings, equipment lists, descriptions, etc, that are required to instruct operating and maintenance personnel unfamiliar with such equipment.

1.04 REFERENCE STANDARDS

A. American Society for Testing and Materials (ASTM)

1. ASTM A48 - Standard Specification for Gray Iron Pipe.
2. ASTM A126 - Standard Specification for Gray Iron Casting for Valves, Flanges and Pipe Fittings.
3. ASTM A536 - Standard Specification for Ductile Iron Castings

B. American Society of Mechanical Engineers (ASME)

1. ASME B2.1 - Specifications, Dimensions, Gauging for Taper and Straight Pipe Threads (except dry seals).
2. ASME B16.1 - Cast Iron Pipe Flanges and Flanged Fittings.

C. American Water Works Association (AWWA)

1. AWWA C111 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
2. AWWA C500 - Metal-Seated Gate Valves for Water Supply Service.
3. AWWA C508 - Swing-Check Valves for Waterworks Service 2-in (50-mm) Through 24-in (600mm) NPS.

D. American National Standards Institute (ANSI)

E. Steel Structures Painting Council (SSPC)

1. SSPC SP5 - Surface Preparation Specification No. 5 White Metal Blast Cleaning.

F. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.05 QUALITY ASSURANCE

A. All of the types of valves and appurtenances shall be products of well established firms who are fully experienced, reputable and qualified in the manufacture of the particular equipment to be furnished. The equipment shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with this Section as applicable.

1.06 SYSTEM DESCRIPTION

- A. All of the equipment and materials specified herein is intended to be standard for use in controlling the flow of raw water, air or chemicals, depending on the applications.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. General

1. All valves and appurtenances shall be of the size shown on the Drawings and as far as possible all equipment of the same type shall be from one manufacturer.
2. All valves and appurtenances shall have the name of the maker, flow directional arrows and the working pressure for which they are designed cast in raised letters upon some appropriate part of the body.
3. All buried valves shall open left (counter clockwise). Insofar as possible, all valves shall open counter clockwise.

2.02 VALVES

A. Gate Valves and Appurtenances

1. Gate valves shall meet the requirements of AWWA C500. Valves shall be rated for 150 psi working pressure and a minimum 300 psi test pressure. Valves shall be iron body, bronze-mounted, solid wedge, parallel seat, rising stem (interior valves) and non-rising stem (exterior buried valves) type fitted with O-Ring seals. The operating nuts shall be 2-in square. All valves shall open left, or counterclockwise. Stuffing boxes shall be the O-Ring type. Gate valves shall be mechanical joint, ANSI 21.11 except where shown otherwise on the drawings.
2. Buried Valves: Valve boxes shall be provided for each buried valve. They shall be cast iron, of heavy pattern, adjustable type and provided with cast iron cover. The upper section of each box shall have a bottom flange of sufficient bearing area to prevent settling. The bottom of the lower section shall enclose the stuffing box and operating nut of the valve. Boxes shall have barrels of not less than 5-in in diameter and be of length adapted to pipe cover. Boxes shall be adjustable, with a lap of at least 6-in when in the most extended position. Provide valve stem extensions for all buried valves.

B. Ball Valves

1. Ball valves compressed air and chemical lines shall be of 316 stainless steel with

threaded ends as required. Valve bodies shall be double union type. Ball valves shall be as manufactured by Apollo, Nibco or approved equal. All valves shall be full port design, have reversible PTFE seats, EPDM seals and double o-ring stem seals.

C. Check Valves

1. Check valves for pump discharge pipelines shall be swing disk type. The valves shall have ASTM A536 Grade 65-45-12 ductile iron body. The disk shall be precision molded Buna-N (NBR), ASTM D2000-BG. Check valves shall be as follows:
 - a. Valve body shall be full flow equal to the nominal diameter at all points through the valve.
 - b. The seating surface shall be on a 45 degree angle to minimize disk travel. A threaded port with pipe plug shall be provided on the bottom of the valve to allow for field installation of a backflow actuator or oil cushion device without special tools or removing the valve from the line.
 - c. The disk shall be of one-piece construction, precision molded with an integral O-ring type sealing surface and reinforced with alloy steel. The flex portion of the disk shall contain nylon reinforcement and shall be warranted to a period of 25 years.
 - d. The check valve shall be Swing-Flex Model 500 as manufactured by Valmatic Valve and Manufacturing Corp.

