SEWERAGE AND WATER BOARD OF NEW ORLEANS



CONTRACT NO. 30267 SOLICITATION NO. 2025-SWB-22

RESTORATION OF GRAVITY FLOW SANITARY SEWERS BY EXCAVATION AND REPLACEMENT FROM MANHOLE TO MANHOLE, CIPP LINING FROM MANHOLE TO MANHOLE, CIPP LINING OF SERVICE LATERALS AND POINT REPAIRS AT VARIOUS SITES THROUGHOUT THE CITY OF NEW ORLEANS

PROPOSALS DUE ON

May 2, 2025 AT 11:00 A.M., CENTRAL TIME

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

- 1.1. Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
 - 1.1.1. *Issuing Office*—The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered: Sewerage and Water Board of New Orleans, 625 St. Joseph Street, Procurement Department Room 133, New Orleans, Louisiana 70165.

COPIES OF BIDDING DOCUMENTS

2.1. Complete sets of the Bidding Documents are available in electronic form on the Sewerage & Water Board of New Orleans website:

https://www2.swbno.org/business_bidspecifications.asp

https://wwwcfprd.doa.louisiana.gov/OSP/LaPAC/dspBid.cfm?search=department&term=181

- 2.2. Complete sets of Bidding Documents shall be used in preparing Bids. Neither Owner nor Engineer assumes responsibility for errors or misinterpretations resulting from use of incomplete sets of Bidding Documents.
- 2.3. Drawings included in the Bidding Documents are electronic .pdf files generated from electronic drawing files. Any reduction from actual size is indicated by a note or scale bar on Drawing.
- 2.4. Owner and Engineer, in making Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS

- 3.1. In order to perform public work, Bidder and its Subcontractors, prior to award of Contract or as otherwise required by the jurisdiction, shall hold or obtain such licenses as required by State Statutes, and federal and local Laws and Regulations.
- 3.2. Bidder is advised to carefully review those portions of the Bid Form requiring representations and certifications.
- 4. EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE
- 4.1. Subsurface and Physical Conditions:

- 4.1.1. The Supplementary Conditions identify:
 - 4.1.1.1. Those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site.
 - 4.1.1.2. Those drawings known to Owner of physical conditions relating to existing surface and subsurface structures at the Site.
- 4.1.2. Copies of reports and drawings referenced will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings. Costs associated with making available copies of reports and drawings shall be borne by Bidder.
- 4.2. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner or others.
- 4.3. Hazardous Environmental Condition:
 - 4.3.1. The Supplementary Conditions identify reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site.
 - 4.3.2. Copies of reports and drawings referenced will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings. Costs associated with making available copies of reports and drawings shall be borne by Bidder.
- 4.4. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 4.02 through 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental

Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 4.06 of the General Conditions.

- 4.5. On request, Owner will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Owner deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.
- 4.6. Related Work at Site: Reference is made to the General Requirements for identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request Owner will provide to each Bidder for examination, access to Contract Documents (other than portions thereof related to price) for such other work.
- 4.7. Safety: Paragraph 6.13.C of the General Conditions indicates that if an Owner safety program exists, it will be noted in the Supplementary Conditions.
- 4.8. It is responsibility of each Bidder before submitting a Bid to:
 - 4.8.1. Examine and carefully study the Bidding Documents, other related data identified in the Bidding Documents, and any Addenda.
 - 4.8.2. Visit the Site to become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - 4.8.3. Become familiar with to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - 4.8.4. Carefully study all information provided and referenced in plans and specifications.
 - 4.8.5. Consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents.
 - 4.8.6. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) Bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

- 4.8.7. Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- 4.8.8. Promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in Bidding Documents and confirm that written resolution thereof by Engineer is acceptable to Bidder.
- 4.8.9. Determine Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance of the Work.
- 4.9. Submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this article; that without exception the Bid is premised upon performing and furnishing the Work required by Bidding Documents and applying specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by Bidding Documents; that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder; and that Bidding Documents are generally sufficient to indicate and convey understanding of terms and conditions for performing and furnishing the Work.
- 5. SPECIAL PRODUCT REQUIREMENTS
- 5.1. Bidder's attention is directed to the Supplementary Conditions, Paragraph 6.03.
- 6. PREBID CONFERENCE

A **NON-MANDATORY** pre-bid conference will be held on **April 9, 2025, at 11:00 a.m.** Central Time at the Sewerage and Water Board of New Orleans, Purchasing Conference Room RM 131, located at 625 St Joseph St., New Orleans, Louisiana, 70165 or if you are unable to attend this in-person meeting, you can also join via teleconference call:

Microsoft Teams

Join the meeting now

Meeting ID: 293 470 832 965

Passcode: r9WK7RP9 **Dial in by phone**

+1 504-224-8698,,53971815# United States, New Orleans

Phone conference ID: 539 718 15#

- 6.1. Representatives of Owner and Engineer will be present to discuss the Project. Procurement will transmit to prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.
- 7. SITE AND OTHER AREAS

7.1. The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner, unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

8. INTERPRETATIONS AND ADDENDA

- 8.1. All questions about the meaning or intent of the Bidding Documents are to be submitted to the Sewerage & Water Board Procurement Department. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda sent to all parties recorded by the office issuing documents as having received the Bidding Documents. Questions received after April 11, 2025 at 5:00 p.m. may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 8.2. Addenda may also be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.
- 8.3. Addenda issued in response to questions will be issued no later than 72 hours prior to bid opening.

9. BID SECURITY

- 9.1. Bid shall be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price and in the form of a certified check, bank money order, or a Bid bond (on the attached form), issued by a surety meeting the requirements of Paragraph 5.01 and Paragraph 5.02 of the General Conditions.
- 9.2. Upon Notice of Award of the Contract, the Bid security of all bidders, other than the lowest two (2) formal bidders will be returned upon request. The return of the Bid security to whom the Contract is awarded is conditioned upon the successful bidder furnishing the insurance required in the specifications and appearance before the Notary for the Sewerage and Water Board of New Orleans within ten (10) consecutive calendar days after notice by the Executive Director or designee of the award of the contract and executing the contract and furnishing bond for the faithful fulfillment thereof according to the attached specifications. The Bid security of the next lowest bidder will be returned as soon as the successful bidder has executed the Contract and furnished bond upon request. If all bid proposals are rejected, all Bid security will be returned immediately upon request.
- 9.3. Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within 7 days after Bid opening upon request.

10. CONTRACT TIMES

10.1. The number of days within which, or the dates by which, Milestones are to be achieved and the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

11. LIQUIDATED DAMAGES

11.1. Provisions for liquidated damages, if any, are set forth in the Agreement.

12. SUBSTITUTE AND "OR-EQUAL" ITEMS

12.1. The Contract, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement.

13. WAGE RATES

- 13.1. The Work under these Bidding Documents is to be paid for by public funds; therefore, minimum prevailing wage rates published by the Secretary of the U.S. Department of Labor (see appended rate tables). Refer to Attachment #5 of the Supplementary Conditions for more information.
- 13.2. The successful bidder is to make available to the Board, complete records in connection with payment of employees during the term of the job in order to permit the Internal Audit Division to check as to adherence to the wage scale presently in effect in accordance with U.S. Government standards.

14. PREPARATION OF BID

- 14.1. Bidders shall prepare bid document to include Louisiana Uniform Public Work Bid Form, Bid Security or Bid Bond; Acknowledgment of Addenda; Base Bid; Alternates (if applicable); Signature of Bidder; Name, Title, and Address of Bidder; Name of Firm or Joint Venture; Corporate Resolution or written evidence of the authority of the person signing the bid; and Louisiana Contractors License Number.
- 14.2. All blanks on the Bid Form shall be completed by typing or printing with ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each Bid item, unit price item, and alternate listed therein.
- 14.3. A Bid by a corporation shall be executed in the corporate name by the president or a vice president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

- 14.4. A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.
- 14.5. A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 14.6. A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 14.7. All names shall be typed or printed in ink below the signatures.
- 14.8. The Bid shall contain an acknowledgement of receipt of all Addenda; the numbers of which shall be filled in on the Bid Form.
- 14.9. Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 14.10. The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number and class, if applicable, shall also be shown on the Bid Form.
- 15. BASIS OF BID; COMPARISON OF BIDS
- 15.1. Total Base Bid:
 - 15.1.1. Bidders shall submit on a lump sum basis as set forth on the Louisiana Uniform Public Work Bid Form.
 - 15.1.2. Bidders shall include a separate price for each alternate described in the Bidding Documents as provided for in the Louisiana Uniform Public Work Bid Form. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate. In the comparison of Bids, alternates will be applied in the same order as listed in the Bid Form.

15.2. Unit Price:

- 15.2.1. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Unit Price Bid Table.
- 15.2.2. The total of all prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.

15.2.3. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

15.3. Alternates:

- 15.3.1. Alternates requiring pricing in the Bid Form are described in Section 01 11 01, Summary of Work, and in the Bid Form, if applicable.
- 15.3.2. Indicate in Bid Form the amount to be added or subtracted from the base Bid for alternates described.
- 15.3.3. Include cost of all related work, including modifying surrounding work to integrate the Work of each alternate.
- 15.3.4. Alternates listed on Bid Form will be reviewed and accepted or rejected at Owner's option. Accepted alternates will be identified in the Agreement if applicable.

16. SUBMISSION OF BID

- 16.1. The Bidders are to complete and submit the following documents at bid submission:
 - 16.1.1. Louisiana Uniform Public Work Bid Form is to be completed
 - 16.1.2. Bid Security or Bid Bond.
 - 16.1.3. Corporate Resolution or Written Evidence of Authority
- 16.2. The two (2) lowest bidders will have three (3) working days following the bid opening to submit the following:
 - 16.2.1. Additional Requirements, Bidder Declaration, Guarantees, and Emergency Procedures Document
 - 16.2.2. Attestation Affidavit Form
 - 16.2.3. Voluntary Extension
 - 16.2.4. Affidavit of Non-Collusion
 - 16.2.5. Conflict of Interest Disclosure Affidavit
 - 16.2.6. Convicted Felon Affidavit
 - 16.2.7. Non-Solicitation Affidavit

16.2.8. EDBP Summary Sheet and Acknowledgment Form

16.3. A Bid shall be submitted no later than the date and time prescribed, and at the place indicated in the Invitation to Bid. Enclose Bid in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), name and address of Bidder, and accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED.

Hard Copy Submission:

Signed hardcopy of the bid in a sealed envelope

Mark the front envelope with the following: Solicitation # 2025-SWB-22 Company Name Company Address Company Contact Name, Phone Number, and Email Address Contractor's License Number

Address envelope to: Sewerage and Water Board of New Orleans Attn: Connor Metcalf 625 St. Joseph St. Rm 133 New Orleans, LA 70165

Fax and email submission will not be accepted.

Mail or courier specifications:

The Bidder remains responsible for ensuring that the bid is delivered prior to the submission deadline with a proof of delivery. Failure to meet the submission deadline, irrespective of the mode of delivery, shall result in the rejection of the bid.

- Bid documents should be contained in a sealed envelope and be placed in the shipping envelope or box. If the mailed bid is not contained in a separate sealed envelope, the bidder takes the risk that the envelope may be inadvertently opened and the information compromised.
- Please add the Procurement Analyst's name in the Attention Line of the shipping label to ensure proper delivery.
- 16.4. In accordance with LRS 37:2163, Bidders are required to certify they hold an active Contractor's license and indicate license number on Bid envelope. Bid envelopes received with no Contractor license number will not be opened and will automatically be rejected and considered nonresponsive.

17. OPENING OF BIDS

Bids will be opened on May 2, 2025 at 11:30 a.m. at Sewerage and Water Board of New Orleans, 625 St. Joseph Street, Purchasing Conference Room 131, New Orleans, Louisiana and unless obviously nonresponsive, read aloud publicly. The amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids. The bid opening will also be available via teleconference:

Microsoft Teams

Join the meeting now

Meeting ID: 245 661 479 813

Passcode: F8dc7o2h

Dial in by phone

+1 504-224-8698,,802208896# United States, New Orleans

Phone conference ID: 802 208 896#

18. BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.1. All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

19. EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.1. Pursuant to Louisiana Statute 38:2225, a resident Bidder shall be allowed a preference over a nonresident Bidder from a state which gives or requires a preference to Bidders from that state. The preference shall be equal to the preference given or required by the state of the nonresident Bidder.
- 19.2. Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.
- 19.3. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

20. NOTARIAL FEE.

20.1. The Contract and Bond shall be signed in the City of New Orleans, before the Notary for the Sewerage and Water Board of New Orleans, by the Contractor in person or by a duly authorized representative. The notarial fee for the execution of the contract shall be paid by the Contractor in accordance with the Notarial Fee Schedule below. The

Fee Schedule is subject to change, and Contractor is responsible for any deviations from this Fee Schedule. Contractor shall also be responsible for payment of all recordation costs and photocopying at the rate of \$0.50 per page. All affidavits of acceptance or substantial completion are \$70.00 plus actual recordation costs.

NOTARIAL FEE SCHEDULE

Notarial work for all Sewerage and Water Board of New Orleans construction contracts, requiring to be notarized:

Contract Value	<u>Fee</u>
Under \$1,000.00	\$227.00
\$1,000.00 to \$49,999.99	\$423.00
\$50,000.00 to \$499,999.99	\$1,073.00
\$500,000.00 to \$999,999.99	\$2,304.00
\$1,000,000.00 or over	\$4,608.00

21. CONTRACT SECURITY AND INSURANCE

21.1. Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to bonds and insurance. When Successful Bidder delivers executed Agreement to Owner, it shall be accompanied by such bonds.

22. SIGNING OF AGREEMENT

- 22.1. The final award of the contract will be made at the subsequent Board meeting. All prices bid must be held firm for 120 days or until final award of contract by the Board.
- 22.2. After submittal of required Insurance and Bonds, in form acceptable to the Sewerage and Water Board of New Orleans, the selected Bidder will be authorized by the Executive Director of the Board to appear before the Notary to sign the contract within ten (10) consecutive calendar days from the date of the notice.

23. SALES AND USE TAXES

23.1. Applicable state and local sales and use taxes for purchase of materials and supplies furnished under this contract shall be paid by the Contractor. Such taxes shall be included in the lump sum bid for the work of this contract. The board shall be relieved of any obligation to pay these taxes.

24. RETAINAGE

24.1. Provisions concerning retainage and Contractor's rights to deposit securities in lieu of retainage, if applicable, are set forth in the Agreement.

25. BID PROTESTS

25.1. Any formal protest which is to be made by an aggrieved Proposer must be submitted in writing to the Procurement Director, Cashanna K. Moses at cmoses@swbno.org according to Sewerage and Water Board of New Orleans Policy 83(R): Procedural Rules for Bid Appeals.

26. PUBLIC RECORDS REQUESTS

26.1. To request a public record for the proposal documents, please submit to the following website: https://swbno.nextrequest.com/

END OF SECTION

LOUISIANA UNIFORM PUBLIC BID FORM

TO: Sewerage and Water Board of New Orleans Purchasing Department, Room 133 625 St. Joseph St. New Orleans, LA 70165 BID FOR: Contract 30267-Restoration of Gravity
Flow Sanitary Sewer Mains and
Replacement from Manhole to Manhole
throughout the City of New Orleans

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:
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:
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:
Alternate No. 2 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:
Alternate No. 3 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:
NAME OF BIDDER:ADDRESS OF BIDDER:
LOUISIANA CONTRACTOR'S LICENSE NUMBER:
NAME OF AUTHORIZED SIGNATORY OF BIDDER: TITLE OF AUTHORIZED SIGNATORY OF BIDDER:
SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: DATE:

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

- * The <u>Unit Price Form</u> shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.
- ** A CORPORATE RESOLUTION OR WRITTEN EVIDENCE of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM

UNIT PRICE FORM

TO: Sewerage and Water Board of New Orleans **Purchasing Department RM 133** 625 St Joseph New Orleans, LA 70165

BID FOR: Contract 30267 Restoration of Gravity Flow Sanitary Sewer

Mains and Replacement From Manhole to Manhole Throughout The City of New Orleans

UNIT PRICES: This form shall be used for a	ny and all work required by the Biddin	g Documents and described as unit prices.	Amounts shall be stated in figures and only in figures.

DESCRIPTION:	X Base Bid or A	lt.# Restore 8"-10" Mair	n(Manhole to Manhole) By Excavation And Replacement (0' to 9' Depth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
1	500	LF		
DESCRIPTION:	X Base Bid or A	lt.#Restore 8"-10" M	lain(Point Repair) By Excavation And Replacement (0' to	5' Depth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
2	5	EA		
DESCRIPTION:	X Base Bid or A	lt.# Restore 8"-10" Mair	n Beyond Point Repair (0' to 5' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
3	5	LF		
DESCRIPTION:	X Base Bid or A	lt.# Restore 8"-10" Mai	n(Point Repair) By Excavation And Replacement (5'-7' De	pth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
4	3	EA		
DESCRIPTION:	X Base Bid or A	lt.# Restore 8"-10" Mair	n Beyond Point Repair (5'-7' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
5	3	LF		
DEGCRIPTION.	W.D. Did. A	1. // D. (OII 40II M :	(D: (D :) D E	4.)
DESCRIPTION:			n(Point Repair) By Excavation And Replacement (7'-9' De	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
6	3	EA		
DESCRIPTION:	X Base Bid or A	lt.# Restore 8"-10" Mair	n Beyond Point Repair (7'-9' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
7	5	LF		

DESCRIPTION:	X Base Bid or A	.lt.# Restore 8"-10" Maii	n(Manhole to Manhole) By Excavation And Replacement	(9'-13' Depth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
8	500	LF		
DESCRIPTION:	X Base Bid or A	.lt.# Restore 8"-10" I	Main(Point Repair) By Excavation And Replacement (9'-1	1' Depth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
9	3	EA		
DESCRIPTION:	X Base Bid or A	.lt.# Restore 8"-10" Maii	n Beyond Point Repair (9'-11' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
10	3	LF		
DESCRIPTION:	X Base Bid or A	.lt.# Restore 8"-10" I	Main(Manhole to Manhole) By Excavation And Replacement	ent (13'-17' Depth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
11	300	LF		
DEG OD IDET OF	Two but	1. // D. / OII 40II 14 :	(D.: 1.D.: : :) D. F	5 (1)
DESCRIPTION:	X Base Bid or A		n(Point Repair) By Excavation And Replacement (11'-15'	. ,
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
12	3	EA		
DESCRIPTION:	X Base Bid or A	.lt.# Restore 8"-10" Maii	n Beyond Point Repair (11'-15' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
13	3	LF	2000 00002	(g.mmi) mine emicros
DESCRIPTION:	X Base Bid or A	.lt.# Restore 8"-10" Maii	n(Point Repair) By Excavation And Replacement (>15' De	epth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
14	3	EA		
		1t # Postoro 8" 10" Mai	n Beyond Point Repair (>15' Depth)	
DESCRIPTION:	X Base Bid or A	III.# Nestore 6 -10 Ivian	. 25) 5.14 · 5111 · 15 pain (15 25pain)	
DESCRIPTION: REF. NO.	X Base Bid or A QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)

DESCRIPTION:	X Base Bid or Alt.# Restore	12"-15" Main(Manhole to Manhole) By Excavation And Re	eplacement (5'-9' Depth)
REF. NO.	QUANTITY: UNIT OF ME.	ASURE: UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
16	100 LF		
DESCRIPTION:		12"-15" Main(Point Repair) By Excavation And Replacem	nent (7'-9' Depth)
REF. NO.	QUANTITY: UNIT OF ME.	ASURE: UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
17	5 EA		
DECORIDETION	VD Dil Alui Destere	40ll 45ll Main Davis and Daint Damain (7) Of Davith	
DESCRIPTION:		12"-15" Main Beyond Point Repair (7'-9' Depth)	INTERPLOE EVERYGION (O. C. C. H. D.)
REF. NO.	QUANTITY: UNIT OF ME.	ASURE: UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
18	5 LF		
DESCRIPTION:	X Base Bid or Alt.# Restore	12"-15" Main(Manhole to Manhole) By Excavation And Re	eplacement (9'-13' Depth)
REF. NO.	QUANTITY: UNIT OF ME.		UNIT PRICE EXTENSION (Quantity times Unit Price)
19	50 LF		
	1		
DESCRIPTION:	X Base Bid or Alt.# Restore	12"-15" Main(Point Repair) By Excavation And Replacem	nent (9'-11' Depth)
REF. NO.	QUANTITY: UNIT OF ME.	ASURE: UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
20	2 EA		
DESCRIPTION:	X Base Bid or Alt.# Restore	12"-15" Main Beyond Point Repair (9'-11' Depth)	
REF. NO.	QUANTITY: UNIT OF ME.	ASURE: UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
21	2 LF		
DESCRIPTION:	X Base Bid or Alt.# Restore	12"-15" Main(Manhole to Manhole) By Excavation And Re	eplacement (13'-17' Depth)
REF. NO.	QUANTITY: UNIT OF ME.	ASURE: UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
22	50 LF		
DESCRIPTION:	X Base Bid or Alt.# Restore	12"-15" Main(Point Repair) By Excavation And Replacem	nent (11'-15' Depth)
REF. NO.	QUANTITY: UNIT OF ME.	ASURE: UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
23	5 EA		
L			
DESCRIPTION:	X Base Bid or Alt.# Restore	12"-15" Main Beyond Point Repair (11'-15' Depth)	
DESCRIPTION: REF. NO.	X Base Bid or Alt.# Restore QUANTITY: UNIT OF ME.		UNIT PRICE EXTENSION (Quantity times Unit Price)