D. Knife Gate Valve

1. Knife gate valves shall be bonnetless, wafer type made with a cast iron body, with several support ribs for a strong, flanged connection. Valves shall have a fabricated stainless steel liner.
2. Knife gate valves shall be provided with standard flanges. Flange holes are to be drilled and tapped. Flange drilling dimensions to meet ANSI B16.5, Class 125/150.
3. Knife gate valves shall have all wetted parts of 316 stainless steel. Stainless steel liner shall extend through the valve chest to the top of the packing gland. Both sides of the gate shall be finished ground. The stem shall be stainless steel and shall have double pitch threads. The yoke nut shall be acid-resistant bronze.
4. Knife gate valves shall have a raised seat with a relieved area around the seat to prevent jamming.
5. Knife gate valves shall be suitable for 150-psi pressure differential.
6. Knife gate valves shall be Series G style as manufactured by the Red Valve Co.,

Inc. of Carnegie, PA or approved equal.

E. Pressure Gauges

1. Pressure gauges shall be furnished and installed in each pump suction and discharge. Where gauge tappings are not available in the pumps suction or discharge, the necessary tappings in the adjacent piping shall be made for installation of gauge connections.
2. Pressure gauges for the above services shall have a black case and shall be 4-1/2-in nominal diameter with phosphor bronze Bourdon tubes (beryllium copper bellows), 1/4-in NPT male connection, stainless steel rack and pinion movement, microadjustment for calibration, white dials and black figures, threaded ring case. All gauges shall be furnished with protective diaphragm attachment as specified above. Gauges shall be installed with brass nipples no shorter than 2-in and a manufacturer's standard pulsation dampener and shutoff valve.
3. Provide isolation ball valve for each pressure gauge.
4. Gauges shall be by U.S. Gage, Sellersville, Pa.; Crosby-Ashton, Wrentham, Mass. or equal.

F. Discharge Pipe Air Release Valve

1. The air valve, for air release use, shall be as manufactured by APCO Series 200A or approved equal; constructed with the following materials and details:
 - a. The body shall be cast iron ASTM A 126 Grade B.
 - b. The Float shall be ASTM A240 Type 304 Stainless Steel and shall seat against resilient BUNA-N, zero leakage seals.
 - c. The leverage frame shall be ASTM A126 Grade B Cast Iron.
 - d. Float linkage shall be ASTM A 296 Type 316 Stainless Steel.
 - e. Valve shall be capable of allowing entrained air to escape the discharge tube at a flow rate of 20 cfm when operating at a system pressure of 20 psi and utilizing a 5/16" orifice.

2.03 SURFACE PREPARATION AND SHOP PRIME PAINTING

- A. Interior surfaces of all valves, the exterior surfaces of buried valves and miscellaneous piping appurtenances shall be given a shop finish with a coating suitable for use with potable water.

PART 3 EXECUTION

3.01 INSTALLATION

- A. All valves and appurtenances shall be installed in the locations shown, true to alignment and rigidly supported. Any damage to the above items shall be repaired to the satisfaction of the Engineer before they are installed.
- B. After installation, all valves and appurtenances shall be tested at least 1 hour at the working pressure corresponding to the class of pipe, unless a different test pressure is specified. If any joint proves to be defective, it shall be repaired to the satisfaction of the Engineer.
- C. Install all brackets, extension rods, guides, the various types of operators and appurtenances as shown on the. Before setting these items, check all plans and figures which have a direct bearing on the proper location of these valves and appurtenances during the construction of the structures.
- D. All materials shall be carefully inspected for defects in workmanship and materials; all debris and foreign material cleaned out of valve openings, etc; all operating mechanisms operated to check their proper functioning and all nuts and bolts checked for tightness. Valves and other equipment which do not operate easily, or are otherwise defective, shall be repaired or replaced at no additional cost to the Owner.
- E. Buried flanged or mechanical joints shall be made with cadmium plated bolts. All exposed bolts and nuts shall be cadmium plated. All exposed bolts and nuts shall be heavily coated with two coats of bituminous paint comparable to Inertol No. 66 Special Heavy.
- F. Buried valves and valve boxes shall be set with the stem vertically aligned in the center of the gate box. Valves shall be set on a firm foundation and supported by tamping selected excavated material under the sides of the valve. The valve box shall be supported during backfilling and maintained in vertical alignment with the top flush with finish grade.

3.02 INSPECTION AND TESTING

- A. The various pipe lines in which the valves and appurtenances are to be installed are specified to be field tested. During these tests any defective valve or appurtenance shall be adjusted, removed and replaced, or otherwise made acceptable to the Engineer.
- B. Various regulating valves, strainer, or other appurtenances shall be tested to demonstrate their conformance with the specified operational capabilities and any deficiencies shall be corrected or the device replaced or otherwise made acceptable to the Engineer.

- END OF SECTION -

SECTION 16010

BASIC ELECTRICAL REQUIREMENTS

1.0 GENERAL

1.01 SUMMARY

- A. This section is an extension of the General Requirements (Division 1 of these Specifications) and certain items of a common or administrative nature that pertain to all electrical work.
- B. The work of this section consists of furnishing materials, equipment, constant competent supervision, special tools, test equipment, technicians, and labor necessary for installation of a complete working electrical system as indicated herein and on the Drawings.

1.02 QUALITY ASSURANCE

- A. The electrical installation shall conform to the requirements of the 2008 edition of the National Electrical Code (NEC). Notify Architect/Engineer of conflicts before performance.
- B. Electrical material shall be built and tested in accordance with the applicable standards of the National Electrical Manufacturers' Association (NEMA), the American National Standards Institute (ANSI) the American Society for Testing and Materials (ASTM), and the Institute of Electrical and Electronic Engineers (IEEE)
- C. Electrical materials shall be new and unused and shall be listed and labeled for the service intended by Underwriters' Laboratories, Inc., where such labeling service is available.
- D. Applicable sections of the following codes and standards shall also be followed:
 - 1. NFPA - National Fire Protection Association including NFPA-101, Life Safety Code.
 - 2. OSHA Code of Federal Regulations (for construction practices).
 - 3. International Building Code (latest edition) as adopted by the State of Louisiana..
 - 4. Applicable state and local codes/ordinances.

5. CBM - Certified Ballast Manufacturer
6. IPCEA - Insulated Power Cable Engineers' Association
7. FM - Factory Mutual
8. ETL - Electrical Testing Laboratories
9. IES - Illuminating Engineering Society
10. NECA – National Electrical Contractors Association

E. Include all items of labor and materials required to comply with the above referenced codes and standards. Where quantities, sizes, or other requirements indicated on Drawings or herein specified are in excess of the requirements of the standards and codes, the Specifications or Drawings shall govern.

1.03 REGULATORY REQUIREMENTS

- A. Permits: Obtain and pay for all necessary permits, inspections, connection charges, fees, insurance, bond, licenses, and comply with all governing laws, ordinances, rules and regulations including those of the National Fire Protection Association and all municipal, state or other authority having jurisdiction over the work.
- B. Certificates of Inspection: Upon completion and before the date of substantial completion of each designated Phase, furnish a certificate of inspection issued by the proper authorities to the effect that the installation is in full conformity with all local and state requirements.

1.04 COORDINATION

- A. Lay out the work and be responsible for its correctness. Take such measurements as may be necessary to assure approved fitting and proper installation of work, and all other work depending thereon.
- B. Arrange work in a neat, well organized manner with exposed conduit and similar services running parallel with primary lines of the construction elements.
- C. Perform all work in the best and most substantial manner by workmen skilled in the work to be done. Provide adequate supervision at all times.
- D. Cooperate with other contractors to avoid complications between the installation of the various items of equipment. Advise other trades of openings required in their work for the subsequent move-in of large units of electrical equipment.

- E. Locate operating and control equipment properly to provide easy access, and arrange entire electrical work with adequate access for operation and maintenance.
- F. Where the method of installation is not certain, ask for details. Lack of details, not requested, will not be an excuse for improper installation, and any such work must be corrected at the contractors expense.
- G. Coordination Drawings: For locations where several elements of electrical or combined mechanical and electrical work must be sequenced and positioned with precision in order to fit into the available space, prepare coordination drawings showing the actual physical dimensions (at accurate scale, minimum 1/4") required for the installation. Prepare and submit coordination drawings prior to purchase-fabrication-installation of any of the elements involved in the coordination.
- H. All Bidders shall be responsible to insure that equipment selected, switchboards, panelboards, etc., fit in spaces selected, along with NEC compliance. If standard equipment does not fit, Contractor shall be required to utilize custom equipment as required.

1.05 DRAWINGS AND SPECIFICATIONS

- A. Contract Documents (Drawings and Specifications) are intended to convey the scope of work and indicate general arrangements of equipment, fixtures and piping, and approximate sizes and locations of equipment and outlets. Follow these documents in laying out the work, check all Drawings to become familiar with all conditions affecting the work, and verify spaces in which the work will be installed.
- B. The contract documents are diagrammatic in showing certain but not all, physical relationships which must be established within the electrical work. Its interface with other work including plumbing, fire protection and mechanical work, is the exclusive responsibility of the Contractor. The Drawings show approximate locations only of selected feeders, branch circuits, outlets, etc., except where specific routing or dimensions are indicated. The Architect/Engineer reserves the right to make reasonable changes in locations indicated before roughing-in without additional cost to the Owner.
- C. Because of the small scale of the Drawings, it is not possible to indicate all of the offsets, fittings, and accessories required. Contractor shall investigate the structural and finish conditions affecting Division 16 work and shall arrange such work accordingly, furnishing fittings, bends, junction boxes, pull boxes, access panels, and accessories required to meet such conditions.
- D. These Specifications, together with the accompanying Drawings, contemplate apparatus fully erected, and in satisfactory operating condition with the Contractor furnishing and installing everything that may be necessary to complete the job.