DESCRIPTION:	X Base Bid or Alt.# Restore 12"-1	" Main(Point Repair) By Excavation And Replacement (>1	5' Depth)
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
25	3 EA		
DESCRIPTION:	X Base Bid or Alt.# Restore 12"-15" N	lain Beyond Point Repair (>15' Depth)	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
26	3 LF		
DEG on Inmio);	Tron Direction December 1		
DESCRIPTION:		Point Repair) By Excavation And Replacement (7'-9' D	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
27	3 EA		
DESCRIPTION	W.D. Did. Alt // Destars 400 Main	Dayland Daint Danair (7' 0' Danth)	
DESCRIPTION:		Beyond Point Repair (7'-9' Depth)	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
28	3 LF		
DEG on Inmion	T-12- 201		(0) (0) D (1)
DESCRIPTION:		21" Main(Manhole to Manhole) By Excavation And Replace	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
29	50 LF		
DESCRIPTION:	X Base Bid or Alt.# Restore 18" Main	Point Repair) By Excavation And Replacement (9'-11'	Depth)
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
30	3 EA		
DESCRIPTION:		ain Beyond Point Repair (9'-11' Depth)	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
31	3 LF		
DESCRIPTION:	X Base Bid or Alt.# Restore 18" to 21	' Main(Manhole to Manhole) By Excavation And Replacem	nent (13'-17' Depth)
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
32	30 LF		.~ ,

DESCRIPTION:	X Base Bid or A	.lt.# Restore 18" Mai	n(Point Repair) By Excavation And Replacement (11'-15'	Depth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
33	3	EA		
DESCRIPTION:	X Base Bid or A	.lt# Restore 18" Main B	eyond Point Repair (11'-15' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
34	3	LF		
DESCRIPTION:	X Base Bid or A	1t # Postoro 18" Mai	n(Point Repair) By Excavation And Replacement (>15' De	onth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
35	3	EA	UNITTRICE	UNIT TRICE EXTENSION (Quantity times Out Trice)
	3	LA		
DESCRIPTION:	X Base Bid or A	alt.# Restore 18" Main B	eyond Point Repair (>15' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
36	3	LF		
	-			
DESCRIPTION:	X Base Bid or A	alt.# Restore 21" Mai	n(Point Repair) By Excavation And Replacement (9'-1	1' Depth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
37	3	EA		
DESCRIPTION:	X Base Bid or A	Alt.# Restore 21" Main B	eyond Point Repair (9'-11' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
38	3	LF		
DESCRIPTION:	X Base Bid or A	Alt.# Restore 21" Mai	n(Point Repair) By Excavation And Replacement (11'-15'	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
39	3	EA		
DESCRIPTION:	X Base Bid or A	alt.# Restore 21" Main B	eyond Point Repair (11'-15' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
40	3	LF		

DESCRIPTION:	X Base Bid or Alt.#	Restore 21" Main(P	oint Repair) By Excavation And Replacement (>15' Depth)	
REF. NO.	QUANTITY: U	JNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
41	3 EA	L		
DESCRIPTION:	X Base Bid or Alt.#		eyond Point Repair (>15' Depth)	
REF. NO.	QUANTITY: U	JNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
42	3 L1	F		
DESCRIPTION:	X Base Bid or Alt.#	Restore 24" Main(N	Manhole to Manhole) By Excavation And Replacement (9'-1	3' Depth)
REF. NO.	QUANTITY: U	JNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
43	3 LI			(2)
			1	
DESCRIPTION:	X Base Bid or Alt.#	Restore 24" Main(P	Point Repair) By Excavation And Replacement (9'-11' Depth	n)
REF. NO.	QUANTITY: U	JNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
44	5 E	A		
DESCRIPTION:	X Base Bid or Alt.#	Restore 24" Main B	Beyond Point Repair (9'-11' Depth)	
REF. NO.	QUANTITY: U	JNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
45	3 L1	F		
DESCRIPTION:	X Base Bid or Alt.#	Restore 24" Main(N	Manhole to Manhole) By Excavation And Replacement (13'-	17' Depth)
REF. NO.	QUANTITY: U	JNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
46	25 L1	F		
DESCRIPTION:	X Base Bid or Alt.#		Point Repair) By Excavation And Replacement (11'-15' Dep	,
REF. NO.		JNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
47	3 E	A		
DESCRIPTION:	X Base Bid or Alt.#	Restore 24" Main B	Beyond Point Repair (11'-15' Depth)	
REF. NO.	QUANTITY: U	JNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
48	3 LI	F		

DESCRIPTION:	X Base Bid or A	lt.# Restore 24" Main(P	oint Repair) By Excavation And Replacement (>15' Depth)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
49	1	EA		
DESCRIPTION:	X Base Bid or A	lt.# Restore 24" Main B	eyond Point Repair (>15' Depth)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
50	1	LF		
DESCRIPTION:	X Base Bid or A	lt.# Furnish and install v	wye fittings at point repair , (8"-15" Main)	
				IN HE DDICE EXTENDION (O II. D
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
51	25	EA		
DESCRIPTION:	X Base Bid or A	It # Furnish and install v	wye fittings at point repair, (18"-24" Main)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
52	5	EA	OMITMEL	ONTITICE EXTENSION (Quantity times Out Trice)
32]]	EA		
DESCRIPTION:	X Base Bid or A	lt.# Furnish and inst	all vertical stack fitting, (8"-12"), (Includes wye off main, wy	/e or double wye as shown on SWB Drawing No. 6187-E5)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
53	25	EA		, , ,
DESCRIPTION:	X Base Bid or A	lt.# Furnish and install \	vertical stack fitting, (15"-24"), (Includes wye off main, wye	or double wye as shown on SWB Drawing No. 6187-E5)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
54	2	EA		
DESCRIPTION:	X Base Bid or A	lt.# Furnish and install	6" Sewer House Connection (from Wye To property line of	r clean out)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
55	1500	LF		
DESCRIPTION:	X Base Bid or A	lt.# Furnish and install	6" sewer house connection direct to manhole including tie	-in to manhole (from manhole to P/L or CO)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
56	10	LF		

DESCRIPTION:	X Base Bid or Alt.# Remove and rep	place sewer manholes, complete in place (Brick) (0' to	o 9' depth)
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
57	35 VF		
DESCRIPTION:		e sewer manholes, complete in place (Brick) (>9 to 1	. ,
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
58	35 VF		
DESCRIPTION:	X Base Bid or Alt.# Remove and replace	te sewer manholes, complete in place (Brick) (>15 to 2	OF! dowth)
			. ,
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
59	35 EA		
DESCRIPTION:	X Base Bid or Alt.# Adjust manhole by r	raising/lowering casting with bricks and mortar	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
60	35 EA		
DESCRIPTION:	X Base Bid or Alt.# Set Up and Main	intain Equipment For Well Pointing Of Trenches (8" to	24" Main)
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
61	5 EA		
DESCRIPTION:	X Base Bid or Alt.# Set up and Maintain	ning of sewer bypass system equipment	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
62	1 EA		
		eets, sidewalk and driveway	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
63	1500 LF		
DESCRIPTION:	X Base Bid or Alt.# Removal, disposal a	and restoration of existing roadways, reinforced concre	ete roadways, (8" thick).
		In was prices	AD AMERICAN COLUMN TO THE PART OF THE PART
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)

DESCRIPTION:	X Base Bid or A	Alt.# Removal, dispo	sal and restoration of existing roadways, Asphalt full dept	h roadways (5" thick)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
65	1500	SY		
DESCRIPTION:	X Base Bid or A	Alt.# Asphalt overlaid	roadways (1.5" thick)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
66	100	SY		
DESCRIPTION:	X Base Bid or A	Alt.# Cold milling asp	halt for street repairs	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
67	35	SY		
DESCRIPTION:	X Base Bid or A	<u> </u>	ng driveways (6" thick reinforced concrete)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
68	300	SY		
DESCRIPTION:	X Base Bid or A	Alt.# Cutting and replacing	ng driveways (6" thick reinforced concrete with gravel finis	h)
REF. NO.	OUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
69	15	SY	20.00 00.000	(2
DESCRIPTION:	X Base Bid or A	Alt.# Cutting and replacir	ng driveways (6" thick reinforced concrete with brick to ma	tch existing)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
70	15	SY		
DESCRIPTION:	X Base Bid or A	Alt.# Cutting and replacin	ng sidewalks (4" thick reinforced concrete)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
71	500	SY		
DESCRIPTION:	X Base Bid or A	Alt.# Cutting and replacir	ng sidewalks (4" thick reinforced concrete with gravel finis	sh)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
KET. NO.	*			

DESCRIPTION:	X Base Bid or Alt.# Cutting and replaci	ing sidewalks (reinforced concrete with brick to match exis	ting)
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
73	5 SY		
DESCRIPTION:	X Base Bid or Alt.# Cutting and rep	lacing concrete curb to match existing	<u>, </u>
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
74	2000 LF		
DESCRIPTION:	X Base Bid or Alt.# Reset granite curbs	s ·	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
75	500 LF	Civil Indeb	ONT TRICE EXTENSION (quantity times on Trice)
7.5			
DESCRIPTION:	X Base Bid or Alt.# Minimum depth	of 3" of batture sand and grass sod as directed	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
76	300 SY		
DESCRIPTION:		ean and Film From Clean Out	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
77	10 LF		
DESCRIPTION:		ean and Film From Main	T
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
78	10 LF		
DESCRIPTION:	X Base Bid or Alt.# CIPP Line of Service	ce Lateral up to 5 ft	
REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
79	15 EA		
	X Base Bid or Alt.# CIPP Line of Service	ce Lateral beyond 5 feet	
DESCRIPTION:			
DESCRIPTION: REF. NO.	QUANTITY: UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)

DESCRIPTION:	X Base Bid or Alt.#	_Full segment CIP lin	ing of 8" pipe	
REF. NO.	QUANTITY: UN	NIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
81	100 LF			
DESCRIPTION:	X Base Bid or Alt.#	_ Full segment CIP lin		
REF. NO.	QUANTITY: UN	NIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
82	500 LF			
DESCRIPTION:	X Base Bid or Alt.#	Full seament CIF	P lining of 12" pipe	
REF. NO.		NIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
83	100 LF			(2)
DESCRIPTION:	X Base Bid or Alt.#	_ Full segment CIP lin	ing of 16" pipe	
REF. NO.	QUANTITY: UN	NIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
84	50 LF			
DECCRIPTION	WD D'1 A1.	F. II + OIF	Nicited of 401 cite	
DESCRIPTION:	X Base Bid or Alt.#		P lining of 18" pipe	ANAL DESCRIPTION (O
REF. NO.		NIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
85	50 LF			
DESCRIPTION:	X Base Bid or Alt.#	Full segment CIP lin	ing of 21" pipe	
REF. NO.		IT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
86	50 LF			
		•		
DESCRIPTION:	X Base Bid or Alt.#	_ Full segment CIP lin	ing of 24" pipe	
REF. NO.	QUANTITY: UN	NIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
87	50 LF			
DESCRIPTION:	X Base Bid or Alt.#	_ Full segment CIP lin	ing of 30" pipe	
REF. NO.	QUANTITY: UN	NIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
88	50 LF			

DESCRIPTION:	X Base Bid or A	lt.# Full segment CIP lin	ning of 36" pipe	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
89	50	LF		
	-1			
DESCRIPTION:	X Base Bid or A	lt.# Full segment CIP lir	ning of 42" pipe	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
90	50	LF		
DESCRIPTION:	X Base Bid or A			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
91	50	EA		
	T			
DESCRIPTION:			l obstruction removal	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
92	10	EA		
DESCRIPTION:	X Base Bid or A	It # Permit with Traffic r	plan for work on Notification streets	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
93	10	EA		12 ,
DESCRIPTION:	X Base Bid or A	lt.# Permit with traffi	c plan for work on state roads	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
94	10	EA		
DESCRIPTION:	X Base Bid or A	lt.# traffic controls for w	ork on state roads	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
95	10	EA		
DESCRIPTION:	X Base Bid or A		ork on notification streets	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
96	10	EA		

DES	CRIPTION:	X Base Bid or A	lt.# Temporary Asphalt		
	REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
	97	1000	SY		

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

All blank spaces in this Proposal section shall be filled. A bid price shall be indicated for each bid item. Bids received without all such items completed will be considered non-responsive. The bid shall contain an acknowledgement of receipt of all Addenda in space provided. The Louisiana Uniform Public Work Bid Form & Unit Price Form (if applicable) and the amount of Deposit or Bid Bond five percent (5%) of the total amount of the proposal is REQUIRED to be submitted in a sealed envelope on bid opening date. The two (2) lowest numerical bidders have three (3) days after the bid opening (exclusive of Saturdays, Sundays and Holidays) to submit any additional information such as (Voluntary Extension Sheet, Affidavit, Economically Disadvantage Business Summary Sheet if applicable) as well as requirements of Sections 1-3 through 1-6 below. Failure to do so will render the bid non-responsive.

1-3 BIDDER DECLARATION

do hereby declare that the only person interested in this proposal and that no other person than the one herein named have any interest herein or in the contract proposed to be taken; that it is made without any connection with any other person or persons making proposal for the same work and that it is in all respects fair and without collusion or fraud; also that no member of the Sewerage and Water Board or of the City Council of the City of New Orleans or any officer or employee of the City of New Orleans or of the several boards thereof, who are by law excluded from participation herein, and directly or indirectly interested herein or in furnishing bond or in any portion of the profits hereof.

 _ do he	reby als	o declare th	nat	have LOU	JISIANA	CONT	ΓRACTO	OR'S I	LICENS	SE in	the fie	eld of
						with	NUMBI	ER				

And do further declare that have carefully examined the annexed specifications and the drawings furnished, and personally inspected the ground and that will contract to provide the necessary tools, machinery and apparatus and other means of construction, and to furnish all labor and material specified in this contract or called for by the plans, necessary to complete the work in the manner specified and within the time mentioned in the specifications and according to the requirements of the Engineer, as herein set forth.

1-4 In accordance with Louisiana Revised Statute 38:2227 the following affidavit shown on the next page must be submitted with the bid, or no later than 3 days after the bid opening (excluding Saturdays, Sundays, and Holidays). Failure to do so will render the bid non-responsive. **Please note, THE AFFIDAVIT MUST BE NOTARIZED.**

1-5 **GUARANTEES**

guarantee that the whole of the work under this contract will be substantially completed within **[60** calendar days after the date of the "Commencement of Contract Times."

In case of delay in the completion of the contract beyond the contract time of completion as determined by the Board hereby agree to pay, as liquidated damages, the sum of **Two Thousand Dollars (\$2,000.00)** for each calendar day of such delay, which liquidated damages shall become due by the mere elapsing of the delay without the necessity of putting in default.

1-6 EMERGENCY PROCEDURES

NAME TITLE	
TELEPHONE NO.:	
NORMAL CALLS	_
EMERGENCY	

Contractor must furnish telephone numbers for routine or emergency telephone calls.

STATE OF LOUISIANA

PARISH OF ORLEANS

AFFIDAVIT

BEFORE ME, the undersigned authority, duly con	nmissioned and qualified ar	nd sworn in and for the State and Parish aforesaid,
personally came and appeared	 	who after being duly sworn, did depose and say as
follows:		
1) He/she is the(
		tendere to any of the crimes, or equivalent federal crimes,
listed in Louisiana Revised Statute 38:2227, specifi	cally: public bribery, corrup	ot influencing, extortion, money laundering, theft,
identity theft, theft of a business record, false account	nting, issuing worthless che	ecks, bank fraud, forgery, contractors misapplication of
payments, malfeasance in office.		
		, and /or Officer(s) have, within the preceding 5 years, not
been convicted or plead guilty to, a felony under sta	ate or federal statutes, for er	nbezzlement, theft of public funds, bribery, falsification
or destruction of public records; (City Code Section		
		gers, officers, organizers, or members who have a minimum
ten percent interest ownership interest in the biddin	g entity:	
(name)		
(name)		
(name)		(name)
5) No other persons hold an ownership interest in the		
6) None of the above named individual partners, inc	-	~
· · · · · · · · · · · · · · · · · · ·		of, or has entered a plea of guilty or nolo contendere to
any of the crimes, or equivalent federal crimes, liste		
	-	ss record, false accounting, issuing worthless checks,
bank fraud, forgery, contractors misapplication of p	-	
	City of New Orleans or fees	charges to the Sewerage and Water Board. (City Code
Section 2-8)		
The following sections apply only to Public World		
· ·		is registered and participates in the "Status verification
system" of the Illegal Immigration Reform and Imr		· · · · · · · · · · · · · · · · · · ·
program to verify that all employees in the State of	_	-
		to utilize a status verification system to verify the legal
status of all new employees in the state of Louisians		
	abcontractors to submit to the	he contractor a sworn affidavit verifying compliance with
the Status verification system.		
WITNESSES:		
	AFFIA	NT
SWORN TO AND SUBSCRIBED BEFORE	ME ON THIS	
DAY OF	. 20	
	, 20	
	_	
NOTARY PUBLIC		Notary Id. No. or Bar Roll No.
	_	

PLEASE PRINT NAME OF NOTARY

VOLUNTARY EXTENSIONS OF THE AWARD

If this bid is determined to be the lowest responsive and responsible bid, Bidder agrees to bio
extension of the award date by up to two (2) thirty (30) day periods in accordance with the
provisions of Louisiana Revised Statue. Title 38, Section 2215 (A).

AGREED:		
NAME OF BIDDER (TYPE OR PRINT)		
NAME OF BIDDER (TITE OR TRIVI)		
SIGNATURE OF BIDDER		
COMPANY NAME		

* * * END OF SECTION * * *

VOLUNTARY EXTENSIONS OF THE AWARD

BID BOND

SURETY (Name and Address of Principal Place of Business): OWNER (Name and Address):	
OWNER (Name and Address):	
BID Bid Due Date: Project (Brief Description Including Location):	
BOND Bond Number: Date (Not later than Bid due date): Penal sum	
(Words)	(Figures)
Surety and Bidder, intending to be legally bound hereby, subject to the te do each cause this Bid Bond to be duly executed on its behalf by its author	
BIDDER SURETY(Seal)	(Seal)
Bidder's Name and Corporate Seal Surety's N	Name and Corporate Seal
By: By:	
Signature and Title Signature (Attach Po	and Title ower of Attorney)
Attest: Attest:	
Signature and Title Signature	and Title

Note: Above addresses are to be used for giving required notice.

CONVICTED FELON AFFIDAVIT

STATE (OF	
PARISH	/COUNTY OF	-
E	Before me, the undersigned authority, cam	e and appeared,
who, bei	ing first duly sworn, deposed and said that	:
1. He/S	She is the	and authorized representative of
		, hereafter called "Contractor."
2. The	Contractor complies with City Code Section	on 2-8 (c) for the City of New Orleans.
3. No C	Contractor principal, member, or officer h	as, within the preceding five years, been convicted of, or
pled gui	lty to, a felony under state or federal sta	tutes for embezzlement, theft of public funds, bribery, or
falsificat	tion or destruction of public records.	
		Proposer Representative (Signature)
		(Print or type name) (Address)
Sworn to	o and subscribed before me, in (CITY/STA	ATE)
This	day of (MONTH)	, 20
_	Notary Public	<u> </u>
_	Notary Identification No./Bar Roll No.	_

NON-SOLICITATION AFFIDAVIT

STATE OF			
PARISH/COUNT	ГҮ ОF		
Before me	e, the undersigned authority, came a	and appeared	,
who, bein	g first duly sworn, deposed and said	d that:	
1.	He/She is the		and
	authorized representative of		hereafter called "Contractor."
2.	The Contractor has not employed of	or retained ar	ny company or person, other than a bona fide
	employee working solely for Co	entractor, to	solicit or secure the subject contract. The
	Contractor has not paid or agree	d to pay any	y person, other than a bona fide employee
	working for Contractor, any fee,	commission,	percentage, gift, or any other consideration
	contingent upon or resulting from	the subject of	contract.
			Contractor Representative (Signature)
			(Print or type name) (Address)
Sworn to and sub	escribed before me, in		, Louisiana,
thisday of		, 20	
	Notary Public		

Notary Identification No./Bar Roll No.

NON-COLLUSION AFFIDAVIT

STATE OF				
PARISH/COUNTY OF				
, being fir	est duly sworn, deposes and says that:			
(1) S/He is (Owner) (Partner) (Office) (Representati	ve) or (Agent), of:			
the Proposer that has submitted the attached Prop	posal:			
(2) Such Proposal is genuine and is not a collusive o	or sham Proposal:			
interest, including this affiant, has in any way collud other Proposer, firm or person to submit a collusive attached Proposal has been submitted or to refrain fr manner, directly or indirectly sought by agreement of Proposer, or to fix any overhead, profit or cost elements	partners, owners, agents, representatives, employees or parties of led, conspired, connived or agreed, directly, or indirectly with any or sham proposal in connection with the Contract for which the comproposing in connection with such contract, or has in any or collusion or communication or conference with any other ent of the proposal price or the proposal price of any other t the Sewerage and Water Board of New Orleans of any person			
	sal are fair and proper and are not tainted by any collusion, ne part of the Proposer or any of its agents, representatives, this affiant.			
Proposer Representative (Signature)	Title			
(Print or type name)	-			
SWORN TO AND SUBSCRIBED BEFORE ME				
THIS DAY OF	20 Notary ID#/Bar Roll #			
NOTARY PUBLIC (Signature)	NOTARY PUBLIC (Print Name)			

CONFLICT OF INTEREST DISCLOSURE AFFIDAVIT

STATE OF		_	
PARISH/COUNTY OF		_	
Before me, the undersigned sworn, deposed and said that	•		who, being first duly
	and aut	horized representative o	of
Hereafter called "Bidder."	,		
connection with this solicit including any familial or principals have with the Boat (If a conflict(s) of interest ex	ation which might impair R business relationships that the rd officials or employees.	espondent's ability to ne Respondent, the presence in a letter the nature of	t exist/may exist (circle one) in perform if awarded the contract, roposed subcontractors, and their of the conflict, the parties involved
	Respondent Representative (Signature)		_
	(Print or type name)		-
	(Address)		-
SWORN TO AND SUBSCETHISDAY OF		0	
NOTARY PUBLIC (Signa	iture)	NOTARY PUB	BLIC (Print Name)
Notary ID#/Bar Roll#			

BIDDERS'S ORGANIZATION

<u>AN INDIVIDUAL</u>			
Individual's Name:			
Doing business as:			
Address:			
Telephone No.:			
<u>A PARTNERSHIP</u>			
Firm Name:			
Address:			
Name of person authorized to sign:			
Title:			
Telephone No.:			
A LIMITED LIABILITY COMPANY			
Company Name:			
Address:			
Name of person authorized to sign:			
Title:			
Telephone No.:	Fax No.:	Email:	

A CORPORATION

IF PROPOSAL IS BY A CORPORATION, THE CORPORATE RESOLUTION MUST BE SUBMITTED WITH PROPOSAL.

CORPORATE RESOLUTION

A meeting of the Board of Directors of	a corporation organized
under the laws of the State of	and domiciled in
was held thisday,20 and	d was attended by a quorum of the
members of the Board of Directors.	
The following resolution was offered, duly seconded and a	fter discussion was unanimously
adopted by said quorum:	
BE IT RESOLVED, that	is hereby
authorized to submit proposals and execute agreements or	behalf of this corporation
with the Sewerage and Water Board of New Orleans.	
BE IT FURTHER RESOLVED, that said authorization an	d appointment shall remain in full force
and effect, unless revoked by resolution of this Board of	Directors and that said revocation will
not take effect until the Procurement Director of the Boar	d, shall have been furnished a copy of
said resolution, duly certified.	
I,, hereby certify that I am the Secretary of	, a corporation created under the
laws of the State of _domiciled in;that the foregoing is	a true and exact copy of a resolution
adopted by a quorum of the Board of Directors of said corp	poration at a meeting legally called and
held on the day of, as said resolution	on appears of record in the Official
Minutes of the Board of Directors in my possession.	
Thisday of, 20	
SECRETA	RY

ECONOMICALLY DISADVANTAGED BUSINESS PARTICIPATION SUMMARY SHEET

Minimum Percentage Goal Participation for this Contract is _____%

Contract Name and Number #

Name and Address of Disadvantaged Business Enterprise Company	Name of Contact Person	Scope of Work to be Performed	Dollar Amount of work to be performed	Percentage of Dollar Amount to Total Bid Price

NOTE: Signature required even if judged **NOT APPLICABLE** by the **BIDDER**

Prime Representative Name:	Prime Signature:
Prime Company's Name:	Date:
Prime Address:	E-mail:
	Telephone Number:

Revised October 30, 2024

ACKNOWLEDGEMENT

OF NEGOTIATED TERMS BETWEEN

PRIME CONTRACTOR AND DBE SUBCONTRACTOR

Solicitation:			
This form acknowledges that the			
Prime			
and			
DBE Subcontractor	Certification:	SLDBE or	LAUCP
have agreed to the following terms of service	:		
Scope of Work:			
	describe the agreed upon terms be	tween the Prime and DB	E.
DBE Percentage of Total Contract:			
Dollar Amount of DBE Work: \$			
By signing this acknowledgement, the Prime of will perform the Scope of Work for the estimate certify that the information contained herein	ated total dollar value st		
PRIME CONTRACTOR:			
Printed Name:			
Signature:			
Date:			
DBE SUBCONTRACTOR:			
Printed Name:			
Signature:		-	
Date:			

NEW ORLEANS MASTER 469936

- 1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Surety's liability.
- 2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
- 3. This obligation shall be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to
- 4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

- 5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
- 6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
- 7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
- 8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
- 9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
- This Bond is intended to conform to all applicable statutory requirements. Any applicable

requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

END OF SECTION



AGREEMENT

THIS AGREEMENT is by and between the Sewerage and Water Board of New Orleans		
(Owner) and		
	(Contractor).	
Owner and Contractor, in consideration of the mutual covenants set forth herein, agree as follows:		

1. WORK

- 1.1. Contractor shall complete the Work as specified or indicated in the Contract Documents. The Work is generally described as follows:
 - 1.1.1. [CCTV and Cleaning of Sewer Mains Throughout Orleans Parish as Directed by Engineer]

2. THE PROJECT

2.1. The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

3. ENGINEER

3.1. The Project has been designed by [__Ashraf Abdelbaqi___] (Designer), who is to act as the Engineer-of-Record under the oversight and administration of the Owner's Representative.

4. CONTRACT TIMES

- 4.1. Time of the Essence: Time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 4.2. [A: Days to Achieve Substantial Completion and Final Payment:
 - 4.2.1. The Work shall be substantially completed within [365] calendar days from the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within [365] calendar days after the date when the Contract Times commence to run.]

4.3. Liquidated Damages:

4.3.1. Should the Contractor fail to commence or start the work within the time allotted or fail to complete individual phases of the work within the times allotted for said individual phases, the Contractor shall pay to the Board the sum of \$2,000 liquidated damages for each calendar day beyond the times specified. If unforeseen circumstances are encountered at the work site, the Contractor may request in writing an extension in days for the completion of work. If granted, the extension of time must be approved in writing by the Engineer and submitted with the invoice.

4.4. Night, Weekend, or Holiday Work

4.4.1. Night, weekend or holiday work which requires the presence of an engineer or inspector will not be permitted except in cases of emergency or by permission of the Engineer. Except in cases of emergency, all requests for night, weekend or holiday work shall be submitted in writing at least seven calendar days prior to the work being performed. Any approved night, weekend or holiday work requires prior written authorization from the Engineer

5. CONTRACT PRICE

5.1. Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to the prices stated in Contractor's Bid attached hereto as an exhibit.

6. PAYMENT PROCEDURES

- 6.1. Submittal and Processing of Payments: Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.
- 6.2. Progress Payments and Retainage: Owner will make progress payments on account of the Contract Price on the basis of Contractor's Application for Payment on **the date of each month as established in the preconstruction conference** during performance of the Work as provided herein. All such payments will be measured by the Schedule of Values established as provided in Paragraph 2.07 of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided in the General Requirements.
 - **6.2.1.** Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions:
 - 6.2.1.1. **Ninety-five** percent of Work completed for contracts in the amount of \$500,000.00 or greater (with the balance being retainage). Ninety percent of Work completed for contracts in an amount less than \$500,000.00 (with the balance being retainage).
 - 6.2.2. In accordance with Louisiana Statute 38:2249, Contractor may withdraw up to the entire retained amount if they deposit an equal amount in a Certificate of Deposit issued by a commercial bank or savings and loan located in Louisiana.
 - 6.2.3. In accordance with Louisiana Statute 38:2248.A, retainage will be released within 45 days of Final Acceptance by the SWBNO Board of Directors.
 - 6.2.4. Upon Substantial Completion, Owner will pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts as Engineer will determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

6.3. Final Payment:

6.3.1. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner will pay the remainder of the Contract Price as recommended by Engineer as provided in Paragraph 14.07.

7. CONTRACTOR'S REPRESENTATIONS

- 7.1. Contractor makes the following representations:
 - 7.1.1. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - 7.1.2. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - 7.1.3. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - **7.1.4.** Contractor has carefully studied: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) if any, which have been identified in Paragraph 4.02 of the

Supplementary Conditions as containing reliable "technical data", and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site which have been identified in Paragraph 4.06 of the Supplementary Conditions as containing reliable "technical data."

- 7.1.5. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on 1) the cost, progress, and performance of the Work; 2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and 3) Contractor's safety precautions and programs.
- 7.1.6. Based on the information and observations referred to above, Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- 7.1.7. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- 7.1.8. Contractor has given Engineer written notice of conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- 7.1.9. The Contract Documents are generally sufficient to indicate and convey understanding of terms and conditions for performance and furnishing of the Work.

8. CONTRACT DOCUMENTS

- 8.1. Contents:
 - 8.1.1. The Contract Documents that are attached to this Agreement (except as expressly noted otherwise) consist of the following:
 - 8.1.1.1. This Agreement.
 - 8.1.1.2. Performance bond.
 - 8.1.1.3. General Conditions
 - 8.1.1.4. Supplementary Conditions
 - 8.1.1.5. Specifications as listed in the table of contents
 - 8.1.1.6. Drawings consisting of [N/A] sheets with each sheet bearing the following general title: [" N/A ".]
 - 8.1.1.7. Addenda
 - 8.1.2. Exhibits to this Agreement (enumerated as follows):
 - 8.1.2.1. Contractor's Bid.
 - 8.1.3. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - 8.1.3.1. Notice to Proceed.
 - 8.1.3.2. Work Change Directives.

8.1.3.3. Change Order(s).

- 8.2. There are no Contract Documents other than those listed above in this Article.
- 8.3. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

9. MISCELLANEOUS

- 9.1. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.
- 9.2. Successors and Assigns: Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.
- 9.3. Severability: Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.4. Assignment of Contract:

9.4.1. No assignment by a party hereto of any rights under or interests in the Contract shall be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment shall release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.5. Contractor's Certifications:

- 9.5.1. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this paragraph:
 - 9.5.1.1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in Contract execution;
 - 9.5.1.2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract Price at artificial noncompetitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 9.5.1.3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, noncompetitive levels; and
 - 9.5.1.4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

9.6. Law and Jurisdiction

9.6.1 Contractor, by act of signing this Contract, consents and yields to the jurisdiction of the Civil District Court of the Parish of Orleans of the State of Louisiana and does formally waive any plea of lack of jurisdiction, on account of its residence elsewhere in the event of suit under this Contract. This Contract shall be governed by and shall be interpreted in accordance with the laws of the State of Louisiana. Contractor agrees that any suit arising out of this Contract shall be brought in the Civil District Court for the Parish of Orleans and Contractor hereby waives any objection to improper venue and agrees to submit to the jurisdiction of said court.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in triplicate. One counterpart each has been delivered to Owner, Contractor, and Engineer. All portions of the Contract Documents have been

signed or identified by Owner and Contractor or on their behalf.

Agent for service or process:

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

END OF SECTION

(If Owner is a corporation, attach evidence of

Agreement.)

authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this

PERFORMANCE BOND FORM

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable. CONTRACTOR **SURETY** (Name and Address): (Name and Address of Principal Place of Business): OWNER (Name and Address): CONTRACT Date: Amount: Description (Name and Location): **BOND** Bond Number: Date (Not earlier than Contract Date): Amount: Modifications to this Bond Form: Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative. CONTRACTOR AS PRINCIPAL SURETY Company: Signature: _ _____ (Seal) ___ (Seal) Surety's Name and Corporate Seal Name and Title By: ___ Signature and Title (Attach Power of Attorney) (Space is provided below for signatures of additional parties, if required.) Attest: __ Signature and Title **SURETY** CONTRACTOR AS PRINCIPAL Company: Signature: _ _____ (Seal) _____ (Seal) Name and Title Surety's Name and Corporate Seal

Ву: ———
Signature and Title
(Attach Power of Attorney)
Attest:
Signature and Title

NEW ORLEANS MASTER 469936 PERFORMANCE BOND FORM

- 1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.
- 2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.
- 3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - 3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall

not waive Owner's right, if any, subsequently to declare a Contractor Default; and

- 3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and
- 3.3. Owner has agreed to pay the Balance of the Contract Price to:
 - 1. Surety in accordance with the terms of the Contract;
 - 2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.
- 4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:
 - 4.1. Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or 4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a

contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or

- 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 - 1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
- 5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
- 6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:
 - 6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract:
 - 6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of

Surety under Paragraph 4; and 6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or nonperformance of Contractor.

- 7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.
- 8. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.
- 9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.
- 11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

12.1. Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled,

reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.

- 12.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 12.3. Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 12.4. Owner Default: Failure of Owner, which has

neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone

Surety Agency or Broker

Owner's Representative (engineer or other party)

END OF SECTION

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

- 37. 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.
- 38. 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.
- 39. 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.
- 40. 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.
- 41. 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.
- 42. 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.
 43. 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.
- 44. 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.
- 45. Successful Bidder—The Bidder submitting a responsive Bid to whom Owner makes an award.
 46. Supplementary Conditions—That part of the Contract Documents which amends or supplements these General Conditions.
- 47. 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 Subcontractor. 48. *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. 49. *Unit Price Work*—Work to be paid for on the basis of unit prices.

- 50. 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.
- 51. 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 words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated 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

information in the Contract Documents and with the design concept of the 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 that 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; Designation of Authorized Representatives

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.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

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 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 reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated 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, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, 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 discovers, or has actual knowledge of, 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 (a)
 any applicable Law or Regulation, (b) any standard,
 specification, manual, or code, or (c) any instruction of
 any Supplier, then 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 had actual knowledge 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, or code, or the instruction of any Supplier (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);

- 3. Engineer's written interpretation or clarification.
- 3.05 Reuse of Documents
- A. Contractor and any Subcontractor or Supplier

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 its consultants, including electronic media editions; or
- 2. reuse any 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 adaptation by Engineer.
- B. The prohibitions 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. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by 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 known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

 B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the 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 officers, directors, members, partners, employees, agents, consultants, or subcontractors 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 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

2. 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;

5. 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 inParagraph 4.03.A; andb. 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 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, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents,

consultants, or subcontractors shall 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 provided by others; 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, 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.

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:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.

B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the 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 officers, directors, members, partners, employees, agents, consultants, or subcontractors 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 such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

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 written notice to Contractor:
(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, members, partners, employees, agents,

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

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, members, 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.

ARTICLE 5 – BONDS AND INSURANCE

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 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 or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond. 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 and loss payee 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 and loss payee 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.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.

 E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the

Contract Documents.
5.04 *Contractor's Insurance*

A. Contractor shall purchase and maintain such 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:
- 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written

on an occurrence basis, include as additional insureds (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, members, 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 contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
- 4. 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);
- 5. 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
- 6. include completed operations coverage:
- a. Such insurance shall remain in effect for

two years after final payment.

b. 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, members, 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 a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical

loss or damage to the Work, temporary buildings, falsework, 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 that 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 loss payee to whom a certificate of insurance has

been issued.

B. Owner shall purchase and maintain such equipment breakdown 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 Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, 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 a loss payee.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this 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 loss payee 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 this 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 as loss payees (and the officers, directors,

members, 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 loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and 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 as loss payees (and the officers, directors, members, 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, members, 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, members, 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 loss

payees, 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

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. 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, 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; and
- 3) it has a proven record of performance and availability of responsive service.
- 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 if 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 by 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
- 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,
- 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 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 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:

Paragraph 6.05.A.2.

- a) all variations of the proposed substitute item from that specified, and b) available engineering, sales, maintenance, repair, and replacement services; and
- 4) 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

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 a Change Order in the case of a substitute and 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 so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner

for the reasonable 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

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 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 a loss payee 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, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, 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, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors 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 specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, 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 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, members, 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. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. 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. Contractor shall comply with the applicable
 requirements of Owner's safety programs, if any. The
 Supplementary Conditions identify any Owner's safety
 programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site. E. 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 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). F. 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 accepted 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:
- 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:
 a. 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;
- b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
- c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
- d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- 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 Drawings

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

officers, directors, members, partners, employees, agents, consultants, and subcontractors 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.

Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors 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

- 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, members, 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

- 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, members, 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

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 suchservices 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 inParagraph 6.17.D.1.

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

End of Article 6

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 through 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, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and 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 such work; provided, however, that Contractor may cut or alter others' 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 another 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. Contracr'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 wrongful actions or inactions.

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

8.05 Lands and Easements; Reports and Tests

A. Owner's duties with respect to 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 relating to existing surface or subsurface structures at the Site.

8.06 Insurance

A. Owner's responsibilities, if any, with 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 with 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. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.
8.12 Compliance with Safety Program
A. While at the Site, Owner's employees and representatives shall comply with the specific applicable

requirements of Contractor's safety programs of which

Owner has been informed pursuant to Paragraph 6.13.D.

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 Engineers Owner's representative during construction are set forth in the Contract Documents.

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 visitor 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 Engineering 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 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 afield 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 Projects 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 believes 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 responsible 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.

9.10 Compliance with Safety Program
A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

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.D.

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 the provisions of any bond require notice to be given to a surety 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), 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 Times 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 Engineerallows 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 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 not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

- 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 on the Work. 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, as 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, express and courier services, 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, expediters, 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. 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 onthe 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 to 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 Paragraphs 12.01.C.2.a and 12.01.C.2.b 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 their officers, directors, members, partners, employees, agents, consultants, or subcontractors 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. 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 Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's 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 Paragraph 13.04.C; and 3. as otherwise specifically provided in the
- 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, Contractor shall, if requested by Engineer, uncover such Work 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

necessary labor, material, and equipment. C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses,

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 written 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 for 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 besa tis factory 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 towner or return the Application to Contractor indicating inwriting 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 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, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and 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:
- 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. 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 remedies the reasons for such action.
- 3. Upon a subsequent determination 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 and subject to interest as provided in the Agreement.

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.

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 remove its property and 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, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D 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 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.6; b. consent of the surety, if any, to final
- 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.

payment;

- 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 might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, 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.

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 repeated 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 the 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 Documents, 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

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SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract as indicated below. All provisions that are not so amended or supplemented remain in full force and effect. The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof. The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

SC-1.01. Add the following language at the end of Paragraph 1.01.A.19: Engineer is the General Superintendent for the Sewerage and Water Board of New Orleans or delegate and has the authority provided in this Contract to approve or disapprove all changes to the Contract documents.

SC-1.01. Add the following language at the end of Paragraph 1.01.A.44: Substantial Completion is further defined as (i) that degree of completion of the Project's operating facilities or systems sufficient to provide Owner the full time, uninterrupted, and continuous beneficial operation of the Work; and (ii) required functional, performance and acceptance, or startup testing has been successfully demonstrated for components, devices, equipment, and instrumentation and control to the satisfaction of Engineer in accordance with the requirements of the Specifications.

SC-1.01. Add the following new paragraph immediately after Paragraph 1.01.A.51:

1.01.A.52. Specialist—The term Specialist refers to a person, partnership, firm, or corporation of established reputation (or if newly organized, whose personnel have previously established a reputation in the same field), which is regularly engaged in, and which maintains a regular force of workers skilled in either (as applicable) manufacturing or fabricating items required by the Contract Documents, or otherwise performing Work required by the Contract Documents. Where the Specifications require the installation by a Specialist, that term shall also be deemed to mean either the manufacturer of the item, a person, partnership, firm, or corporation licensed by the manufacturer, or a person, partnership, firm, or corporation who will perform the Work under the manufacturer's direct supervision. 1.01.A.53. Construction Coordinator—The term Construction Coordinator, where and when used, refers to an authorized representative of Owner or Engineer who may be assigned to the Site or any part thereof to monitor and oversee construction activities by Contractor. Synonymous with Resident Project Representative (RPR) and Owner's Representative.

1.01.A.54 *Owner's Representative*—The term Owner's Representative, where and when used, refers to an authorized representative of Owner who may be assigned to the Site or any part thereof to monitor and oversee construction activities by Contractor. Synonymous with Resident Project Representative (RPR) and Construction Coordinator.

- SC-2.01. Delete the wording "and Owner" and "each" in lines 2 and 7 in Paragraph 2.01.B
- SC-2.02. Amend first sentence in Paragraph 2.02.A to read as follows:
 2.02.A. Upon award of Contract, Owner will furnish Contractor with complete conformed project documents (Drawings and Project Manual) in electronic format.
- SC-2.03. Delete the third sentence of Paragraph 2.03.A in its entirety.

SC-3.01. Add the following new paragraph immediately after Paragraph 3.01.C:

3.01.D. Sections of Division 01, General Requirements, govern the execution of the Work of all sections of the Specifications.

SC-4.02. Add the following new paragraph(s) immediately after Paragraph 4.02.B:

4.02.D. The following drawings of physical conditions relating to existing surface and subsurface structures at the Site (except Underground Facilities) are known to Owner:

4.02.D.1. Record drawings of the Main Water Purification Plant.

4.02.E. Copies of reports and drawings itemized in SC-4.02.C and SC-4.02.D that are not included with Bidding Documents may be examined at Owner's offices during regular business hours. These reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Contractor may rely, as expressly identified and established above, are incorporated in the Contract Documents by reference. Contractor is not entitled to rely upon any other information and data known to or identified by Owner.

SC-4.06. Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following in their place:

4.06.A. No reports or drawings related to Hazardous Environmental Conditions are known to Owner.

SC-5.01. Delete in Paragraph 5.01.A first sentence the wording "and payment"

SC-5.02. Add the following new paragraph immediately after Paragraph 5.02.A:

SC-5.02.B. As an alternative to the requirements in paragraph A above, bonds may also be provided by a Louisiana Domiciled Insurance company with at least an A.M. Best's Financial Strength Rating of A minus (A-) rating, or the bond shall be written by an insurance company that is either domiciled in Louisiana or owned by Louisiana residents and is licensed to write surety bonds. In addition, any surety bond written for a public works project shall be written by a surety or insurance company that is currently licensed to do business in the State of Louisiana. Surety and insurance companies from which the bonds and insurance for this Project are purchased under the provisions of paragraph 5.02.A shall have an A.M. Best's Financial Strength Rating of A minus (A-) or better with a Financial Size Category of no less than VII, in addition to other requirements specified herein.