1.06 SUBMITTALS

- A. Refer to Section 01340 for Submittal Requirements. The following paragraphs are an extension of Section 01340.
- B. Review of shop drawings shall in no way modify the contract or relieve the Contractor from compliance with the contract.
- C. Names of manufacturers or catalog numbers are listed in the Specification in order to establish a standard for the type, general design and quality of the product required. Where "or equal" is indicated, other products similar in design and of equal quality and complying with the Drawings and Specifications will be considered for acceptance. See Section 01340 - Product Requirements.
- D. Any item not specified herein, but submitted as a substitute for the specified item, shall be submitted in accordance with Section 01340 - Product Requirements and accompanied by manufacturer's documentation stating/illustrating the following applicable information in addition to the specific information requested in other sections:
 - 1. Dimensions/weight.
 - 2. Electrical ratings-voltage, amperage, short circuit capability, etc.
 - 3. Construction - gauge of steel/aluminum, paint finish / application method, color, NEMA type, etc.
 - 4. Warranty.
 - 5. Local manufacturer's representative or nearest stocking distributor.
 - 6. Length of time the product has been available to the public.
 - 7. Any deviations.
- E. Shop Drawings:
 - 1. Listed below are shop drawings required for transmittal. Refer to Phasing Plan for scheduling of submittal. No time delays will be allowed for failure to be so informed.
 - a. Raceways

- b. Raceway and enclosure supports
 - c. Enclosures
 - d. Conductors
 - e. Conduit Layout Drawings w/ Dimensions
2. Further descriptions or information required with shop drawings shall be included with the description of materials specified herein as follows:
- a. In preparing shop drawings, establish lines and levels for the work specified and check the drawings to avoid interference with structural features, and the work of other trades. Immediately call to the attention of the Architect/Engineer in writing any interferences for clarification.
 - b. Detailed, dimensioned shop drawing for the installation of the conduits and conductors to be installed on the fixed piers and walkway. These shop drawings shall be new drawings prepared by the contractor and shall show all routing, locations where conduits/conductors are entering/exiting grade. All junction boxes shall have dimensioned locations.
3. Corrections or comments made on shop Drawings during the review do not relieve the Contractor from compliance with requirements of the contract documents. Shop Drawings will be checked for general conformance with the design concept of the project and general compliance with information given in the contract documents. Review of the shop Drawings shall not relieve the Contractor from responsibility for confirming and correlating all quantities and dimensions, coordinating work with that of all other trades, and performing work in a safe and satisfactory manner. Review of shop Drawings shall not permit any deviation from Drawings and Specifications. Shop Drawings must be accompanied by signed statement from contractor, stating that he has reviewed the submittal and checked it for compliance.
4. Contractor shall provide products as specified if submittals for review of materials are not received within thirty (30) days after award of the Contract.

1.07 PROTECTION OF APPARATUS

- A. At all times the Contractor shall take precautions necessary to protect his apparatus from damage. Failure on the part of the Contractor to comply with the above to the Architect/Engineer's satisfaction shall be sufficient cause for the rejection of the particular piece of apparatus in question.

1.08 PROJECT/SITE CONDITIONS

- A. Visit the site before bidding to become familiar with conditions under which the work will be performed.
- B. No additional compensation will be allowed for failure to be so informed.

1.09 CUTTING AND PATCHING

- A. Do all cutting, fitting, and all other work that may be required to make the several parts come together and fit. Cutting for equipment entry shall be under other Divisions. Do not endanger any work by cutting, digging, or otherwise, and do not cut or alter the work of any other Divisions, except with the consent of the Architect/Engineer. Cutting shall be done under the supervision of the Project Superintendent. Patching shall be performed under Division 1.
- B. Provide, properly located and sized, all required chases or openings, etc., required for the work or to conceal any of the work, in any part of the structure.
- C. It is the responsibility of this Division to coordinate with other responsible Divisions for required cutting and patching.

1.10 INSERTS AND THIMBLES – (NOT USED)

1.11 RECORD DRAWINGS

- A. Prepare Record Drawings in accordance with the requirements in Division 1.
- B. In addition to the requirements specified in Division 1, indicate the following installed conditions:
 - 1. Equipment locations (exposed and concealed), dimensioned from prominent construction lines.
 - 2. Approved substitutions, Contract Modifications, and actual equipment and materials installed.
 - 3. Contract Modification, actual equipment and materials installed.
 - 4. Complete As-Built Drawings of Division 16 work shown and not shown on the contract drawings in the new and existing facilities.
- C. Equipment Manuals:
 - 1. Before the date of substantial completion, Contractor shall furnish to the Architect/Engineer three (3) bound sets of descriptive, dimensional and parts

data on all major items of electrical equipment and material including those items listed above under "Shop Drawings:".