SC-5.04. Add the following language after Paragraph 5.04.B.1: Policies will endorse the following parties or entities as additional insured:

5.04.B.1.a. Sewerage and Water Board of New Orleans, 625 St. Joseph Street, New Orleans, Louisiana 70165
5.04.B.1.b. The City of New Orleans, 1300 Perdido Street, New Orleans, Louisiana 70112
5.04.B.1.c. []
5.04.B.1.d. []
5.04.B.1.e. [].
SC-5.04. Add the following new paragraph immediately following Paragraph 5.04.B:

5.04.C. Insurance: General Requirements. The Contractor will maintain, at his own cost and expense, and in good standing, such insurance as will protect the Sewerage and Water Board of New Orleans (the Board), the City of New Orleans (the City,) their officers, officials, employees, boards, commissions and volunteers, as well as the Contractor himself and any subcontractors from and against any and all claims for damages to public and private property and personal injury, including death, to employees or to the public, which may arise from any operations under this Contract or any of its subcontracts. The coverage will contain no special limitations on the scope of protection afforded to the Board and the City. Both the Board and the City will appear as "Additional Insured" on all Commercial General Liability and Business Automobile Liability. Any failure to comply with the reporting provisions of a policy will not affect coverage provided to the Board and the City, their officers, officials, employees, boards and commissions and volunteers. The Contractor's insurance will apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. In general, insurance is to be placed with insurers with an A.M. Best's rating of A-:V, although this requirement may be reviewed and modified by the Risk Manager of the Sewerage and Water Board of New Orleans in the best interest of the Board. The Risk Manager may also consider performing such review upon written request from the Contractor. The Contractor shall furnish the Sewerage and Water of New Orleans with certificates of insurance affecting coverage required by this Contract. The certificates for each insurance policy are to be signed by a person authorized

by that insurer to bind coverage on its behalf. The certificates of insurance are to be received and approved by the Risk Manager of the Sewerage and Water Board of New Orleans, 625 St. Joseph St., Rm. 119, New Orleans, LA 70165, before work commences. The Sewerage and Water Board of New Orleans reserves the right to require complete, certified copies of all insurance policies at any time, as proof that the insurance placed meets the requirements of this Contract.

If the insurance is written subject to a deductible clause, Contractor assumes responsibility for the amount of the deductible. In addition, the Contractor shall be required to furnish to the Risk Manager of the Sewerage and Water Board of New Orleans all copies of investigative reports with regard to any and all claims with the Contractor and his insurance carriers, relative to the contract, with the exception of claims filed with his Workers' Compensation Insurance. Such reports shall include dates, location and description of loss as well as amounts of settlements or judgments in order that annual aggregate limits maybe monitored by the Sewerage and Water Board of New Orleans for the Contactor's compliance with these Specifications. The furnishing of insurance as provided above shall not relieve the Contractor of his responsibility for losses not covered by insurance. All policies shall be with insurance companies authorized to do business in Louisiana and shall remain in full force and effect until the final completion of the work and acceptance thereof by the authority of the Board. 5.04.C.1 Subrogation The Contractor, Subcontractor(s), and their insurers shall agree to waive all the rights of subrogation against the Board, the City, and their officers, officials, employees, boards and commissions, and volunteers for losses arising from work performed by the Contractor for the Board and the City.

5.04.C.2. Insurance Cancellations and Stop-Work Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits except after thirty (30) days prior written notice has been given to the Risk Manager, 625 St. Joseph St., Rm. 119, New Orleans, LA 70165, of the Sewerage & Water Board of New Orleans,

via certified mail. The Contractor and/or his insurer shall notify the Risk Manager of the Sewerage and Water Board of New Orleans at least thirty (30) days in advance of any insurance coverage to be canceled or of any insurance coverage that will expire. The Contractor shall simultaneously furnish the Board evidence of new coverage to be effective the same day and hour of the expired or canceled coverage. In the event the Contractor and/or his insurer fails to submit this evidence of new coverage five (5) days prior to the cancellation date or expiration date of any policy or policies, the Sewerage and Water Board will have the right to obtain the required coverage to become effective on the date of cancellation or expiration of said policies. The cost of such new policies shall be at the expense of the Contractor and any expenditure incurred by the Board for this coverage will be deducted from any balance due to the Contractor. Should the Board be unable to secure new coverage to take the place of the expired or cancelled policy or policies, a "stop work" order will issued and all work on the contract shall cease on the same date and hour as the coverage ceases. Should the Contractor fail or refuse to secure coverage within five (5) days after the date of the "stop work" order, the Contractor shall be declared to be in default, and the contract between the parties shall be considered cancelled and of no force or effect between the parties reserving all the rights of the Board against the Contractor and his surety.

5.04.C.3. Insurance Policies, Endorsements, and Limits Required The following are the types of insurance policies and the minimum limits of insurance coverage which shall be maintained by the Contractor during the entire term of the Contract: 5.04.C.3.a. WORKERS' COMPENSATION AND EMPLOYERS LIABILITY INSURANCE WORKERS' COMPENSATION AND EMPLOYERS LIABILITY INSURANCE, as will protect Contractor from claims under Louisiana Workers' Compensation Laws. The Workers' Compensation section of the policy shall afford Statutory Limits and be in accordance with all Louisiana Workers' Compensation Statutes. The Employers Liability limit shall not be less than \$3,000,000 each accident for bodily injury by accident and \$3,000,000 each employee/policy limit for bodily injury by disease. Whenever any Federal Longshoreman's and Harbor Workers' Act, and shall also include protection for injuries and/or death to Master and Members of the crews of vessels with statutory limits in accordance with the Jones Act. 5.04.C.3.b. COMMERCIAL GENERAL LIABILITY INSURANCE COMMERCIAL GENERAL LIABILITY INSURANCE, with a limit of not less than \$2,000,000 each occurrence and not less than \$4,000,000 general annual aggregate, including Explosion, Collapse, and Underground Property Damage Hazards. The Products-Completed Operations aggregate limit shall not be less than \$2,000,000 each occurrence. The general aggregate limit shall apply separately to this project.

5.04.C.3.c. BUSINESS AUTOMOBILE LIABILITY INSURANCE BUSINESS AUTOMOBILE LIABILITY INSURANCE, which shall cover liability arising out of accidents involving any auto (including Owned, Hired, and Non-Owned autos). The limit of liability shall not be less than \$1,000,000 each accident for all injuries, property damage, and/or death resulting from any one occurrence.

5.04.C.3.d. OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY INSURANCE OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY INSURANCE, as will protect the Contractor, the Sewerage and Water Board of New Orleans, and the City of New Orleans from and against any and all claims and lawsuits involving vicarious liability. The limits of liability shall be the same as specified in Paragraph (b) above, and shall include Explosion, Collapse and Underground Hazards.

5.04.C.3.e. PROFESSIONAL LIABILITY INSURANCE PROFESSIONAL LIABILITY INSURANCE, as may be applicable to the particular profession or service to be provided, with a limit of not less than \$2,000,000 each Claim, with at least a \$4,000,000 annual aggregate, without any restrictive "negligent act, negligent error, or negligent omission"

clause, and sufficient to protect the Contractor, the Board, and the City, for a five (5) year period from completion of this contract, against any and all claims which may arise from the Contractor's negligent performance of work described herein. 5.04.C.3.f. PROPERTY INSURANCE PROPERTY INSURANCE, required on all work except sewer and water drainage pipelines, reinforced concrete canals, work completely underground, and similar work (however Contractor is not relieved of responsibility therefore) as follows:

5.04.C.3.f(1). ALL RISKS BUILDERS RISK INSURANCE (covering Fire, Extended Coverage, Vandalism and Malicious Mischief) will be carried on a completed value or reporting form, for not less than 100 percent of the value of the work, including foundations. Coverage will include all machinery and equipment to be installed, whether furnished by the Sewerage & Water Board or by Contractor, for not less than 100 percent of the installed value of the machinery and equipment. This insurance shall be written in the same Insurance Company carrying the Builder's Risk Insurance, shall include testing and startup, shall for partial utilization of the Work by Owner, and shall terminate only when installation has been accepted by the Sewerage and Water Board. The All Risks Builder's Risk Policy shall include the names of the Sewerage & Water Board of New Orleans, and City of New Orleans, and will cover the interests of all subcontractors without specifically naming them.

5.04.C.3.g. WORKERS' COMPENSATION AND UNEMPLOYMENT COVERAGE, ADDITIONAL CONDITIONS 5.04.C.3.g(1) WORKERS' COMPENSATION: The Contractor expressly agrees and acknowledges that it is an "independent contractor" as defined in LSA-R.S.23:1021(6), and that its employees shall not be considered employees of the Board for workers' compensation benefits or coverage.

5.04.C.3.g(2) EXCLUSIVE OF UNEMPLOYMENT COMPENSATION COVERAGE: Contractor herein expressly agrees and acknowledges that it is an "independent contractor" as defined in LSA-R.S.23:1472(E0, that neither the contractor nor any one employed by the Contractor shall be considered an employee of the Board for the purpose of employment of compensation coverage.

SC-5.06. Delete Paragraph 5.06.A in its entirety.

SC-5.06. Delete Paragraph 5.06.B in its entirety.

SC-5.06. Delete Paragraph 5.06 E in its entirety.

SC-5.07. Delete third sentence of Paragraph 5.07.A in its entirety and insert the following in its place:

Contractor and Contractor's insurers waive all rights against Owner and their respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them for all losses and 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 as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused.

SC-5.07. Delete the last sentence of Paragraph 5.07.A in its entirety and insert the following in its place: 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 Contractor as trustee or otherwise payable under any policy so issued.

SC-5.07. Delete Paragraph 5.07.B in its entirety.

SC-5.07. Delete Paragraph 5.07.C in its entirety.

SC-5.08. Delete Paragraph 5.08.A in its entirety.

SC-5.08. Delete Paragraph 5.08.B in its entirety.

SC-6.02. Add the following new paragraph immediately after Paragraph 6.02.B:

6.02.C. Contractor shall reimburse Owner for Engineer's additional extraordinary costs for onsite personnel overtime work resulting from Contractor's overtime operations. Reimbursement shall be on the cost basis defined in Paragraph 14.02.D.4 of these Supplementary Conditions.

6.03. Add the following new paragraph immediately after Paragraph 6.03.C:

6.03.D. Domestic Manufacture:

6.03.D.1. All equipment to be furnished and components of all items specified herein, except bearings, shall be of domestic produce, manufacture and assembly, i.e., manufactured and assembled within the limits of the United States. Parts must be available from suppliers that manufacture components in the USA. The Board reserves the right to waive this requirement if, in the opinion of the Engineer, it appears to be in the best interests of the Board.

6.03.D.2. Sewerage and Water Board staff will determine the ability of the lowest bidder to design and build the equipment and machinery specified hereon. Along with other factors to be considered by Sewerage and Water Board staff will be the manufacturer's facilities, listings of similar equipment and installations, equipment reliability and longevity. Should the lowest bidder be found "non-responsive", then an informal hearing will be held to provide the lowest bidder the opportunity to refute the reasons for disqualification.

SC-6.05. Add the following language at the end of Paragraph 6.05.E: Reimbursement rates for Engineer or their officers, directors, members, partners, employees, agents, and other consultants and subcontractors for evaluation of proposed substitutes shall be on the basis established in Paragraph 14.02.D.4 of these Supplementary Conditions. SC-6.06. Add the following new paragraph immediately after Paragraph 6.06.G:

6.06.H. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier. SC-6.08. Add the following language:

6.08 Permits:

A. Before commencing work, the Contractor shall obtain, at his own expense, any required permits from the City of New Orleans. The Contractor shall also secure, at his own expense, any necessary inspection certificates required after the work is completed.

B. Evidence of compliance shall be furnished to the Board prior to starting work, in the case of permits, or within 10 calendar days after completion of that work requiring inspection certificates.

SC-6.11. Add the following language to the end of Paragraph 6.11.A.1: Contractor shall not enter upon nor use property not under Owner control until appropriate easements have been executed and a copy is on file at the Site.

SC-6.13. Add the following new paragraphs immediately after 6.13.C:

6.13.C.1. The Owner's Safety Orientation Notice is applicable to the Work and is appended to these Supplementary Conditions.

6.13.C.2. The Owner's Drug-Free Workplace Policy is applicable to the Work and is appended to these Supplementary Conditions.

6.13.C.3. Owner's Safety Clearance Procedure

Definitions:

Operator: The Board employee who is onsite and in responsible charge of the operation of the plant, station, or other facility.

Out of Service: The electrical/mechanical disconnection of equipment which is to remain inoperable.

Power Dispatcher: The shift employee on duty at Central Control at the time safety clearance occurs.

Signee: The person who actually tags-out equipment for safety clearance.

Supervisor/Foreman: The Board employee who is the supervisor/foreman in responsible charge of the repair/maintenance of one or more work locations which requires safety clearance. This person may not necessarily be "onsite" at any particular location.

Tag-out: The physical tagging of equipment by an operator for the purpose of disabling equipment.

Lock-out: The physical locking of equipment by an operator for the purpose of disabling equipment.

General Provisions

- 1) All equipment repair/maintenance work which is scheduled and requires safety clearance should be presented to Central Control at the beginning of each work day by the supervisor/foreman/electrical engineer in charge of the repair/maintenance. Twenty four (24) hour advance notice of scheduled work for major outages is desirable; however, it is understood that due to the nature of the services provided by the Board this preferred notice may not be possible for every safety clearance.
- 2) In cases where two or more crafts are working on, or require safety clearance on the same equipment, the supervisor/foreman/electrical engineer for each craft must follow the appropriate safety clearance procedure and the equipment must be tagged out for each craft's signee. No equipment can be tested and/or restored to service until all tags have been removed in accordance with the tag removal procedure.
- 3) When an operator requests service for equipment at an unmanned facility, i.e. an unmanned sewer station or unmanned underpass station, from either Electrical Maintenance or Mechanical Maintenance, the appropriate maintenance department shall request the responsible operator to tag-out the equipment. When the appropriate maintenance department, in

the course of servicing this equipment, requires restoration of power, the appropriate maintenance department shall contact the responsible operator directly (if operator is present) or by radio or telephone (if operator is absent) and request that the responsible operator grant his permission. If the power is to be restored for only a short duration, the appropriate maintenance department shall thereafter contact the operator for permission to either remove power or restore power, as often as needed. The operator shall log each request. If the request to restore power is for a short duration only, and the operator does not received contact from the appropriate maintenance personnel to remove power again, the operator shall make every attempt to contact the appropriate maintenance personnel in order to ensure that no accident has occurred.

- 4) If equipment must remain "Out of Service" upon completion of the onsite work, the signee must request their tag be replaced with an "Out of Service" tag in the name of their department: e.g. "Out of Service Electrical Maintenance", in addition it must be physically locked-out by that department. However the "Out of Service" tag does not relinquish the responsibility of following the safety clearance procedure each day that piece of equipment is worked on.
- 5) Any equipment restored to service after being tagged "Out of Service" must be tested through operational test procedures. The signee must remain, when possible, on-site until testing is complete.
- 6) Any individual involved in these procedures may halt the procedure at any time if it is felt the safety of the personnel and/or equipment warrants said stoppage, or if conditions within the system change that may require postponement of the work.
- 7) In the event the responsible person, signee, leaves the job site without releasing the cleared equipment and is unreachable to release their tag-out the following procedure must be enacted before the signees name, tag-out, can be removed from the cleared equipment.
 - a) Cause must be established by the senior power dispatcher giving reason to remove the tag-out.
 - b) Senior power dispatcher must receive orders from the Chief of Operations or higher, in his absence, to remove said tag-out.
 - c) Concurrence given by a senior representative of the following:
 - Department or company to which the signee works for.
 - Senior representative of the plant, station, facility in which the tagout occurs.
 - If jobsite is in the field then, inspection by Electrical Engineering assuring work has halted for the day.
 - d) Once all areas have been satisfied then the senior power dispatcher may have the signees tag-out

NOTE: The above and following procedures may be deviated from above at the discretion of the power dispatcher in cases of emergency.

SC-6.11. Add the following language to the end of Paragraph 6.11.D:

6.11.D. Water and Other Utilities. It is the responsibility of the Contractor to make all necessary arrangements for the provision of water, electricity, drainage, sanitary sewage disposal, gas, compressed air, and any other utility service required to prosecute the work of this contract. Water used by the Contractor at the job site will be furnished by the Board at no cost to the Contract, if conditions permit. Costs of all other services shall be borne by the Contractor.

6.11.E. *Hydrant Connections*. Connections to fire hydrants shall only be made with meters obtained from the Sewerage and Water Board Customer Service Department, 504-585-2097, which shall record water usage for record purposes and which shall be returned to the Board as a condition of acceptance of the Contract. Application for the meter requires a \$1,500.00 deposit that is refundable upon return of the meter in undamaged and operable condition. The hydrant meter application and instructions are available on the Sewerage and Water Board website: https://www.swbno.org/custserv_information_docs.asp. SC-6.17. Add the following new paragraphs immediately after Paragraph 6.17.E.1:

- 6.17.E.2. Contractor shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than the number of submittals specified in Paragraph 14.02.D.4 of these Supplementary Conditions. Engineer will record time for reviewing subsequent submittals of Shop Drawings, Samples, or other items requiring approval and Contractor shall reimburse Owner for Engineer's charges for such time in accordance with Paragraph 14.02.D.4 of these Supplementary Conditions.
- 6.17.E.3. In the event Contractor requests a substitution for a previously approved item, Contractor shall reimburse Owner for Engineer's charges for such time, unless the need for such substitution is beyond the control of Contractor.
- SC-7.02. Delete Paragraphs 7.02.A and 7.02.B in their entirety and insert the following in their place:
- 7.02.A. Owner intends to contract with others for the performance of other work on the Project at the Site. The authority and responsibility of the Construction Coordinator for the various prime contractors, utility owners, and Owner (if present at the Site) shall be as follows:
- 7.02.A.1 Owner's Representative: Shall have authority and responsibility for coordination of the various contractors at the Site. Owner's Representative shall be named by the Owner if necessary.
- 7.02.A.2. Specific matters to be covered by such authority and responsibility: Prioritization of work activity should conflicts occur in work areas between contractors or between contractor and Owner's operations; approval of requests to curtail, interrupt, or otherwise disrupt Owner operation to allow Contractor work to be scheduled and/or occur; cancellation of scheduled Contractor activity in the event Owner requirements supersede prior plans; other issues that require approval or prioritization relative to interference with Owner operations or conflicts with other.
- 7.02.A.3. Extent of such authority and responsibility: Owner's Representative decision and direction to Contractor shall be final. Planning and discussions to coordinate options relative to operational disruptions requested by Contractor will be scheduled by Owner's Representative. Owner's Representative will review and respond to requests by the Contractor for outage, interconnection, operational disruption, contract activity prioritization, or the like, within 10 business days.
- 7.02.A.4. Limitations of such authority and responsibility: Owner's Representative may not modify the Contract or its terms and conditions.
- 7.02.B. Unless expressly assigned to the Construction Coordinator, all other authority and responsibility will remain vested with each prime contractor, utility owner, or Owner (if present at the Site).
- SC-7.04. Add the following new paragraph immediately after Paragraph 7.03:
- SC-7.04. Claims Between Contractors
- 7.04.A. Should Contractor cause damage to the work or property of any other contractor at the Site, or should any claim arising out of Contractor's performance of the Work at the Site be made by any other contractor against Contractor, Owner, Engineer, or the Construction Coordinator, if applicable, Contractor shall (without involving Owner, Engineer, or Construction Coordinator) either i) remedy the damage; ii) agree to compensate the other contractor for remedy of the damages; or iii) remedy the damages and attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or at law.
- 7.04.B. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, the Construction Coordinator (if applicable) and the officers, directors, members, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all Claims, costs, losses and damages (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any other contractor against Owner, Engineer, their officers, directors, members, partners, employees, agents, and other consultants and subcontractors, or the Construction Coordinator (if applicable) to the extent said Claim is based on or arises out of Contractor's performance of the Work. Should another contractor cause damage to the Work or property of Contractor or should the performance of work by any other contractor at the Site give rise to any other Claim, Contractor shall not institute any action, legal or equitable, against Owner, Engineer, or the Construction Coordinator (if applicable) or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from Owner, Engineer, or the Construction Coordinator (if applicable) on account of any such damage or Claim.
- 7.04.C. If Contractor is delayed at any time in performing or furnishing the Workby any act or neglect of another contractor, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, Contractor may make a Claim for an extension of times in accordance with Article 12. An extension of the Contract Times shall be Contractor's exclusive remedy with respect to Owner, Engineer, and Construction Coordinator (if applicable) for any delay, disruption, interference, or hindrance caused by any other contractor. This paragraph does not prevent recovery from Owner, Engineer, or Construction Coordinator (if applicable) for activities that are their respective responsibilities.
- SC-8.02. Delete Paragraph 8.02.A in its entirety and replace with the following:

- 8.02.A. In case of termination of the employment of Engineer, Owner shall appoint an Engineer whose status in the Contract Documents shall be that of the former Engineer.
- SC-8.06. Delete Paragraph 8.06.A in its entirety.
- SC-8.11. Delete Paragraph 8.11.A in its entirety.
- SC-9.03. Add the following new paragraphs immediately after Paragraph 9.03.A:
- 9.03.B. Resident Project Representative (RPR) will be furnished by Owner. The responsibilities, authority, and limitations of the RPR are limited to those of Engineer in accordance with Paragraph 9.09 and as set forth elsewhere in the Contract Documents and are further limited and described below.
- 9.03.C. Responsibilities and Authority:
- 9.03.C.1. Schedules: Review and monitor Progress Schedule, Schedule of Submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
- 9.03.C.2. Conferences and Meetings: Conduct or attend meetings with Contractor, such as preconstruction conferences, progress meetings, Work conferences and other Project related meetings.
- 9.03.C.3. Liaison: (i) Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative, and assist in understanding the intent of the Contract Documents; (ii) assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's onsite operations; (iii) assist in obtaining from Owner additional details or information when required for proper execution of the Work.
- 9.03.C.4. Interpretation of Contract Documents: Inform Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
- 9.03.C.5. Submittals: Receive submittals that are furnished at the Site by Contractor, and notify Engineer of availability for examination. Advise Engineer and Contractor of the commencement of any Work or arrival of materials and equipment at Site, when recognized, requiring a Shop Drawing or Sample if the submittal has not been approved by Engineer.
- 9.03.C.6. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and provide recommendations to Engineer; transmit to Contractor, in writing decisions as issued by Engineer.
- 9.03.C.7. Review of Work and Rejection of Defective Work: (i) Conduct onsite observations of the Work in progress to assist Engineer in determining if the Work is, in general, proceeding in accordance with the Contract Documents; (ii) inform Engineer and Contractor whenever RPR believes that any Work is defective; (iii) advise Engineer whenever RPR believes that any Work will not produce a completed Project that conforms generally to the Contract Documents or will imperil 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 the Work in progress that RPR believes should be corrected or rejected or uncovered for observation, or requires special testing, inspection, or approval.
- 9.03.C.8. Inspections, Tests, and System Startups: (i) Verify tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof; (ii) observe, record, and report to Engineer appropriate details relative to the test procedures and system startups; and (iii) accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to Engineer.
- 9.03.C.9. Records: (i) Maintain records for use in preparing Project documentation; (ii) keep a diary or log book recording pertinent Site conditions, activities, decisions and events; (iii) record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of Contractors, Subcontractors, and major Suppliers of materials and equipment.
- 9.03.C.10. 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.
- 9.03.C.12. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify materials and equipment certificates and operation and maintenance manuals and other data required by 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 been delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work. 9.03.C.13. Completion: (i) Participate in a Substantial Completion inspection; assist in determination of Substantial Completion and the preparation of lists of items to be completed or corrected; (ii) Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied; and (iii) observe whether items on final list have been completed or corrected, and make recommendations to Engineer concerning acceptance.
- 9.03.D. Limitations of Authority: Resident Project Representative will not:

- 9.03.D.1. have authority to authorize a deviation from Contract Documents or substitution of materials or equipment, unless authorized by Engineer; or
- 9.03.D.2, exceed the limitations of Engineer's authority as set forth in Contract Documents; or
- 9.03.D.3. undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor's authorized representative; or
- 9.03.D.4. advise on, issue directions relative to, or assume control over an aspect of the means, methods, techniques, sequences, or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents; or
- 9.03.D.5 advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor; or
- 9.03.D.6. participate in specialized field or laboratory tests or inspections conducted offsite by others, except as specifically authorized by Engineer; or
- 9.03.D.7. accept Shop Drawings or Samples from anyone other than Contractor; or
- 9.03.D.8. authorize Owner to occupy the Project in whole or in part.
- SC-9.09. Add the following new paragraph immediately after Paragraph 9.09.E:
- 9.09.F. Contractors, Subcontractors, Suppliers, and others on the Project, or their sureties, shall maintain no direct action against Engineer, its officers, employees, affiliated corporations, and subcontractors, for any Claim arising out of, in connection with, or resulting from the engineering services performed. Only the Owner will be the beneficiary of any undertaking by Engineer.
- SC-10.05. Delete Paragraphs 10.05.C through 10.05.E in their entirety and insert the following in their place and renumber Paragraph 10.05.F to read 10.05.D:
- 10.05.C. Engineer's Action and Executive Negotiation:
- 10.05.C.1. Engineer's Action:
- 10.05.C.1.a. Engineer will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. Engineer's written decision on such Claim, dispute or other matter will be final and binding upon Owner and Contractor, unless within 10 days after issuance of Engineer's written decision, either party appeals the decision by giving the other party and Engineer written notice of request for executive negotiation.
- 10.05.C.1.b. In the event Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied. 10.05.C.2. Executive Negotiation:
- 10.05.C.2.a. Within 10 days of the delivery of notice of appeal to Engineer's written decision regarding Claim, dispute or other matter, senior representatives of at least Owner and Contractor, having authority to settle the dispute, and Engineer shall meet at a mutually acceptable time and place, and thereafter as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the dispute.
- 10.05.C.2.b. In the event a mutually acceptable decision cannot be reached through executive negotiation within 20 days of the appealing party's notice, or mutually agreeable longer period, or if the party receiving such notice will not meet within 10 days, Owner or Contractor may make a written declaration, delivered to the other party and Engineer, that the executive negotiation is deemed unsuccessful and may initiate further dispute resolution measures in accordance with Article 16. 10.05.C.2.c. If no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to further appeal Engineer's written decision shall be delivered by Owner or Contractor to the other and to Engineer within 30 days after the date upon which the executive negotiation has been declared unsuccessful, or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by Owner and Contractor), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.
- SC-11.01. Delete Paragraph 11.01.A.5.c in its entirety and insert the following in its place:
- 11.01.A.5.c. Construction Equipment and Machinery:
- 11.01.A.5.c(1) Rentals of construction equipment and machinery, and the parts thereof 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. 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.
- 11.01.A.5.c(2) Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment in the Rental Rate Blue Book published by Equipment Watch. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of such

equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools.

SC-11.01. Add the following language to the end of Paragraph 11.01.A.5.h: Express and courier services must be approved

SC-11.01. Delete Paragraph 11.01.C in its entirety.

SC-11.02. Delete Paragraph 11.02 in its entirety.

SC-12.01. Add the following language to the end of Paragraph 12.01.C.2.c: except, the maximum total allowable cost to Owner shall be the Cost of the Work plus a maximum collective aggregate fee for Contractor and tiered Subcontractors of 20 percent;

SC-12.01. Add the following new paragraph immediately after Paragraph 12.01.C:

12.01.D. Right to Audit: The Contractor will submit to any SWBNO audit, inspection, and review and, at the SWBNO's request, will make available all documents relating or pertaining to this Contract maintained by or under the control of the Contractor, its employees, agents, assigns, successors and subcontractors, during normal business hours at the Contractor's office or place of business in Louisiana. If no such location is available, the Contractor will make the documents available at a time and location that is convenient for the SWBNO. Administrative and financial records shall be made and kept by the contractor in accordance with generally accepted accounting principles and practices. Records shall include, but are not limited to, accounting records, daily reports, change order requests, correspondences and subcontract files (hard copies as well as computer readable data, if it can be made available). Records must be retained and made available upon request for a minimum of five (5) years following completion or formal acceptance of the contracted project. The Contractor will abide by all provisions of City Code § 2-1120, including but not limited to City Code § 2-1120(12), which requires the Contractor to provide the Office of Inspector General with documents and information as requested. Failure to comply with such requests shall constitute a material breach of the Contract. The Contractor agrees that it is subject to the jurisdiction of the Orleans Parish Civil District Court for purposes of challenging a subpoena. SC-13.03. Delete Paragraph 13.03.B in its entirety and insert the following in its place:

13.03.B. Contractor shall employ an independent testing laboratory or testing agency and shall be responsible for arranging and shall pay for specified tests, inspections, and approvals required for Owner's and Engineer's acceptance of the Work at the Site except:

13.03.B.1. costs incurred in connection with tests or inspections pursuant to Paragraph 13.04 shall be paid for as provided in said paragraph; and

13.03.B.2. as otherwise specifically provided in the Contract Documents.

SC-13.03. Add the following language at the end of Paragraph 13.03.D: Tests required by Contract Documents to be performed by Contractor that require test certificates be submitted to Owner or Engineer for acceptance shall be made by an independent testing laboratory or agency licensed or certified in accordance with Laws and Regulations and applicable state and local statutes. In the event state license or certification is not required, testing laboratories or agencies shall meet the following applicable requirements:

13.03.D.1. Basic requirements of ASTM E329, "Standard Specification for Agencies Engaged in Construction Inspection, Special Inspection, or Testing Materials used in Construction" as applicable.

13.03.D.2. Calibrate testing equipment at reasonable intervals by devices of accuracy, traceable to the National Institute of Standards and Technology or accepted values of natural physical constants.

SC-14.02. Delete Paragraph 14.02.C.1 in its entirety and insert the following in its place:

14.02.C.1. Forty-Five 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.

SC-14.02. Add the following new paragraph(s) immediately after Paragraph 14.02.D.3:

14.02.D.4. Items entitling Owner to retain set-offs from the amount recommended,

including but not limited to:

14.02.D.4.a. Owner compensation to Engineer at an estimated average rate of \$150 per each extra personnel hour for labor plus expenses, if applicable, because of the following Contractor-caused events:

14.02.D.4.a.(2). return visits to manufacturing facilities to witness factory testing or retesting;

14.02.D.4.a.(3). Submittal review in excess of two reviews by Engineer for substantially the same submittal, in accordance with Paragraphs 6.17.E.2 and 6.17.E.3 of these Supplementary Conditions:

14.02.D.4.a.(4). evaluation of proposed substitutes and making changes to Contract Documents occasioned thereby, in accordance with Paragraph 6.05.E of these Supplementary Conditions;

14.02.D.4.a.(5). Overtime worked by Contractor necessitating Engineer, and their officers, directors, members, partners, employees, agents, and other consultants and subcontractors of each, Resident Project Representative or Resident Project Representative's Site staff, if any, to work extraordinary overtime in accordance with Paragraph 6.02.C. of these Supplementary Conditions.

14.02.D.4.b. Liability for liquidated damages incurred by Contractor as set forth in the Agreement.

SC-14.06. Add the following new paragraph immediately after Paragraph 14.06.A:

14.06.B. In accordance with Louisiana Statute 38:2248, punch lists will include cost estimate for each item of work identified by Engineer based on mobilization, labor, materials, and equipment costs of correcting each punch list item.

Completed punch list items will be paid upon expiration of 45-day lien period.

SC-14.07. Delete Paragraph 14.07.C.1 in its entirety and insert the following in its place:

14.07.C.1. Forty-five days after presentation to Owner of the final 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. The percentage of the value of the work done, as stated in Paragraph 14.02.A.3 of the General Conditions, will be withheld by the Board for a period of not less than forty-five (45) consecutive calendar days after the contract has been accepted by the Board, and such acceptance has been recorded in the Office of the Recorder of Mortgages for the Parish of Orleans. At the end of the forty-five (45) day period, the percentage withheld by the Board, will be paid to the Contractor, less any sums that may be legally deducted under any provisions of this contract, upon the Contract or furnishing the Board with a certificate from the Recorder of Mortgages for the Parish of Orleans, certifying that the contract is clear of all liens and privileges.

SC-14.10. Add the following new paragraph immediately Paragraph 14.09.2:

SC-14.10 *Maintenance Period*. The maintenance period under this contract, except as otherwise specifically provided for herein, shall be for a period of forty-five (45) consecutive calendar days beginning from the day after the contract has been accepted by the Board, and such acceptance has been recorded in the Office of the Recorder of Mortgages for the Parish of Orleans. During the maintenance period the Contractor will repair, at his own expense, all defects in the work that may arise, to the satisfaction of the Engineer. The Contractor shall restore all surfaces for which he is responsible under the specifications, whether unimproved, partially improved, or paved surfaces (See Section B of the General Specifications), and maintain them in good condition to the satisfaction of the Engineer. If the Contractor should fail or refuse to repair, at his own expense, any defects in structures or surfaces developing before the expiration of the aforesaid forty-five (45) days or to adjust satisfactorily any claims for damages to public or private property, the Board shall have the right to continue to hold the retainer and to make the necessary repairs and to satisfy the claims for damages, by such means as the Board shall elect, and to reimburse itself for the cost of these repairs and satisfied claims, out of the said retainer. Any surplus of this retainer will then be paid the Contractor, under the conditions above stated, any deficiency shall be made good by the surety.

SC-15.03.A. Delete the first sentence of Paragraph 15.03.A in its entirety and insert the following in its place: Upon 7 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 or any portion of the Contract.

SC-15.04. Delete Paragraph 15.04 in its entirety.

SC-16.01. Delete Paragraph 16.01 in its entirety and insert the following in its place:

SC-16.01 Meet to Confer and Negotiate

16.01.A. Engineer's action under Paragraph 10.05.C shall become final and binding 30 days after receipt of written notice of Engineer's action or decision unless, within that time period, Owner or Contractor gives to the other party written notice of intent to submit the Claim to a process of bilateral negotiations as set forth below.

16.01.B. Within 30 days of the delivery of such notice, Owner and Contractor shall meet and confer regarding the Claim. A good-faith effort to negotiate resolution shall be made by both parties.

16.01.C. If the negotiations contemplated by Paragraph SC-16.01.B are unsuccessful, management representatives of Owner and Contractor at least one

tier above the individuals who met under SC-16.01.B shall meet, confer, and negotiate within 30 days of the closure of the unsuccessful negotiations.

16.01.D. If the Claim is not resolved by negotiation, Engineer's action under Paragraph 10.05.C shall become final and binding 30 days after termination of the negotiations unless, within that time period, Owner or Contractor:

16.01.D.1. gives to the other party written notice of intent to submit the Claim to a court of competent jurisdiction; or 16.01.D.2. agrees with the other party to submit the Claim to another dispute resolution process.

16.01.E. Notwithstanding any applicable statute of limitations, a party giving notice under Paragraph SC-16.01.D.1 shall commence an action on the Claim within 1 year of giving such notice. Failure to do so shall result in the Claim being time-barred and Engineer's action or denial shall become final and binding.

SC-17.05. Delete Paragraph 17.05 and insert the following in its place: 17.05. Controlling Law and Jurisdiction

A. This Contract is to be governed by the laws of the State of Louisiana B. Contractor hereby consents and yields to the jurisdiction of the Civil District Court for the Parish of Orleans and does hereby formally waive any pleas of jurisdiction on account of residence elsewhere.

END OF SECTION

Attachment 1 - Sewerage and Water Board of New Orleans
Drug - Free Work Place Policy
Contractor Requirements
Page 1 of 3

ATTACHMENT TO GENERAL SPECIFICATIONS STATEMENT OF POLICY

It is the policy of the Sewerage and Water Board of New Orleans that all work places associated with its operation, maintenance, improvements, and expansion be kept drug free. In order to insure this, the Sewerage and Water Board has

approved the following drug testing policy to be implemented on this contract.

NOTICE

The contractor shall notify all personnel to be employed on this contract that they must submit to drug testing upon the occurrence of any accident, injury, or unsafe and hazardous incident which involves them. Agreement to submit to such drug testing shall be required for the employment of all personnel under this contract.

PENALTIES

Any employee who refuses to agree to testing under this policy or who refuses to be drug tested after the occurrence of any accident, injury or unsafe and hazardous incident which involves them, or who fails to report any such accident, injury or incident within twenty-four (24) hours of its occurrence, shall be deemed incompetent under Paragraph 47 of the General Specifications. Any employee found to have a positive test result after his conformational testing shall be deemed incompetent under Paragraph 47 of the General Specifications. Any employee deemed incompetent under these provisions shall be removed by the contractor from work under this contract and any other current Board contract.

TESTING PROCEDURE

The contractor shall while performing this contract, require any of its employees who are involved in an accident, injury or unsafe and hazardous incident while in the course and scope of their employment, whether vehicular or non-vehicular in nature, to be tested for blood alcohol or drug levels through a laboratory approved by the National Institute for Drug Abuse. Said employee shall provide a testing sample as soon as possible after such accident, injury or incident, but no longer than twenty-four (24) hours from the time of the occurrence. The contractor shall provide copies of the results of the initial testing on the samples involved to the Risk Manager of the Sewerage and Water Board of New Orleans as soon as such results are known. If the initial testing reveals a positive result, the contractor shall forward the remainder of the original testing sample to a second, conformational testing. The Sewerage and Water Board of New Orleans shall consider any result to be positive if it indicates any level which exceeds the levels set forth as follows:

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Drug-Free Workplace Policy Page 2 of 3

CUT-OFF LEVELS INDICATING POSITIVE TEST RESULTS

The following initial cut-off levels shall be used when screening specimens to determine whether negative or positive:

Maniiyana matahalitaa	<u>Initial Test Level (ng/ml)</u>
Marijuana metabolites	50
Cocaine metabolites	300
Opiate metabolites	300
Phencyclidine (PCP, etc.)	25
Amphetamines	1000
Alcohol .05 % by weight based on grams of alcohol per 100cc of blood	
LSD	150
Barbiturates	300
Benzodiazepines	300
Quantitative GC/MS confirmation procedures at the following cut-off value be used for the following drugs:	es shall
Confirmatory Test Level (ng/ml)	
Marijuana metabolites*	10
Cocaine metabolites**	150
Opiates (Morphine, Codeine)	150
Phencyclidine (PCP, etc.)	25
Amphetamines (amphetamine, Methamphetamine)	300
LSD	150
Barbiturates	300
Benzodiazepines 300 * Delta-9-Tetrahydrocannabinol - 9-Carboxylic Acid ** Benzoylecgonine	
	VB DRUG - FREE WORK PLACE POLICY

SWB DRUG - FREE WORK PI 00 73 00 ATTACHMENT 1 - 3

Drug-Free Workplace Policy Sheet 3 of 3

The contractor shall choose the laboratory to be used for drug testing, and shall identify such laboratory to the Risk Manager of the Sewerage and Water Board prior to receiving approval to start work. All laboratories shall be approved by the National Institute for Drug Abuse.

The contractor shall notify the Board's Risk Manager immediately of the results of any conformational testing.

The Contractor's Senior Project Superintendent working in consultation and conjunction with the Board's Risk Manager and the Board's Engineer, shall determine whether an accident, injury or unsafe or hazardous incident occurred. The Safety Department of the Sewerage and Water Board reserves the right to investigate any such matter and make a complete report to the Executive Director of the Sewerage and Water Board whose decision shall be final.

The Sewerage and Water Board shall not be liable for any cause of action of any employee of the contractor brought against the contractor as a result of this policy. The Sewerage and Water Board shall not be liable for the contractor's failure to

stipulate adherence to the terms and conditions of this drug testing policy as a condition of employment of any employee on this contract. The Board shall not release the contractor from his responsibilities under the policy unless failure to

adhere to the conditions of this policy shall be a direct result of any action taken by the Board.

These requirements shall be acknowledged by signature of the contractor's authorized representative in the space provided in the "Form of Proposal".

Attachment 2 - Safety Orientation Notice

Welcome

We welcome you to the S&WB and request your assistance in maintaining our Safety Standards. For the safety of yourself and everyone working at the S&WB, you are asked to observe the following safety precautions. When this notice has been read thoroughly, a senior representative of your company is required to distribute this information to all employees who will be affected. You may call the Board's Risk Management Department at (504) 585-2382 if you have any questions.

Basic

- 1. Smoking will be allowed in designated areas only.
- 2. Horseplay, practical joking and fighting are positively prohibited.
- 3. The use or possession of illegal drugs or intoxicating beverages is strictly prohibited on all S&WB property.
- 4. Housekeeping is a must. We will keep our area safe and free from litter and expect you do to the same.
- 5. Handrails must always be used when going up and down ladders or stairs.
- 6. When working in confined spaces, the contractor must be in full compliance with Occupational Safety and Health Administration (OSHA) Standard # 29CFR 1910.146 at all times.

Atmospheric conditions such as adequate ventilation, the presence of oxygen and the absence of explosive gases must be assured before working in voids, tanks, or other enclosed spaces.

7. Radios must be turned off.

Emergency

- 8. The S&WB Emergency Response Plan is a document, which provides specific notification instructions to be followed in case of hazardous material spills. The Board's Environmental Affairs Office phone number is 942-3855 during normal business hours 7:30 a.m. to 4:00 p.m.
- 9. The Board's 24-hour emergency lines are (504) 529-2837 and 865-0575 (Central Control Dispatcher, Carrollton Plant.)
- 10. Since Board contracts are performed under various circumstances at various locations, prior to beginning any work, the contractor should consult with the Board employee who is responsible for monitoring the contract in order to establish the most effective procedures for handling emergencies.

Transportation

Warning signals and lights shall be used as follows:

- 11. Rotating beacons shall be used if your vehicle is so equipped.
- 12. Tail lights / emergency flashers shall be used.
- 13. Orange reflector type safety cones shall be placed to give other motorists warning.
- 14. If vehicle is moving, backing, or parking, proper traffic control shall be exercised.

Protective Clothing and Equipment

15. All personnel who are exposed to eye hazards will wear safety glasses. Hard hats will be worn

at all times while an employee is in the immediate vicinity of overhead hazards or while operating heavy equipment without a Rollover Protection Device.

16. Protective clothing and equipment such as rubber aprons and gloves, eye and face protection, approved respirators or dust masks will be worn when handling all harmful chemicals.

Reporting

- 17. Defective equipment, machinery, hazardous conditions, or unsafe work practices or conditions shall be reported immediately to your Supervisor / Foreman who will then contact proper S&WB personnel for corrections.
- 18. All injuries will be reported to the Risk Manager, (504) 585-2422, or to the Safety Unit, (504) 585-2522, regardless of how minor an injury may seem.
- 19. S&WB employees may hold safety meetings to discuss and promote safe working conditions and accident prevention. You may be asked to attend.

Work Smart

- 20. Stay alert at all times, know what is going on around you. Know the safe operating procedures concerned with your assigned duties. When your duties may influence the safety of Board employees, notify the employees and their supervisors first.
- 21. Vendor / Contractors shall at all times demonstrate strict compliance with all Federal, State and Local regulations regarding safety, including but not limited to, all relevant Department of Environmental Quality (DEQ), Department of Transportation (DOT), Environmental Protection Agency (EPA), and Occupational Safety and Health Act (OSHA) regulations.
- 22. The Vendor / Contractor will at the request of the Risk Manager and/ or Safety Manager remove any of his employees found to be creating or contributing to unsafe conditions.
- 23. The following items are not allowed on any S&WB Facility or jobsite:
- Firearms and Ammunition
- Alcohol and illegal drugs

ATTACHMENT 3 Sewerage and Water Board of New Orleans Electrical Safety Clearance Procedure

Definitions:

Operator: The Board employee who is on-site and in responsible charge of the operation of the plant, station, or other facility.

Out of Service: The electrical/mechanical disconnection of equipment which is to remain inoperable.

Power Dispatcher: The shift employee on duty at Central Control at the time safety clearance occurs.

Signee: The person who actually tags-out equipment for safety clearance.

Supervisor/Foreman: The Board employee who is the supervisor/foreman in responsible charge of the repair/maintenance of one or more work locations which requires safety clearance. This person may not necessarily be "on-site" at any particular location.

Tag-out: The physical tagging of equipment by an operator for the purpose of disabling equipment.

Lock-out: The physical locking of equipment by an operator for the purpose of disabling equipment.

General Provisions

- 1) All equipment repair/maintenance work which is scheduled and requires safety clearance should be presented to Central Control at the beginning of each work day by the supervisor/foreman/electrical engineer in charge of the repair/maintenance. Twenty four (24) hour advance notice of scheduled work for major outages is desirable; however, it is understood that due to the nature of the services provided by the Board this preferred notice may not be possible for every safety clearance.
- 2) In cases where two (2) or more crafts are working on, or require safety clearance on the same equipment, the supervisor/foreman/electrical engineer for each craft must follow the appropriate safety clearance procedure and the equipment must be tagged out for each craft's signee. No equipment can be tested and/or restored to service until all tags have been removed in accordance with the tag removal procedure.
- 3) When an operator requests service for equipment at an unmanned facility, i.e. an unmanned sewer station or unmanned underpass station, from either Electrical Maintenance or Mechanical Maintenance, the appropriate maintenance department shall request the responsible operator to tag-out the equipment. When the appropriate maintenance department, in the course of servicing this equipment, requires restoration of power, the appropriate maintenance department shall contact the responsible operator directly (if operator is present) or by radio or telephone (if operator is absent) and request that the responsible operator grant his permission. If the power is to be restored for only a short duration, the appropriate maintenance department shall thereafter contact the operator for permission to either remove power or restore power, as often as needed. The operator shall log each request. If the request to restore power is for a short duration only, and the operator does not received contact from the appropriate maintenance personnel to remove power again, the operator shall make every attempt to contact the appropriate maintenance personnel in order to ensure that no accident has occurred.
- 4) If equipment must remain "Out of Service" upon completion of the on-site work, the signee must request their tag be replaced with an "Out of Service" tag in the name of their department: e.g. "Out of Service Electrical Maintenance", in addition it must be physically locked-out by that department. However the "Out of Service" tag does not relinquish the responsibility of following the safety clearance procedure each day that

piece of equipment is worked on.

- 5) Any equipment restored to service after being tagged "Out of Service" must be tested through operational test procedures. The signee must remain, when possible, on-site until testing is complete.
- 6) Any individual involved in these procedures may halt the procedure at any time if it is felt the safety of the personnel and/or equipment warrants said stoppage, or if conditions within the system change that may require postponement of the work.
- 7) In the event the responsible person, signee, leaves the job site without releasing the cleared equipment and is unreachable to release their tagout the following procedure must be enacted before the signees name, tag-out, can be removed from the cleared equipment.
 - 1) Cause must be established by the senior power dispatcher giving reason to remove the tag-out.
 - 2) Senior power dispatcher must receive orders from the Chief of Operations or higher, in his absence, to remove said tag-out.
 - 3) Concurrence given by a senior representative of the following:
 - a) Department or company to witch the signee works for.
 - b) Senior representative of the plant, station, facility in which the tagout occurs.
 - c) If job site is in the field then, inspection by Electrical Engineering assuring work has halted for the day.

Once all areas have been satisfied then the senior power dispatcher may have the signees tag-out removed.

NOTE: The above and following procedures may be deviated from above at the discretion of the power dispatcher in cases of emergency.

Safety Clearance Procedure 25 Hertz System "Non-Sewerage and Water Board Personnel"

1) The Company or responsible person representing that company shall first contact Electrical Engineering in regards to their outage request. Electrical Engineering will dispatch personnel to the job site and identify all equipment within close proximity to the work which should be cleared for safety.

NOTE: After normal working hours clearance request will be routed through Central Control who will notify the proper personnel in Electrical Engineering. It will be the responsibility of Electrical Engineering to identify said feeders.

- 2) Eletrical Engineering will then contact the power dispatcher informing them of; the company, the person supervising the work, the work to be performed, and supplies the power dispatcher with a clearance list.
- 3) Electrical Engineering will then direct the company's signee to personally appear at any Board facility involved in the clearance prior to the request. Upon arrival at a Board facility the signee will contact the power dispatcher making their clearance request.

- 4) The power dispatcher reviews their one line schematics for any additional equipment they feel is required for safety.
- 5) If the request involved equipment within a station or facility the power dispatcher then notifies the operator of the work to be performed and supplies the operator with a list of the clearance request.
- 6) The operator makes a visual inspection of the work site and adds to the clearance list any additional equipment which they note as being involved in or in close proximity to the work site. A finalized clearance list is then agreed upon by all parties involved.
- 7) The power dispatcher, with assistance from other operating personnel as required and through normal operating procedures, will disconnect from all power sources all equipment on the finalized list.
- 8) After the completion of step seven (7), with the company's signee at a Board facility, the company's signee will be notified of the disconnection of the equipment by the power dispatcher. The company's signee will request the operator at each location to place a tag-out with the company name/signee's name on each piece of equipment on the clearance list.
- 9) After receiving a tag-out report from the operators, the power dispatcher will then verify the tag-out reports against their finalized clearance list. If satisfactory, the power dispatcher will verify with the company's signee what was tagged-out. The company's signee will then be allowed to begin work.
- 10) At this point prior to the beginning of any actual work it is the responsibility of the person or persons performing the work to check the equipment with a voltage tester. If all voltage testing is satisfactory, "no voltage", work may begin.

NOTE: Due to the nature of some work it may be necessary that voltage be present.

- 11) Upon completion of the on-site work, the company's signee must report to a Board facility, involved in the clearance. At this point the company's signee will request the operator at each location to remove their tag-out with the company name/signee name off each piece of equipment. The operator and power dispatcher may restore the equipment to its connected position and test same following standard operating procedures.
- 12) If the equipment is to remain out of service, the company's signee must request their tag be removed and an appropriate "Out of Service" tag in the name of their company be placed on the equipment. The equipment will also be physically locked-out by the operator at each location, which would prevent the reconnection and testing process.
- 13) When "Out of Service" equipment is to be returned back into service, only an employee of the company which originally placed the "Out of Service" tag may request it be removed, returning said equipment into service.

Safety Clearance Procedure 60 Hertz System "Non Sewerage and Water Board Personnel"

- 1) The company or responsible person representing that company shall first contact Electrical Engineering in regards to their outage request. Electrical Engineering will dispatch personnel to the job site and identify all equipment within close proximity to the work which should be cleared for safety.
- 2) Electrical Engineering will then contact the power dispatcher, if the work to be performed is outside of a station. The operator, if the work to be performed is inside the station. They will inform them of; the company, the person supervising the work, the work to be performed, and supplies the power dispatcher or operator with a clearance list.
- 3) The Electrical Engineering will then direct the company's signee to personally appear at any Board facility involved in the clearance prior to the request. Upon arrival at a Board facility the signee will conduct their business with the operator or power dispatcher based on the procedures listed below.
- 4) The power dispatcher reviews their one line schematics or the operator make a visual inspection of the work site and adds to the clearance list any additional equipment which they note as being involved in or in close proximity to the work site. A finalized clearance list is then agreed upon by all parties involved.
- 5) If handled through the power dispatcher:

The power dispatcher, with assistance from other operating personnel as required and through normal operating procedures, will disconnect from all power sources all equipment on the finalized clearance list.

If handled through the operator:

The operator will contact the power dispatcher informing them of the work to be performed along with a clearance list request. The power dispatcher reviews their one line schematics for any additional equipment they feel is required for safety. A finalized clearance list is then agreed upon by all parties involved. The operator will then through normal operating procedures disconnect from all power sources all equipment on the finalized clearance list.

6) After the completion of step five (5), with the company's signee at a Board facility, the company's signee will be notified of the disconnection of equipment by the operator or power dispatcher. The company's signee will then request the operator at each location to place a tag-out with the company's name/signee name on each piece of equipment on the clearance list.

7) If handled through the operator:

The operator will then contact the power dispatcher providing then with a tag-out report for logging purposes.

8) At this point prior to the beginning of any actual work it is the responsibility of the person or persons performing the work to check the equipment with a voltage tester. If all voltage testing is satisfactory, "no voltage", work may begin.

NOTE: Due to the nature of some work it may be necessary that voltage be present.

- 9) Upon completion of the on-site work, the company's signee must report to a Board facility involved in the clearance. At this point the company's signee will request the operator at each location to remove their tagout with the company's name/signee name off each piece of equipment. The operator and/or power dispatcher may restore the equipment to its connected position and test same following standard operating procedures.
- 10) If the equipment is to remain out of service the company's signee must request their tag be removed and an appropriate "Out of Service" tag in the name of their company be placed on the equipment. The equipment will also be physically locked-out by the operator at each location, which would prevent the reconnecting and testing process.
- 11) When "Out of Service" equipment is to be returned back into service, only an employee of the company which originally placed the "Out of Service" tag may request it be removed, returning said equipment into service.

ATTACHMENT 4 SEWERAGE and WATER BOARD of NEW ORLEANS

Storm Water Pollution Prevention Plan (SWPPP) And Storm Water Best Management Practices (BMP) Requirements

GENERAL

- 1. The contractor shall prepare and maintain a Storm Water Pollution Prevention Plan (SWPPP), which describes in specific details the Contractor's program to prevent contamination of the storm water collection system for this project. A suggested SWPPP Templates and Sample Inspection Report, as well as other valuable information can be found at EPA's website http://cfpub.epa.gov/npdes/stormwater/swppp .cfm.
- 2. Contractor shall implement, maintain, inspect and remove all erosion and sediment controls identified in the SWPPP. The program shall address both common construction activities and extraordinary events.
- 3. Contractor shall include Water Pollution Control Drawings (WPCD) in the SWPPP to illustrate the locations, applications and deployment of Best Management Practices (BMPs) identified in the SWPPP. The WPCDs shall be included as an attachment to the SWPCP.

- 4. Best Management Practices (BMPs): A Best Management Practice is a technique, process, activity, or structure used to reduce the pollutant content of a storm water or non-storm water discharge. BMPs may include simple, non-structural methods such as good housekeeping, staff training, and preventive maintenance. Additionally, BMPs may include structural modifications such as the installation of berms, canopies or treatment control
- 5. The Contractor shall comply with laws, rules, and regulations of the State of Louisiana and agencies of the United States Government prohibiting the pollution of lakes, wetlands, streams, or river waters from the dumping of contaminates, refuse, rubbish or debris.
- 6. The contractor shall submit six (6) copies of the SWPPP, a minimum of 10 working days prior to beginning construction, to the Engineer. **Construction shall not begin until the SWPPP** is approved. Contractor shall update the SWPPP as necessary during the work to prevent contamination of the storm water collection system.
- 7. Before start of work, Contractor shall train all employees and subcontractors on the approved SWPPP and related WPCD and provide the Sewerage and Water Board with written documentation of said training.
- 8. Suggested BMPs can be obtained from Ella Barbe, LA DEQ Small Business Assistance Program, 201 Evans Rd. Bldg. 4, Suite 420 Harahan LA. Phone 504-736-7739, e-mail: ella.barbe@la.gov

CONSTRUCTION

The contractor shall keep a copy of the SWPPP on the job site. The contractor shall provide continuously at the jobsite all the tools, equipment, and materials necessary to implement the SWPPP at all times from project initiation through completion, including any punchlist or warranty work on the project. At a minimum the following requirements shall be met as applicable, to the maximum extent practicable, at construction sites:

- 1. Storm Drain System Protection: At the first order of work, the Contractor shall protect the existing storm drain system from entrance of construction debris and pollutants. Such protection shall include implementing the BMPs as outlined in the SWPPP. Protection shall prohibit the discharge of untreated runoff from temporary or permanent street maintenance/landscape maintenance material and waste storage areas from entering the storm drain system. Sediment that is generated on the project site shall be retained using structural drainage controls. In addition, the protection system shall have a minimum of three features: 1) a particulate filter of geosynthetic material securely fastened in place such that it cannot be bypassed without significant physical damage; 2) a prefilter for the particulate filter; and 3) on-hand materials to close off the inlet or opening in the case of a significant pollution spill. Contractor shall monitor and maintain all storm drain inlet protection devices during rain events to prevent flooding.
- 2. Material Management & Storage: No construction-related materials, wastes, spills or residues shall be discharged from the project site to streets, drainage facilities or adjacent properties by wind or runoff. All materials and/or equipment storage areas where liquid construction materials are placed shall be protected by a physical barrier capable of containing the entire volume of stored liquid materials. During active construction activities, portions of the barrier may be removed for access. However, the barrier materials must be readily accessible for replacement by onsite construction personnel. The barrier must be in place at all times during the absence of Contractor personnel at the storage site. Building materials shall be placed on pallets and covered in event of rain. Do not store materials in the street or gutter area.
- 3. Equipment & Vehicle Maintenance: Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained at the project site and shall not be allowed to discharge from the project site to streets, drainage facilities or adjacent properties by wind or runoff. The Contractor shall inspect vehicles and equipment on each day of use. Leaks shall be repaired off-site if possible. If necessary to repair on site, the runoff must be contained or the problem vehicle or equipment shall be removed from the project site until repaired. If necessary, drip pans shall be placed under the vehicles or equipment while not in use to catch and/or contain drips and leaks.
- 4. BMP Inspection: The contractor shall inspect all pollution control BMPs regularly. The Contractor shall also repair/replace any damaged or clogged element on a daily basis. During periods of precipitation where any runoff occurs, the system shall be checked twice a day, seven days a week, whether or not any work has been performed. The daily checks shall be between 6 a.m. and 9 a.m., and 4 p.m. to 8 p.m. The contractor shall keep a monitoring inspection log of each inspection.
- Spill Prevention & Cleanup Plan: Contractor shall have a spill prevention plan and spill cleanup materials readily available and addressed in the SWPPP. Spills shall be cleaned

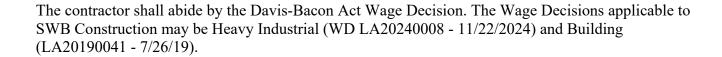
Issued: 2/27/2012

up immediately using dry methods if possible. Spill cleanup material shall be properly disposed off site. Contractor shall keep a record of any spills in the inspection log. In addition, at the end of the project, the Contractor must certify that all contaminated materials have been properly disposed in accordance with the SWPPP.

- 6. Asphalt & Concrete Activities: Asphalt and concrete activities shall be scheduled for dry weather. Contractor shall prohibit saw cutting during a storm event of 0.25 inches or greater. Store bags of cement away from gutters and storm drains, sealed and covered, protected from rainfall runoff and wind. Place tarp under cement mixer before operating to catch spills. Never dispose of cement washout or concrete dust onto driveways, streets, gutters or storm drains.
- Sidewalk Washing: The following methods should be utilized to prevent discharge of sidewalk cleaning wastewater into the storm drain system:
 - a. Sweep and pick up all areas to be cleaned before using water.
 - b. Manually scrape gum from sidewalks and other surfaces.
 - c. Must use high pressure and low volume of water with no additives and at an average usage of 0.006 gallons per square foot of surface area to be rinsed.
 - d. Use a wet/dry vacuum to collect wash water for disposal. Large volumes of wash water may require the use of a small sump pump to remove wash water from the job site.
 - e. One or more of the following methods are recommended to prevent pollutants from entering the storm drain system:
 - Sandbags can be used to create a barrier around storm drains. *
 - Rubber mats or plugs can be used to seal drain openings. *
 - Temporary berms or containment pads help keep water on site. *
 - Use berms of sandbags to direct wash water to landscaping. *
 - Use large squeegees to accumulate sheet flow for collection.
 - * Remember to remove plugs, berms, and sandbags or you may be liable for possible flooding.
 - f. Wash water that may contain hazardous waste such as oil-saturated absorbents, water with lead or other heavy metals from oxidized paint, and solvent cleaners requires special treatment and must be disposed of through a hazardous waste facility.
- Employee BMP Training: Contractor shall train employees and subcontractors on BMP implementation, general good housekeeping, and proper spill containment and cleanup. Before start of work, Contractor shall provide the Board with written documentation of training and keep all documentation in the SWPCP.
- Inspection: Contractor shall inspect and repair or replace, as needed, all job site BMPs a
 minimum of:
 - Biweekly
 - Before, during and after a major rain event.
 Contractor shall document the inspections in the SWPPP.
- Dewatering: Avoid dewatering discharges where possible by using the water for dust control, infiltration, etc..

Issued: 2/27/2012

ATTACHMENT 5 WAGE RATES



Please use the applicable wage rates at http://www.wdol.gov/dba.aspx

TECHNICAL SPECIFICATIONS

FOR CONTRACT 30267

RESTORATION OF GRAVITY FLOW SANITARY SEWERS BY EXCAVATION AND REPLACEMENT FROM MANHOLE TO MANHOLE, CIPP LINING OF SERVICE LATERALS AND POINT REPAIRS AT VARIOUS SITES THROUGHOUT THE CITY OF NEW ORLEANS

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SECTION 1

CONTRACT DOCUMENTS AND EXTENT OF CONTRACT

PART 1.0 GENERAL

1.01 CONTRACT DOCUMENTS

The Contract Documents governing this **Contract 30267**, consist of the following papers, which are bound together under the one cover, namely:

- * Advertisement and Description of Contract 30267;
- Contract and Bond;
- * Section A of the General Specifications, including Information for Bidders and General Provisions;
- * Section B of the General Specifications, covering general matters pertaining to construction;
- * Section C of the General Specifications, covering materials;

The Special Specifications for **Contract 30267**including the Form of Proposal and the standard Drawings listed in **SECTION 1 PART 1.02** are not bound with the other contract documents.

The Sewerage and Water Board has discontinued the policy of issuing the "applicable sections" of the General Specifications with each contract specification. In implementing this system, each prospective bidder is given a complete set of the "General Specifications", without charge, with the first set of contractual drawings and bid data he receives. If he has previously received his complimentary set, he will not be entitled to additional sets without cost. This set of specifications is for his use on this Contract, and future Board Contracts. Additional copies are available to all at the office of the Purchasing Agent at a cost of \$5.00 per copy. Holders of the "General Specifications" will be kept informed of any changes that may occur.

- ** The City of New Orleans Department of Public Work General Specifications.
- ** The Department of Public Works General Specifications may be obtained from the City of New Orleans Department of Public Works, 1300 Perdido Street, Room 6W02.

1.02 CONTRACT DRAWINGS

The Sewerage and Water Board Standard Drawings governing the work which will be performed under this **Contract 30267** include the following:

- 3143-E-1 Details of sewer and water manhole castings.
- 4697-E5-A Typical standard and non-standard sheeting and open trench sections for sewer pipe installation
- 6178-B-6 Typical sewer brick manhole and drop manhole

- 6312-E5-A Typical sewer service connection for sewer main less than or equal to 8' deep.
- 6312-E5-B Typical sewer service connection for sewer main greater than or equal to 8' deep.
- 7007-SWD Roadway restoration over pipe trenches.
- 7260-SWD Specifications for installation of sewer, water and drain mains.
- 8178-SD Typical sewer and drain siphon & pipe/wall connectors

The City of New Orleans Department of Public Works Standard Drawings (Latest Revision) governing the work which will be performed under this **Contract 30267** include **Standard Drawings 1 through 12**.

1.03 SCOPE AND EXTENT OF CONTRACT

A. The work to be performed under this contract consists of furnishing and delivering all labor, materials, supervision, construction equipment, mechanical and electrical equipment not furnished by the Board, travel utilities, transportation, supplies, tools and services necessary for performing all work as specified in the Contract Documents, plus whatever work may be added as extra work under the provisions stated *in Paragraphs No. 21* and No. 22 of Section A of the General Specifications.

The intent of the work is sewer service connection replacement and repairs, point repairs, interim and final restoration, sewer flow control, traffic maintenance and control, labor, equipment, tools and materials as necessary to perform the work as specified in the Contract Documents.

- B. This contract shall also include the excavation, demolition, backfilling, replacement, and repair to condition existing prior to disturbance by the Contractor, of all bridges, ditches, drains, culverts, curbs, fences, sidewalks, pavements or other structures or obstacles the removal of which is necessary for the execution of this contract.
- C. Provide all items, articles, materials, equipment, etc., mentioned herein or scheduled or shown on the drawings, and all labor, workmanship, tools, appliances, etc., required for the proper installation thereof, to accomplish the work as it pertains to this contract. In general, this Contract shall provide any item of labor or material which is necessary for a completed system to accomplish the the work as it pertains to this contract, whether specifically mentioned or not.
- D. This contract includes, but is not limited to the following items of work:
 - i. Removal and disposal of roadways, driveways, sidewalks or unpaved surface areas.
 - ii. Removal and disposal of existing gravity flow sanitary sewers and related material;
 - iii. Repair of gravity flow sanitary sewers by point repair;
 - iv. Removal and disposal of existing sewer house connections from main to property line;

- v. Replacement and tie in of sewer house connections from main to property line;
- vi. Placement of backfill including compacted subbase and base material to grade;
- vii. Restoration of roadways, driveways, sidewalks or unpaved surface areas

1.04 LOCATION OF CONTRACT WORK

The location of the work site will be at scattered locations throughout Orleans Parish. It is mandatory that all prospective bidders acquaint themselves with the local conditions.