2. Each set of this literature shall be bound in a permanent type hard cover ring binder and shall be suitably indexed.
3. This submittal shall be accompanied by final Electrical Inspection Certificate from the authority having jurisdiction and Statement of Inspection from State Fire Marshal's Office.

1.12 WARRANTY/GUARANTEE

- A. Except where longer periods of warranty are specified, guarantee all labor and materials for a period of twelve (12) months from the date of substantial completion of the particular phase of the work. Repair all defective materials and work; replace with new materials and/or equipment, any material and/or equipment failing to give satisfactory service.
- B. During the period of guarantee, promptly correct any defects in equipment, materials or workmanship without cost to the Owner.
- C. Guarantee includes equipment capacity and performance ratings specified without excessive noise levels. Any deficiencies in equipment specified shall be promptly corrected.
- D. Contractor's warranty shall include an inspection of the system one (1) week before the end of the one (1) year warranty period. Replace or repair any items found to be defective at this time.

1.13 TESTS AND BALANCING

- A. At such times as the Engineer / Owner directs, conduct operating tests to demonstrate that the electrical systems are installed and will operate properly and in accordance with the requirements of this Specification. Tests shall be performed in the presence of the Owner's representative. Furnish instruments and personnel required for such tests.
- B. Perform tests to show Engineer / Owner that the power and lighting loads are equally divided among phases of feeders serving each piece of equipment and each panelboard, and record the results of such tests and turn over to the Architect/Engineer.
- C. Any work and materials tested and found varying from the requirements of the Drawings and Specifications shall be replaced without additional cost to the Owner.

- D. This section does not relieve the Contractor from testing equipment installed under this Division but not listed in this section. Contractor is required to test all equipment, feeders, etc., installed under this Division.

2.0 PRODUCTS

2.01 GENERAL

- A. Refer to DIVISION 1 sections for general requirements on products, materials and equipment. The provisions outlined below expand or modify the requirements as applicable to electrical work. Refer to other DIVISION 16 sections for additional requirements.
- B. Materials and equipment shall conform in all respects to the requirements set forth in these Specifications and the accompanying Drawings.
- C. Provide products which are compatible with other products of the electrical work, and with other work requiring interface with the electrical work, including electrical connections and control devices. For exposed electrical work, coordinate colors and finishes with the Architect/Engineer and as referenced elsewhere in the documents. Determine in advance of purchase that equipment and materials proposed for installation will fit into the confines indicated, leaving adequate clearance as required by applicable codes, and for adjustment, repair, or replacement.

2.02 MANUFACTURERS' NAMEPLATES

Each major component of the equipment shall have the manufacturer's name, address, model number, and rating on a plate securely affixed in a conspicuous place. The nameplate of a distributing agent will not be acceptable. NEMA Code ratings, or other data which are die-stamped into the surface of the equipment shall be stamped in an easily visible location.

3.0 EXECUTION

3.01 GENERAL

- A. Visit the project site before bidding to determine existing conditions and assume all responsibility and bear all expenses in allowing for these conditions in the bid.
- B. Obtain all necessary permits, pay all legal fees and charges, pay all utility charges, and comply with all state and local building codes and safety laws, ordinances and regulations relating to the building and public health and safety. Refer to Division 1

for utility construction demolition, installation, and service connection charge allowances.

- C. No work shall be concealed until approved by the local inspector and all local regulations are adhered to.
- D. Upon completion, a certificate of approval from the appropriate regulatory agency shall be furnished to the Architect/Engineer.
- E. Cooperate with other trades in installing work in order that there will be no conflict of space required by conduit, piping, outlets, etc. If an interference develops, it shall be referred to the Architect/Engineer for a decision as to which equipment, piping, conduit, etc, is to be relocated. Such relocations shall be made without additional cost to the Owner.
- F. Study all sections of the Specifications and Drawings. Notify Architect/Engineer of conflict between Drawings and Specifications before bidding. The Architect/Engineer's decision will govern.
- G. Electrical Drawings are diagrammatic except where dimensioned. Do not scale. Follow manufacturer's certified shop drawings for accuracy. Consult Architect / Engineer in cases of doubt or conflict. Unless noted as fixed, dimensions are based on the product of one (1) manufacturer. Verify dimensions with certified shop Drawings of the materials actually approved and purchased.

3.02 TEMPORARY WIRING, LIGHTING AND POWER AT THE SITE

- A. Furnish and install provisions for temporary electrical service and construction light and power during the construction period conforming to the contract documents, all local code and State labor law requirements. Temporary light and power provisions to be included shall be as hereinafter specified and as required in Section - Temporary Facilities and Services.
- A. Arrange for temporary service with the owner or Utility Company.
- B. Furnish, install, and maintain all temporary service equipment as required until permanent service is installed switch-over of temporary systems on the permanent service when latter is ready for same.
- C. Furnish, install, maintain, and switch on and off on all regular work days a complete temporary light system, for the building while under construction.
- D. Provide any and/or all relocations of temporary electric facilities as necessary to clear the permanent installations of all trades.

- E. Contractor shall furnish and connect a generator of adequate kW capacity to operate the raw water intake electrical service for the duration of any scheduled outages with the owner. Contractor shall submit an electrical construction phasing plan detailing the scheduled outages and new construction sequence for owner approval prior to construction. Contractor shall install the complete new raceway system and conductors in preparation of a scheduled outage prior to removing the existing electrical service.

3.03 WIRING FOR EQUIPMENT BY OTHERS

- A. Electrical service for all equipment furnished under this Specification and/or indicated on the Drawings shall be roughed-in and connected under this Section. It is the responsibility of the Contractor to obtain correct roughing-in dimensions and requirements for this equipment.

3.04 MECHANICAL EQUIPMENT (NOT USED)

3.05 WORKMANSHIP

- A. Install all materials and electrical components of the work in accordance with instructions of manufacturer following the best modern construction practices and conforming with the Contract Documents. Workmanship shall be first class, in both function and appearance, whether finally concealed or exposed and shall be performed by experienced workmen skilled in the type of work. As practicable, the lines of all components of the system shall be perpendicular or parallel. In general, workmanship shall conform to guidelines set forth in N.E.C.A. manuals.

3.06 CLEANING UP

- A. Remove once per week and at the completion of the work all empty cartons, scrap wire, raceways, rubbish, etc., accumulated on the project as a result of work performed.
- B. Remove all marks, stains, fingerprints, bugs, dust and other foreign material from all electrical components. Refinish damaged surfaces and restore original finish to the satisfaction of the Architect/Engineer.

3.07 SAFETY

- A. It shall be the Contractor's responsibility to do all things necessary in the pursuit of the installation or testing to provide safe conditions in which to work.

3.08 MOUNTING HEIGHTS (NOT USED)

- END OF SECTION -

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SECTION 16060 - GROUNDING AND BONDING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Grounding systems and equipment.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Field quality-control reports.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

PART 2 - PRODUCTS

2.1 CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
 - 1. Solid Conductors: ASTM B 3.
 - 2. Stranded Conductors: ASTM B 8.
 - 3. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.

2.2 CONNECTORS

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.

PART 3 - EXECUTION

3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 10 AWG and smaller, and stranded conductors for No. 8 AWG and larger unless otherwise indicated.
- B. Conductor Terminations and Connections:
 - 1. Equipment Grounding Conductor Terminations: Bolted connectors.

3.2 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:
 - 1. Feeders circuits.

3.3 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
 - 1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
 - 2. Use exothermic-welded connectors for outdoor locations.

3.4 LABELING

- A. Comply with requirements in Division 16 Section "Electrical Identification" Article for instruction signs. The label or its text shall be green.
 - 1. Label Text: "If this connector or cable is loose or if it must be removed for any reason, notify the facility manager."

3.5 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections and prepare test reports:

1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
 2. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.
 3. Test completed grounding system at each location where a maximum ground-resistance level is specified, at service disconnect enclosure grounding terminal, and at ground test wells. Make tests at ground rods before any conductors are connected.
- B. Report measured ground resistances that exceed the following values:
1. Power and Lighting Equipment or System with Capacity of 500 kVA and Less:
25 ohms.
- C. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify Architect promptly and include recommendations to reduce ground resistance.

- END OF SECTION -

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SECTION 16073 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Hangers and supports for electrical equipment and systems.
2. Construction requirements for concrete bases.

1.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design supports for multiple raceways, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
- C. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
- D. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five

1.3 SUBMITTALS

- A. Product Data: For steel slotted support systems.
- B. Shop Drawings: Show fabrication and installation details and include calculations for the following:
 1. Trapeze hangers. Include Product Data for components.
 2. Steel slotted channel systems. Include Product Data for components.
 3. Equipment supports.
- C. Welding certificates.