1.05 OTHER CONTRACTORS

Other Contractors and Sewerage and Water Board personnel may be working in the vicinity of any job site during the execution of this contract. The Contractor shall cooperate with other Contractors and/or Sewerage and Water Board workmen in the area and shall organize his work so as not to interfere with or delay in any way, the work of the other Contractors and/or Sewerage and Water Board workmen. The Engineer reserves the right (should it be the best interest of the Board) to arbitrate questions of conflict between Contractors and/or between Contractors and Sewerage and Water Board workmen and his decision shall be final.

1.06 CITY AND STATE SALES TAXES

Applicable state and local sales and use taxes for purchase of materials and supplies furnished under this contract shall be paid by the Contractor. Such taxes shall be included in the Total Base Bid for the work of this contract. The board shall be relieved of any obligation to pay these taxes.

1.07 PROPOSAL FORM

All blank spaces in the Form of Proposal shall be completed. A bid price shall be indicated for each Bid item. Bids received without all such items completed will be considered non-responsive. The bid shall contain an acknowledgment of repciet on Bidders' letterhead of all Addenda; which shall be bound to the Bidder's Contract Specifications to form a complete document.

1.08 BID PRICE

- A. The Total Base Bid amount shall include and cover the performance of all labor and the furnishing of all materials requisite and proper for the work named herein and in the manner set forth, including mobilization, all as described in the Contract Documents.
- B. There are no Alternate bids associated with this contract.

1.09 Louisiana Revised Statute 9:2716

Any contract between the Sewerage and Water Board of New Orleans and a person or entity entered into as a result of fraud, bribery, corruption, or other criminal acts, for which a final conviction has been obtained, shall be absolutely null and shall be void and unenforceable as contrary to public

policy. Any person whose conviction causes the nullity of the contract as provided shall be responsible for payment of all costs, attorneys' fees, and damages incurred in the re-bidding of the contract.

1.10 BID EVALUATION

- A. All bids received will be evaluated on the basis of the Total Base Bid in the Form of Proposal.
- B. The Total Base Price shall be the arithmetic sum of any and all unit prices designated "Base Bid".
- C. Bidders shall provide prices, where required in the form of proposal, for all work. Any bids received without prices submitted for all required items will be rejected and will not be considered.
- D. If two or more proposals are received equal in amount and lower than any other proposal, the Sewerage and Water Board reserves the right to evaluate these proposals and to decide which proposal will be accepted. Preference will be given to home contractors, all conditions being equal.

1.11 ACT 318 OF 1958

- A. Under the terms of Act 318 of 1958, of the Regular Session of the Legislature of the State of Louisiana, all things being equal, preference must be given to either (1) firms doing business in the State of Louisiana or (2) to products produced (or) grown (or) manufactured in the state.
- B. Before any bill for supplies used shall be paid to any non-resident firm, a statement in writing shall be submitted by the seller to the effect that his firm has paid all taxes duly assessed by the State of Louisiana and its political subdivisions, including franchise taxes, to the state and its political subdivisions.

1.12 BID DISPUTES

Staff recommended awards based on bid results will be posted on a bulletin board located outside the office of the Sewerage and Water Board Purchasing Department within 72 hours (excluding Saturdays, Sundays, and Holidays) after the Bid opening. Bidders may also telephone the Purchasing Department to determine the bid results. Objection by a bidder to any recommended award must be made in writing to the Purchasing Agent or Assistant Purchasing Agent within 72 hours (excluding Saturdays, Sundays, and Holidays) after the recommended bid award has been posted.

1.13 BID CONFLICTS

- A. Prices bid in the proposal must be written in full in words also in figures. If there is a difference between the words and the figures in any price bid, the price written in words shall be considered to be the true bid.
- B. Erasures or other changes in the Bid Prices must be initialed by the Bidder.

NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN AND PROPERLY SIGNED BY A OFFICER OF THE FIRM OR AUTHORIZED REPRESENTATIVE WILL BE ACCEPTED. PENCIL FIGURES OR PENCIL SIGNATURES WILL DISQUALIFY BIDDER.

C. BIDS MUST BE ENTERED ON PROPOSAL FORMS EMBODIED IN THESE SPECIFICATIONS AND SHALL REMAIN ATTACHED THERETO, OR BIDS WILL NOT BE CONSIDERED.

1.14 ESCALATION

Firm Proposals are desired and no proposal containing an escalation clause will be considered unless the limits of escalation are clearly defined.

1.15 INFORMALITIES

Paragraph (6) of Section A - General Specifications is hereby amended to read, "The Sewerage and Water Board reserves the right to reject any and all bids or proposals for just cause. The Board may waive informalities in the lowest bid or proposal and accept that bid or proposal, if this should appear to be in the best interest of the Board."

1.16 DEPOSIT OR BID BOND

The amount of the deposit or bid bond for this contract as required in *Paragraph No. 1, in Section "A"* of the General Specifications shall be five percent (5%) of the total amount of the proposal made payable to the Sewerage and Water Board of New Orleans and subject to forfeiture upon failure to sign contract and execute all required bonds within ten (10) days after official award of the contract.

1.17 PERFORMANCE BOND

Bidder attention is called to *Paragraph 8 of Section A of the General Specifications*, relating to the furnishing of 100% performance bond, which shall be amended by adding to it the following statements: (R.S. 38: 2219) "Any surety bond written for a public works project shall be written by a surety or insurance company currently on the U. S. Department of the Treasury Financial Management Service List of Approved Bonding Companies which is published annually and in the Federal Register, or by a Louisiana Domiciled Insurance Company with at least A minus (A-) rating in the latest printing of the A.M. Best's Key Rating Guide to write individual bonds up to ten percent of policyholder's surplus as shown in the A.M. Best's Key Rating Guide, or by an insurance company that is either domiciled in Louisiana or owned by Louisiana residents and is licensed to write surety bonds. In addition, any surety bond written for a public works project shall be written by a surety or insurance company that is currently licensed to do business in the State of Louisiana."

1.18 PRE-BID CONFERENCE

A MANDATORY Pre-Bid Conference will be held on **Thursday, February 8, 2018, at 10:30 a.m.** at the Sewerage and Water Board of New Orleans main office building at 625 St. Joseph St , New Orleans, Louisiana 70165 in the Board Room. Any Bidder failing to attend this Pre-Bid Conference will be considered A Non-Responsive Bidder.

PART 2.0 MATERIALS

2.01 DOMESTIC MANUFACTURE

- A. All equipment to be furnished and components of all items specified herein, except bearings, shall be of domestic produce, manufacture and assembly, i.e., manufactured and assembled within the limits of the United States. Parts must be available from suppliers that manufacture components in the USA. The Board reserves the right to waive this requirement if, in the opinion of the Engineer, it appears to be in the best interests of the Board.
- B. The name of a certain brand, make, model, catalog number, manufacturer or definite specifications indicated on the contract plans and/or included in specifications is used only to establish the standard for quality and/or function desired, and that the bidder is not restricted to a specific brand, make, manufacturer or specification named but that the brand, make manufacturer or definite specifications is used only to set forth and convey to prospective bidders the general style, type, character, and quality of product desired and that equivalent products will be acceptable as judged by the Engineer. (See SECTION 2 PART 2.02)

PART 3.0 EXECUTION

3.01 MOBILIZATION

This work consists of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; the establishment of all offices, buildings and other facilities necessary for work on the project and the costs of bonds and any required insurance, and any other pre-construction expense necessary for the start of the work, excluding the cost of construction materials.

Contract 30267 does not include a pay item for mobilization.

3.02 COMPLETION TIME

- A. The work and work schedule requirements of this contract shall be completed in all respects and tendered to the Board for acceptance within 365 calendar days from the date of "Notice to Proceed". There will be two (1) year renewal option on **Contract 30267**.
- B. The work performed within the time frame stated above shall also include repair of damages to public or private property, complete cleanup of the premises, and completion of all items generated by the Engineer's final inspection.
- C. Contractor shall direct the full force of his efforts toward completion of the work within the time stipulated. Liquidated Damages and imposed penalties as defined in SECTION 2 PARTS 1.22 AND 1.23 of the Supplementary Special Contract Provisions will be rigidly enforced for failure to start work or failure to complete work on time. The Contractor may request a extension in days without accruing liquidated damages for delays in work orders as approved by the Engineer. The request for the extension in days shall be in writing and submitted with the invoice.

D. The Contractor shall have on hand sufficient materials to perform the work that is listed within ten days of the Notice to Proceed. Work should progress continuously until the job is complete with the exception of nights, weekends, and holidays unless authorized by The Engineer.

* * * END OF SECTION 1 * * *

SECTION 2

SUPPLEMENTARY SPECIAL CONTRACT PROVISIONS

PART 1 GENERAL

1.01 ORGANIZATION OF SPECIFICATIONS

The Specifications are separated into sections for convenience of reference. These separations do not establish limits to the Contract between the Contractor and Subcontractors or between Subcontractors.

1.02 GENERAL SPECIFICATIONS AND THEIR APPLICATION

The fact that certain paragraphs of the General Specifications have been specified as applying to this contract does not in any way imply that paragraphs not quoted do not apply; in all cases where the General Specifications are not directly contradicted by these Special Specifications, the General Specifications shall have full force and effect; nor shall the fact that certain clauses of the General Specifications refer to operations not constituting a part of the work of this contract be construed as in any way weakening the binding force of the General Specifications in the remaining clause.

1.03 CONFLICT BETWEEN THE GENERAL AND SPECIAL SPECIFICATIONS

In case of any conflict between the "General Specifications" herein and these "Special Specifications", the latter shall govern.

1.04 CONFLICT BETWEEN DRAWINGS AND/OR SPECIFICATIONS

- A. In case of the conflict between the bid documents (drawings and the specifications), the Engineer shall be the sole authority in determining which of the two shall take precedence in the Contract Documents. Such conflict shall not be a basis for an extra expense to the Board.
- B. The Contractor is hereby cautioned to base his price and work upon the more costly item in event of conflicts, which may exist within either the specifications or the contract drawings, and no claim for extra expense will be entertained on this basis.

1.05 CONTRACT DRAWINGS AND SPECIFICATIONS FROM THE BOARD

- A. The Engineer will furnish to the Contractor free of charge, one (1) set of specifications and one (1) set of reproducible drawings for the Contractor's use. Reproduction costs shall be borne by the contractor. The Engineer will also furnish ten (10) copies of any revised drawings.
- B. The work shall be executed in strict conformity with the contract specifications, and the Contractor shall do no work without proper instructions.
- C. Contract drawings are descriptive of the work to be performed and are to be used for General Guidance only. Contractor shall take and verify all measurements and dimensions in the field. Do not scale. Contractor shall assume all responsibility for failure to take proper and accurate measurements.
- D. These plans and specifications shall be considered to be complimentary, one to the other, and work indicated in/on one shall be as binding as if indicated in both. Discrepancies between drawings and specifications or any clarifications deemed necessary shall be brought to the attention of the Engineer prior to the submission of a bonafide bid. Submission of a bonafide bid indicates that the Contractor has been adequately informed on all phases of the work and that he can and will perform in accordance with these plans and specifications.
- E. All equipment shall be installed in accordance with the manufacturer's recommendation and any conflicting data shall be verified before bids.
- F. After award of contract, the Engineer's interpretation of these documents shall be final.

1.06 INFORMATION AND CLARIFICATION FOR PROSPECTIVE BIDDERS

Prospective bidders may obtain clarification regarding questions arising from the interpretation of the Contract Documents by contacting the Sewerage and Water Board Purchasing Agent, Room 133, 625 St. Joseph Street, New Orleans, LA, 70165, (504) 585-2124.

1.07 BIDDERS TO EXAMINE LOCATION AND PLANS

Each Bidder shall make a personal examination of the location of the proposed work and of the surrounding area. The Bidders shall thoroughly acquaint themselves with the details of the work to be done and all the conditions and obstacles likely to be encountered, including soil conditions, in the performance and completion of work. Bidders shall inform themselves as to the facilities for the transportation, handling and storage of equipment and materials.

Each bidder shall carefully study the plans, specifications and other contract documents and thoroughly educate themselves as to the conditions under which the work is to be done; the character, qualities and quantities of work to be performed; materials to be furnished; and be prepared to execute a finished job in every particular site.

No extra compensation will be accepted except as may be specifically provided for elsewhere in these Contract Documents.

Contractors shall comply with Sewerage & Water Board of New Orleans Storm Water Prevention Plans (SWPPP) and Storm Water Best Management Practices (BMP) Requirements as detailed in Attachment (SECTION 2-Attachement 1).

1.08 BIDDERS QUALIFICATIONS

Bidders shall be known to be skilled and reputable Contractors qualified to do the type of work described by the Contract Documents. Proposals from others will not be considered. These qualifications shall be in addition to those required by the Louisiana State Licensing Board for Contractors under LA-R.S. 37:2150 through 37:2163, as amended.

1.09 PROPOSALS FROM LICENSED CONTRACTORS

Proposals will be received from only those Contractors who are licensed by the Louisiana State Licensing Board for Contractors under Louisiana Revised Statutes 37:2150 through 37:2163 as amended and are qualified under the provisions of the said act to perform the work called for in these specifications. Any bid in the amount of \$50,000.00 or more that does NOT show the Contractor's license number on the bid envelope will be automatically rejected, and will be returned to the bidder stamped "REJECTED" and will NOT be read aloud at the public bid opening.

1.10 AWARD AND SIGNING OF CONTRACT

The proposal submitted by the lowest bidder will be tentatively selected by the Sewerage and Water Board at its next scheduled Finance Committee meeting of the Board after the date of opening bids provided that the lowest proposal is acceptable to the Sewerage and Water Board. The final award of the contract will be made at the subsequent Board meeting. All prices bid must be held firm for 120 days or until final award of contract by the Board. The Board reserves the right to reject any one or all bids for just cause and to waive informalities in Bidding.

After submittal of required Insurance and Bonds, in form acceptable to the Sewerage and Water Board, the selected Bidder will be authorized by the Executive Director of the Board to appear before the Notary

for the Sewerage and Water Board of New Orleans to sign the contract within ten (10) consecutive calendar days from the date of the notice.

1.11 INSURANCE CERTIFICATE

The Contractor shall submit the required insurance certificates no later than 10 days after Notification of Award of the contract. *INSURANCE REQUIREMENTS (AMENDED): refer to SECTION A-1 Parargraph (16)*

1.12 WORKERS' COMPENSATION AND UNEMPLOYMENT COVERAGE WORKERS' COMPENSATION:

The Contractor expressly agrees and acknowledges that it is an "independent contractor" as defined in LSA-R.S.23:1021(6). That its employees shall not be considered employees of the Board for workers' compensation coverage, and that the Board shall not be liable to the contractor or its employees for any workers' compensation benefits or coverage.

EXCLUSION OF UNEMPLOYMENT COMPENSATION COVERAGE:

Contractor herein expressly agrees and acknowledges that it is an "independent Contractor" as defined in LSA-R.S.23:1472(E), that neither the contractor nor any one employed by the Contractor shall be considered an employee of the Board for the purpose of employment compensation coverage.

1.13 S&WB RIGHT TO AUDIT PROVISION

The Board shall have the right to audit by its personnel or its authorized representative, at all reasonable times, any and all records pertaining to the administration of this contract by the contractor, including its records of any subcontractor (s) employed on the contract. Such records shall be made and kept by the contractor in accordance with generally accepted accounting principles and practices. Records shall include, but are not limited to, accounting records, daily reports, correspondence and subcontract files (hard copies as well as computer readable data, if it can be made available). Records subject to audit

shall also include, but not be limited to, those records necessary to evaluate and verify direct and indirect costs (including overhead allocations) as they may apply to cost and/or change order requests associated with this contract. The Board also reserves the right to interview employees, make photocopies, and inspect any and all records at a reasonable time for a minimum of three (3) years after completion of the project or formal acceptance by the Board of the contract. Contractors shall be required to retain such files of the project as described herein for a minimum of three (3) years after completion of the project or formal acceptance of the contract by the Board.

1.14 EQUAL EMPLOYMENT OPPORTUNITY

A. In all hiring, employment, or other activity made possible or resulting from this agreement, there shall not be any discrimination against any employee, or applicant for employment because of age, race, color, religion, handicaps, sex, or national origins, and where applicable, affirmative action will be taken to ensure that employees are treated during employment without regard to their age, race, color religion, handicaps, sex and national origin. This requirement shall apply to,

but not be limited to, the following: Employment, upgrading, demotion or transfer, recruitment and advertising, layoff or terminations, rates of pay or other forms of compensation, and selection for training, including internship and apprenticeship.

B. All solicitations or advertisements for employees shall state that all qualified applicants will receive consideration for employment without regard to age, race, color, religion, handicaps, sex or national origin.

1.15 LABOR STANDARDS

- A. The minimum wages to be paid laborers and mechanics shall be the prevailing wages for corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work; said prevailing wages to be determined by the Secretary of the U.S. Department of Labor. (*See Appendix C*)
- B. The successful bidder is to make available to the Board, complete records in connection with payment of employees during the term of the job in order to permit the Internal Audit Division to check as to adherence to the wage scale presently in effect in accordance with U.S. Government standards.

1.16 DRUG FREE WORKPLACE POLICY

- A. It is the policy of the Sewerage and Water Board that all workplaces and facilities be kept drug and alcohol free at all times.
- B. In order to ensure compliance with this policy, the Board has approved and implemented the "Drug Free Workplace Policy" which is attached hereto in (*Appendix B*) and which shall be implemented and rigidly enforced on this contract.

1.17 OTHER CONTRACTOR WORK

The contractor tis required to fully support each contract awarded and each work order assignment thereafter. In the event that a single contractor holds multiple contracts; work on other contracts and emergencies on other contracts shall not halt work or the efficiency of any work on this contract.

1.18 SAFETY

The Contractor shall take proper precautions to safeguard the public, SWBNO employees, the contractor's work force and the Board's facility during his work. Only Engineer approved methods of construction shall be used.

The completed installation and operations during installation shall comply with the Occupational Safety and Health Act (OSHA) and all changes in effect at the time proposals are submitted. Particular attention shall be directed to safety regulations for excavations and confined space entry.

At all times during the course of this contract, the contractor will be in compliance with all federal, state, and local health and safety requirements, will allow inspection of the worksite by the Sewerage and

Water Board's Safety Unit, and will provide copies of his written safety program and written safety procedures to the Board's Safety unit within one calendar week if required by the Board's Safety Unit. A senior employee of the contractor and/or any subcontractor will review the Sewerage and Water Board Safety Orientation Notice (Notice), and will explain the information in this Notice to every employee who will enter Board facilities or jobsites. This notice is included in *Appendix B* as an attachment to the specifications for this contract.

1.19 SITE SECURITY

All Contract Employees who enter Sewerage and Water Board Facilities shall have current and legible picture ID Badges issued by the Contractor. No one will be allowed to enter the Facilities without displaying this badge, which shall also be worn and visible at all times.

The Contractor shall insure that the site is properly secured at the end of each workday. Fences shall be intact and the gates locked. The Contractor shall also provide and maintain all necessary flagmen, watchmen, barricades, plate, devices as required for the protection and safety of the work and the public against personal injury and property damages. The Contractor will be responsible for any and all damages, injury or loss resulting from his failure to provide such necessary protective precautions. The Contractor is responsible for the site security 7 days from the issuance of the work order. There is no additional pay for this item.

1.20 PAYMENTS

- A. Payments for work to be done under this contract will be made by the Board in accordance with **Paragraphs (55) through (58) of Section A-1 of the General Specifications**.
 - Initial payment to the Contractor will be predicated upon his compliance with these specifications relative to securing of all necessary permits and properly adhering to the notification process outlined in **SECTION 5 ORDERING OF WORK.**
- C. Credits to be allowed the Board by the Contractor for work abandoned or not to be done shall be calculated on the same basis as "Extra work".
- D. Payments for extra work, whether unit price work, lump sum work, or force account work will be made and retainers will be withheld on items of extra work in the same manner as on the items bid on the original proposal.
- E. Retainer: "The percentage of the value of the work done..." which will be retained by the Board as referred to *Paragraph (60) of Section A-1 of the General Specifications* is defined as follows:
 - 1. On contracts that are priced \$500,000.00 or more, the Board shall withhold 5% of the total amount earned, as billed, until the contract is finally accepted and a clear Lien and Privilege Certificate is submitted. Payment for material stored shall be made at 90% of the paid invoice value and 5% retainage will be withheld from this amount.
 - 2. On contracts priced less than \$500,000.00, the Board shall withhold 10% retainage.

1.21 PAYMENT FOR MATERIAL DELIVERED TO JOB SITE

The Board may make allowance for material delivered to the job site but not yet used in construction, in accordance with *Paragraph 58 of Section A-1* of the General Specifications, provided that conditions of security and areas for storage on the jobsite are judged suitable by the Engineer to adequately protect the interest of the Board. The allowance will be in the form of advanced payment for the material, as defined in *Paragraph 58*. Ninety (90%) percent of the value of the materials as delivered, as represented by invoices, will be included in the estimate. The amount of the retainer will then be subtracted from the total estimate (composed of the work done plus 90% of the invoice price of the material).

1.22 LIQUIDATED DAMAGES FOR FAILURE TO START OR COMPLETE ON TIME

Should the Contractor fail to commence or start the work within the time allotted or fail to complete individual phases of the work within the times allotted for said individual phases, the Contractor shall pay to the Board the sum of \$2,000.00 liquidated damages for each calendar day beyond the times specified. If unforeseen circumstances are encountered at the work site, the Contractor may request in writing an extension in days for the completion of work. If granted, the extension of time must be approved in writing by the Engineer and submitted with the invoice.