1.4 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allied Tube & Conduit.
 - b. Cooper B-Line, Inc.; a division of Cooper Industries.
 - c. ERICO International Corporation.
 - d. GS Metals Corp.
 - e. Thomas & Betts Corporation.
 - f. Unistrut; Tyco International, Ltd.
 - g. Wesanco, Inc.
 - h. Approved Equal
 - 3. All metallic supports shall be 316 Marine Grade stainless steel.
 - 4. Channel Dimensions: Selected for applicable load criteria.
- B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- C. Conduit and Cable Support Devices: 316 marine grade stainless steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to structural surfaces include the following:
 - 1. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
 - 2. Through Bolts: 316 marine grade stainless steel structural type, hex head, and high strength. Comply with ASTM A 325.
 - 3. Hanger Rods: 316 marine grade threaded stainless steel.

2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

- B. Materials: 316 marine grade stainless steel or hot dipped galvanized steel, ¼” minimum thickness.

2.3 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for RMC as required by NFPA 70. Minimum rod size shall be 3/8 inch in diameter.
- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with 316 marine grade stainless steel or fiberglass strut, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
 - 1. Secure raceways to these supports with stainless steel single-bolt conduit clamps using spring friction action for retention in support channel.

2.4 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).
- C. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to structural elements by the following methods unless otherwise indicated by code:
 - 1. To Steel: 316 stainless steel bolts with lock washers and nuts.
 - 2. To Light Steel: 316 stainless steel sheet metal screws.

- END OF SECTION -

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SECTION 16075 - ELECTRICAL IDENTIFICATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Identification for raceways.
2. Identification of power and control cables.
3. Identification for conductors.
4. Miscellaneous identification products.

1.2 SUBMITTALS

- ##### A. Product Data: For each electrical identification product indicated.

1.3 QUALITY ASSURANCE

- ##### A. Comply with ANSI A13.1.
- ##### B. Comply with NFPA 70.
- ##### C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- ##### D. Comply with ANSI Z535.4 for safety signs and labels.
- ##### E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

PART 2 - PRODUCTS

2.1 CONDUCTOR IDENTIFICATION MATERIALS

- ##### A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.
- ##### B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

2.2 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Comply with requirements in painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Stainless-steel machine screws with nuts and flat and lock washers.

2.3 WARNING LABELS AND SIGNS

- A. Comply with NFPA 70, NFPA 70E and 29 CFR 1910.145.
- B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.
- C. Baked-Enamel Warning Signs:
 - 1. Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application.
 - 2. 1/4-inch (6.4-mm) grommets in corners for mounting.
 - 3. Nominal size, 7 by 10 inches (180 by 250 mm).
- D. Metal-Backed, Butyrate Warning Signs:
 - 1. Weather-resistant, nonfading, preprinted, cellulose-acetate butyrate signs with 0.0396-inch (1-mm) galvanized-steel backing; and with colors, legend, and size required for application.
 - 2. 1/4-inch (6.4-mm) grommets in corners for mounting.
 - 3. Nominal size, 10 by 14 inches (250 by 360 mm).
- E. Warning label and sign shall include, but are not limited to, the following legends:
 - 1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."
 - 2. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES (915 MM)." or "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 48 INCHES (915 MM)."
 - 3. Comply with NFPA 70 and NFPA 70E arc flash label requirements.

2.4 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Comply with requirements in Division 9 painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- B. Apply identification devices to surfaces that require finish after completing finish work.
- C. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
- D. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
- E. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at ends, in each box, and handhole.

3.2 IDENTIFICATION SCHEDULE

- A. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.
 - 1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded service, feeder and branch-circuit conductors.
 - a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit.
 - b. Colors for 240 V and 208/120-V Circuits:
 - 1) Phase A: Black.
 - 2) Phase B: Red.
 - 3) Phase C: Blue.

- c. Colors for 480/277-V Circuits:
 - 1) Phase A: Brown.
 - 2) Phase B: Orange.
 - 3) Phase C: Yellow.
 - d. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.
- B. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.

- END OF SECTION -

SECTION 16120 - CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Wires and cables rated 2000 V and less.
2. Connectors, splices, and terminations rated 600 V and less.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Field quality-control test reports.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Copper Conductors: Comply with NEMA WC 70.
- B. Conductor Insulation: Comply with NEMA WC 70 for Types THWN, XHHW. EPDM for type W.

2.2 CONNECTORS AND SPLICES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. IlSCO type PDSS
 2. Elastimold type USB-S

- B. Description: Factory-fabricated submersible set screw connectors, number of ports as required, four port minimum, for wire size and ampacity rating required.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

3.2 CONDUCTOR INSULATION APPLICATIONS AND WIRING METHODS

- A. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type RHH/RHW, single conductors in raceway.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Install all conductors except multi-conductor power cable in raceway.
- B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- D. Identify and color-code conductors and cables according to Division 16 Section "Electrical Identification."
- E. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.
- F. UNDERGROUND CONDUCTOR SPLICES ARE NOT ALLOWED. The contractor shall make every effort to install a continuous conductor length free of any splices. Contractor is expected to pull the conductors via the pullboxes and pull cable slack as needed in order to install the conductors in a continuous length. Conductors shall not be spliced without the review and written approval of the engineer/owner. Subject to approval, any required above ground conductor splices shall be made with submersible connectors that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
 - 1. Use oxide inhibitor in each splice and tap conductor.
- G. Wiring at junction boxes: Install conductor with at least 12 inches (300 mm) of slack.

3.4 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
- B. Tests and Inspections:
 - 1. After installing conductors and cables and before electrical circuitry has been energized, test all conductors for compliance with requirements.
 - 2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
- C. Test Reports: Prepare a written report to record the following:
 - 1. Test procedures used.
 - 2. Test results that comply with requirements.
 - 3. Test results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- D. Remove and replace malfunctioning units and retest as specified above.

- END OF SECTION -

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SECTION 16130 - RACEWAYS AND BOXES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.

1.2 SUBMITTALS

- A. Product Data: For raceways, and junction boxes.
- B. Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, details, and attachments to other work.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND TUBING

- A. Rigid Steel Conduit: ANSI C80.1.
- B. Fittings for Conduit: NEMA FB 1; listed for type and size raceway with which used, and for application and environment in which installed.

2.2 NONMETALLIC CONDUIT

- A. Heavy wall fiberglass conduits and fittings, UL Listed, conform to NFPA 130.

2.3 BOXES, ENCLOSURES, AND CABINETS

- A. NEMA 4X, stainless steel.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below, unless otherwise indicated:
 - 1. Exposed Conduit: Rigid galvanized steel conduit RGS.
 - 2. All underground and exposed raceway from in grade pullbox to elevated walkway structure shall be extra heavy wall fiberglass (bullet resistant).
 - 3. Suspended Junction boxes on fixed pier: 316 marine grade stainless steel, NEMA 4X.
- B. Minimum Raceway Size: 3/4-inch trade size.
- C. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid Steel Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.

3.2 INSTALLATION

- A. Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Article are stricter.
- B. Complete raceway installation before starting conductor installation.
- C. Arrange stub-ups so curved portions of bends are not visible above the finished grade.
- D. Install no more than the equivalent of three 90-degree bends in any conduit run except for communications conduits, for which fewer bends are allowed.
- E. Install pull lines in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull line.
- F. Methods of Installation:
 - 1. Cut conduits straight, properly ream, and cut threads for heavy wall conduit deep and clean.
 - 2. Field-bend conduit with benders designed for purpose so as not to distort nor vary internal diameter.
 - 3. Fasten conduit terminations in sheet metal enclosures by 2 locknuts, and terminate with grounding bushing. Install locknuts inside and outside enclosure.
 - 4. Install conduits as not to damage or run through structural members.
 - 5. Test every conduit run installed, with ball mandrel. Clear and restore/repair any conduit which rejects ball mandrel.
 - 6. Provide nylon pull cord in every conduit installed where conductors are not installed.

7. Label all junction boxes (larger than 6" X 6"); pull boxes, wireways with engraved plastic nameplates.
8. Install underground conduits minimum of 36" below finished grade. Use 36" long radius fittings only.
9. Exposed Conduits:
 - a. Install exposed conduits and extensions from concealed conduit systems neatly, parallel with, or at right angles to walls of buildings.
10. Additional Fiberglass Conduit Requirements
 - a. Make joints in accordance with recommendations of manufacturer with two part epoxy resin adhesive system. Use cartridge adhesive gun system utilizing mixing applicator tips. Use proper adhesive for ambient temperature at time of installation.
 - b. Install Fiberglass conduits in accordance with manufacturer's instructions, the NEC, and in compliance with local utility practices.
 - c. All fiberglass conduits entering handholes, communication and power, shall terminate in a bell end fitting installed flush with manhole/handhole wall or floor.
 - d. All fiberglass conduits entering boxes, enclosures, or equipment, shall use proper adapters for the application.
11. Conduit Fittings:
 - a. Construct locknuts for securing conduit to metal enclosure with sharp edge for digging into metal, and ridged outside circumference for proper fastening.
 - b. Bushings for terminating conduits smaller than 1-1/4" are to have flared bottom and ribbed sides, with smooth upper edges to prevent injury to cable insulation.
 - c. Install insulated type grounding bushings for terminating conduits 1 1/4" and larger.
 - d. Provide bushings or end bells as required at ends of all conduits.
 - e. All exterior conduit terminations should end with a Meyers hub and a grounding bushing.

- END OF SECTION -

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