The Board shall retain the amount of such damages from any money due or to become due the Contractor under this contract without the necessity of the Board putting the Contractor or his Surety, either or both, in default. Special notice is hereby given to all Contractors that the terms stipulated in *PARAGRAPH 26 OF SECTION A-1 OF THE GENERAL SPECIFICATIONS, titled "FAILURE TO START, FAILURE TO COMPLETE"* as well as the liquidated damages specified in the above subparagraphs will be strictly interpreted and rigidly enforced.

1.23 IMPOSED PENALTIES

A. Failure to Notify

An imposed penalty of 10% of the total work order amount will be imposed for each failure to notify the Sewerage and Water Board Communication Department and The City of New Orleans Department of Public Works in advance of scheduled work. Notification shall be made to the Sewerage and Water Board 72 to 48 hours in advance of any scheduled work. Notification shall be made to The City of New Orleans Department of Public Works 72 to 48 hours in advance of any scheduled work in the Rights of Way listed in *APPENDIX F NOTIFICATION STREETS*. Notification shall be in writing and written approval shall be obtained and submitted with the invoice for all work.

B. Failure to Take Over Job Site

An imposed penalty of 10% of the total work order amount will be imposed for failure to start work within 5 days of the issuance of a Work Order. For the purposes of this subsection, "failure to start work" shall include the failure to erect approved site safety barricades bearing the contractor's information. After the initial 5 day period, an additional 10% will be deducted from the total work order amount for every 10 days the Contractor has failed to start the work or has failed to complete the work on time.

Emergency work will take priority and the Contractor may request additional days on their work orders from the Engineer for the given contract. Penalties shall not be incurred in the event of an emergency as approved in writing by the Engineer.

SWBNO shall require the contractor to be able to fully support each contract retained. In the event that a single contractor holds multiple contracts, emergencies on one contract shall not halt work or the efficiency of any other contracted work.

- C. The Contractor shall start each work order within 15 days of said receipt of work order transmittal.
- D. The Contractor shall complete each work order within the time specified in **SECTION 5 ORDERING OF WORK, PART 3.** Failure to complete work within the time allocated for each specific work order shall result in a 10 % deduction of the total work order amount as specified in **SECTION 5 ORDERING OF WORK, PART 3** and then again an additional 10% penalty for every 10 days thereafter.
- E. Liquidated Damages will be imposed for any work order remaining open after the expiration of the one year contract term.
- F. Emergency work will take priority and the contractor may request additional days on their work orders from the Engineer for the given contract. Penalties shall not be incurred in the event of a subsequent emergency as approved by the Engineer.

PART 2 MATERIALS

2.01 CONTRACTOR'S PLANS, SAMPLES, AND DATA

All material submittals shall be submitted prior to receipt of any work order subject of said submittal. All submittals, regardless of origin, shall be stamped with the approval of the Contractor and identified with the name and number of the contract, Contractor's name, and references to applicable specifications paragraphs and contract drawings. 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.

All Invoices shall be submitted with current as-built drawings, video inspections, Geospatial information (GIS) Data, etc...supporting the work completed within the contract period.

The Contractor shall accept full responsibility for the completeness of each submission and shall verify that all exceptions previously noted by the Engineer have been taken into account.

The Engineer shall be allowed 28 working days to process the above listed drawings, lists and diagrams. The Engineer's approval shall not relieve the Contractor of responsibility for correctness of his submittals. The Contractor shall bear any costs or expense incurred to revise or replace material or equipment, furnished in accordance with his submittals, so as to bring the work into conformance with the drawings and specifications.

Any need for more than one resubmission, or any other delay in obtaining the Engineer's review of submittals, will not entitle the Contractor to extension of 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 the Engineer to return any submittal within 28 working days after its receipt in the Engineer's office.

NOTE: The fact that the Contractor furnishes on the job items that are listed in the specifications and not a substitution does not relieve the Contractor from furnishing submittals to the Engineer as stated in the preceding paragraphs.

The contract documents are prepared to establish the intent of the required construction. Approval of the contractor's submittals, which may be based upon items different from that specified and/or shown on the plans and specification, shall NOT relieve the contractor of all costs necessary and proper to make the items fit and function in accordance with the evident intend, all as judged by the Engineer.

2.02 SUBSTITUTE MATERIALS AND EQUIPMENT

All materials and/or equipment indicated on contract plans and/or included in specifications by Manufacturer's Name, Catalog or Model Number has been selected to establish a standard for quality and/or function. If the Contractor wishes to substitute Material and/or Equipment of another Manufacturer because of availability or as "an equal" he shall, after signing of contract, comply with the following:

- A. Such Materials and/or Equipment must be submitted for Engineer's approval within forty-five (45) consecutive days after signing of contract and thereafter approved as "Equal" by the Engineer.
- B. If Contractor fails to submit the Materials and/or Equipment substitutions within forty-five (45) days limit or if any one of the Materials and/or Equipment submitted within specified period is not approved by the Engineer, then only Materials and/or Equipment specified in the Contract Documents will be accepted.
- C. The term "Equal" used herein is defined as meaning "Equal", in the opinion of the Board Engineer, with regard to quality, fit, finish, and utility.
- D. No more than one submittal of a Material and/or Equipment substitute for each item of Material and/or Equipment indicated on drawings and/or included in specifications will be reviewed for approval by the Board Engineer.

2.03 PRIOR APPROVAL

All bids must be based upon the specified items. If the Contractor wishes to substitute "or equal" prior to the bid opening, he shall be responsible for the substitution's equality to the item(s) specified. The Board will entertain prior approval of substitutions up to 14 working days before bid opening. The Board reserves the right to evaluate the equality of the substitute item(s) and its decision regarding the acceptability of the item(s) will be final.

2.04 CODES AND STANDARDS

Wherever in the Contract Documents references are made to NEC, NESC, AWWA, ASTM, ANSI, NEMA or any other standards or requirements, it shall be understood that the most current issues of the standards or requirements of the National Electrical Code, National Electrical Safety Code, American Water Works Association, American Society for Testing and Materials, American National Standards Institute, National Electrical Manufacturers Association, etc., are intended and shall apply, except where specific dates are specified and except to the extent that the standards or requirements may be in conflict with applicable laws, regulations, ordinances, etc., of the State of Louisiana or the City of New Orleans.

2.05 MATERIALS BY CONTRACTOR AND MATERIALS BY OTHERS

The Contractor shall furnish all materials required for the various items of work except where specifically shown otherwise in the Contract Documents.

2.06 CONTRACTOR'S WORK

- A. The Contractor shall furnish, deliver, and unload all materials, tools, appliances and rigging necessary for the completion of this Contract as covered by these specifications.
- B. The Contractor shall furnish all labor, skilled and unskilled.

PART 3 EXECUTION

3.01 PRECONSTRUCTION CONFERENCE

- A. After the time specified in the Notice to Proceed, or as agreed by the parties, but before Contractor starts any portion of the work on the contract, a conference shall be held for review and acceptance of the schedules referred to in **SECTION 2 PART 3.04**, to establish procedures for handling submittals, securing of Permits, and for processing applications for payment, and to establish a working understanding among the parties as to the work, protection of existing facilities, conflicts with other utilities or owners, and other pertinent items associated with the Contract.
- B. The Conference shall be attended by the Sewerage & Water Board of New Orleans Engineer, the Contractor and his jobsite Superintendent, principal Subcontractors, representatives of principal suppliers as deemed necessary and appropriate and others as deemed advisable by the Contractor, the Board or the Design Engineer.

3.02 EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

It is understood that except as otherwise specially stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, light, power, transportation, superintendence, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to execute, complete, and deliver within the specified time.

3.03 ORDER TO START WORK AND COMPLETION OF WORK

- A. After the contract has been signed, the Engineer will issue a "Work Order" directing the Contractor to start work at a point or points designated within 5 calendar days after the date of receipt of work order transmittal. The "Work Order" shall be the Contractor's authority to purchase materials for use on this contract; materials ordered by the Contractor before the "Work Order" has been issued are ordered at his own risk and the Board has no obligation concerning them.
- B. The Contract shall be completed in every respect, including the repair of all damaged public or private property resulting from the work of this contract, within the specified number of calendar days.

3.04 BEFORE STARTING CONSTRUCTION

Before undertaking each part of the work, the Contractor shall carefully study and compare the contract documents and check and verify pertinent figures shown thereon including all pertinent field measurements. Contractor shall promptly report in writing to the Engineer any conflict, error or discrepancy that the Contractor may discover. Prior to commencement of work under this Contract or the continuance of any work hereunder or under any modification to the Contract Documents, Contractor shall provide written notice to the Engineer of any defects in the plans and specifications and the specific engineering reasons thereof, and of any prospective damages to persons or property that could be or would be caused by the work and/or duties to be performed under this contract.

Prior to beginning the work, the Contractor shall submit to the Engineer an estimated progress schedule indicating the starting and completion dates of the various stages of the work, and a preliminary schedule of values of the work.

If for any reason the work cannot be completed in whole or part in accordance to the standard specifications the Contractor shall inform the Engineer and provide recommendations for approval. The contractor shall obtain the approval in writing and supply all documentation for changes in the scope of work.

3.05 PERMITS AND CERTIFICATES

Before commencing work, the Contractor shall obtain at his own expense any permits from the City of New Orleans Department of Public Works, City of New Orleans Building Inspection Division, and/or Louisiana Department of Transportation that are necessary. The Contractor shall also secure at his own expense any necessary inspection certificates required after the work is done.

Evidence of compliance shall be furnished to the Board prior to starting work in the case of permits or within 10 calendar days after completion of that work requiring inspection certificates.

Delays caused by third parties shall bear no costs to the Board.

3.06 CHANGES

- A. Minor changes or additions to the contract (defined as those changes or additions which do not change the total cost of the contract or those which do not increase or decrease the total cost of the contract by an amount exceeding 5% of the base bid of the original contract) may be made by the Engineer upon written notice to the Contractor.
- B. Changes of greater extent or value may be made only by resolution of the Board, when such changes are deemed necessary or desirable to improve the quality or efficiency of the work, or to make these specifications operative, or to facilitate the Contractor without injury to the interests of the Board. Any work done by the Contractor without such resolution is done at his own risk, and the Board assumes no responsibility therefore.
- C. No notice of such change shall be required to be made to the Contractor's Surety and neither the Contractor nor his Surety shall be, in any manner, relieved of any obligation which they have assumed under this contract by or through such change or changes as may be made.
- D. Increase or Diminution of Quantities; The Board reserves the right to alter the quantities of work included in this Contract as may be found to be necessary or desirable. Such increases, decreases and/or other alterations shall not invalidate the Contract nor release the Surety and the Contractor. The Contractor agrees to accept the work as altered, the same as if it had been part of the original Contract. No claims shall be made by the Contractor for any loss of anticipated profits because of any such alteration, nor shall such alteration be considered as waiving or invalidating any conditions or provisions of the Contract.

3.07 LINES AND GRADES

Paragraph 46 of Section A-1 of the General Specifications is amended to read as follows:

"The Engineer will establish permanent control points for the centerline of the construction and a control benchmark for elevations. From these established control points and the benchmark, the Contractor shall establish all locations and grade of the work and shall be solely responsible for the exact position of all parts of the work with reference to the established line and the benchmark. The Contractor shall maintain his own field engineering force, for this purpose, that of the Engineer being for checking the Contractor's locations only. The Contractor shall furnish, free of charge, all stakes, permanent bench construction, templates, instrument platforms, and other materials necessary for marking and maintaining points and lines given, and shall furnish the Engineer such assistance as he may require in checking the layout of the work. The Contractor will be held responsible for the protection of all stakes and marks and if, in the opinion of the Engineer, benches or lines established by the Engineer have been destroyed or disturbed, they shall be replaced at the Contractor's expense."

3.08 SURVEY AND LAYOUT DATA

All field books, notes and other data developed by the Contractor in performing surveys required as part of the Work shall be available to the Engineer for examination throughout the construction period. All such data shall be submitted to the Engineer with the other documentation required for final acceptance of the work.

Contractor shall keep neat and legible notes of measures and calculations made by him in connection with the layout of the Work. Copies of such data shall be furnished to the Engineer or Resident Project Representative for use in checking Contractor's layout as provided under **SECTION 2 PART 3.07 LINES AND GRADES**. All such data considered of value to the Board will be transmitted to the Board by the Engineer with other records upon completion of the Work

3.09 OPERATIONS AND MATERIAL STORAGE AREA

- A. After taking control of the job and securing necessary permits the Contractor may secure storage at the work site for work operations, etc., contingent upon the Engineer's approval. At the time approval is granted, the Engineer will outline the particular qualifications to be imposed in the use of that area. If materials are stored anywhere within the area without this approval, the Engineer, at his discretion, can order them moved to a more suitable location.
- B. All operations of the Contractor including storage of material on Sewerage and Water Board's premises shall be confined to areas authorized or approved by the Engineer. The Contractor shall hold and save the Sewerage and Water Board harmless from liability of any nature occasioned by his operations.
- C. Temporary buildings (storage sheds, shops, offices, etc.,) may be erected by the Contractor only with the approval of the Engineer, and shall be built at no cost to the Sewerage and Water Board. Such temporary buildings and utilities shall remain the property of the Contractor and shall be removed by him at his expense upon completion of the work.
- D. No equipment or material shall be placed where access to any facility will be obstructed in the event of a breakdown.
- E. No materials or equipment may be placed over underground structures whenever such storage or use may impair effectiveness or limit maintenance, or impose excessive loadings.
- F. The Engineer may order moving of materials of equipment at no cost to the Board even from places where approval has been granted if it becomes necessary to the operation of the Board's facilities because of things unforeseen at the time of approval, such as breakdowns, failures, etc.
- G. Any area occupied by the Contractor shall be cleaned up in accordance with the requirements of **PARAGRAPH NO. 54, IN SECTION A-1 OF THE GENERAL SPECIFICATIONS**.
- H. The Sewerage and Water Board assumes no responsibility for any loss of or damage to the Contractor's material, tools, or supplies.

I. Trees and shrubs shall not be cut or damaged without the permission of the Engineer.

3.10 WATER AND OTHER UTILITIES

- A. It shall be the responsibility of the Contractor to make all necessary arrangements for the provision of water, electricity, drainage, sanitary sewage disposal, gas, compressed air, communications, fiber-optics and any other utility service required to prosecute the work of this contract.
- B. Water used by the Contractor at the jobsite will be furnished by the Board at a cost to the Contractor. Contractor shall familiarize himself with "Sewerage and Water Board of New Orleans Hydrant Meter Installation Non-potable (Standard) and Potable (Special Festival) Water Use" Policy and Procedure. These documents are available on the Sewerage and Water Board's Web site: http://www.swbno.org/custserv_information_docs.asp.
- C. Contractor shall complete a hydrant meter application for his construction project for each location, if more than one is needed. The hydrant meter(s) shall be turned over to the Sewerage and Water Board every six (6) months for recalibration by the Board's Meter Shop located at 8800 South Claiborne Ave. Each Hydrant Meter shall be returned to the Meter Shop at the end of the construction project otherwise forfeit the deposit(s).
- D. Costs of all other services shall be borne by the Contractor.
- E. Connections to fire hydrants shall only be made with meters obtained from the Sewerage and Water Board Customer Service Department, 585-2097, which shall record water usage for record purposes and which shall be returned to the Board as a condition of acceptance of the Contract. Application for the meter requires a \$1,500.00 deposit that is refundable upon return of the meter in undamaged and operable condition.
- F. If the bidder is selected as the lowest responsive and responsible bidder and is awarded this contract, then should the Contractor owe the Sewerage and Water Board of New Orleans ("Board") any funds not relating to this contract by virtue of the Contractor having been previously provided any services from the Board such as water or any other service, the parties agree to discharge by set-off the Board's debt and the Contractor's debt once the Contractor submits its Request for Payment or any similar document such as a request, invoice, etc., in connection with the Contractor's performance of work on this contract, both debts being at the time enforceable.

3.11 EMERGENCY TELEPHONE

The Contractor shall, before contract work begins, furnish to the Engineer Telephone Numbers at which company officers or responsible persons can be contacted at night, weekends and holidays in case of emergencies.

3.12 PROJECT WORK SCHEDULE

- A. Upon receipt of the "Work Order" transmittal the Contractor shall inspect and take over work sites within 5 working days. Within 15 days of receipt of work order and prior to commencement of any work on the contract, the Contractor shall be required to provide a schedule to complete work associated with the site including surface restoration. This document will be used in the preparation of work flow monitoring and payments to the Contractor. A sample Spreadsheet shall be submitted with the Work-Order Schedule with the required information as detailed in **SECTION 2 ATTACHMENT 2 ROUTE SHEET.**
- B. The form of the combined schedule, although subject to change upon order of the Engineer, shall consist of:
 - 1. Separation of the entire construction work orders into its stages, as well as any specific related stages such as pipe work, restoration, inter-agency approval, material or equipment shipment, etc., in terms of actual progress.
 - 2. A listing of these construction stages with the proposed starting and completion date shown for each construction stage. At the end of each monthly increment, the Contractor shall indicate by a percentage figure directly on the schedule the completion he expects to attain for that interval.
 - 3. Shown directly below the expected completion percentage shall be an "actual progress" percentage completion indicated at monthly intervals intended to represent the actual progress toward completion for that interval.
- C. Since the combined cost-progress schedule to be submitted monthly is to be used in the preparation of work order assignments, it is imperative that the Contractor exercise careful consideration in assigning the percent complete expected on his proposed schedule. It is expected that the actual percent complete shall rarely exceed the proposed percent. The Contractor shall re-examine his proposed schedule monthly and alter it accordingly to insure this does not occur.
- D. Should it appear to the Board's Engineer that the cost breakdown on progress schedule is in error or proves inadequate; the Engineer will direct the Contractor to alter his form to make it comply with the requirements of the Board.
- E. Progress at each active repair site will be continuous and subject to normal work hours, work days and weather unless authorized by The Engineer.

3.13 JOB SITE DRAWINGS AND SPECIFICATIONS

A. A complete and current set of contract drawings and specifications, including any addenda, shall be maintained on the job site by the Contractor.

B. One copy of all approved shop drawings, equipment or material drawings, etc. shall be maintained on the job site by the Contractor.

3.14 CONTRACTOR'S RESPONSIBILITY FOR WORK

- A. The Contractor shall give personal attention to and supervise the work to the end so that it shall be prosecuted faithfully; and, when the Contractor is not personally present on the work, the Contractor shall be at all time represented by a competent superintendent or foreman who shall be present at the work and who shall receive and obey all instructions or orders given under this contract, and who shall have full authority to execute the same, and to supply materials, tools and labor without delay, and who shall be the legal representative of the Contractor. The Contractor shall be liable for the faithful observance of any instructions delivered to the Contractor or to the Contractor's authorized representative.
- B. Until final written acceptance of the project by the Board, the Contractor shall have the charge and care thereof and shall take every precaution against damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or non-execution of the work. The Contractor shall rebuild, repair, restore and make good all damages to any portion of the work, before final acceptance, including damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor; acts of God, of the public enemy or of governmental authorities and shall bear the expenses thereof.
- C. In case of suspension of work from any cause, the Contractor shall be responsible for the project and shall take such precautions as necessary to prevent damage to the project, provide for normal drainage and erect any necessary temporary structures, signs or other facilities at his expense.

3.15 BI-WEEKLY JOB MEETINGS

Once every two (2) weeks, or as determined necessary by the Engineer, on a date and location mutually agreed upon by the Contractor and the Engineer, a meeting shall be held for review of the Project and any open work orders including, but not limited to, the construction and inspection schedule, progress of the construction, traffic control, submittals and any other issues that may arise. The meeting may be used to review the Contractor's monthly application for payment. The Contractor shall preside over all these meetings, and shall arrange for subcontractors and material suppliers to be present as needed to discuss their specific work. The Contractor will keep and distribute minutes of each meeting to all attending parties.

3.16 ENVIRONMENTAL REQUIREMENTS - MEETING CONSENT DECREE CONDITIONS

A. The parties agree that the work and duties required to be performed in accord with the Contract Documents shall meet and comply with all environmental requirements to include the laws and regulations of the United States and the State of Louisiana, and shall satisfy and be in accord with the provisions of the Consent Decree with attachments entered into by and between the BOARD and CITY with the EPA and the UNITED STATES in the matter entitled "UNITED STATES OF AMERICA V. SEWERAGE AND WATER BOARD OF NEW ORLEANS, ET AL," No. 93-3212, United

States District Court, Eastern District of Louisiana and all modifications thereof, which provisions the CONTRACTOR must acquaint itself and become familiar with prior to bidding on said Contract.

- B. The above mentioned Consent Decree is available on the Sewerage and Water Board web site, http://www.swbno.org/docs consentdecree.asp
- CONTRACTOR specifically acknowledges the Board has made said Decree with attachments available for review and CONTRACTOR has read said decree with attachments or the pertinent parts thereof and is familiar with the terms and conditions thereof, and will pay any fines or penalties that will be assessed against the BOARD or CITY (or reimburse them therefore) which are imposed by the terms of said decree with attachments resulting from the actions of CONTRACTOR in performance of or its failure to perform its duties under this Contract.

3.17 REPORT, CONTAINMENT/BY-PASS AND CLEAN-UP

A. The Contractor shall develop a plan to report, contain/by-pass and clean up all sewage spills or unanticipated hazards that would adversely affect the health of the community.

B. REPORT

A report shall be given immediately to the S&WB Emergency Desk (942-2920). The information communicated in the report must include location, nature of problem, name of project, name of company performing work, name of the individual making the call, time of incident and other pertinent data as necessary. It should be communicated as a Priority I incident.

C. CONTAINMENT/BY-PASS

The Board's first priority in operating its sewer system is to protect the public health of the citizens and the environment in the most cost effective manner possible.

The plan must consider all available options for immediately eliminating the discharge or diverting to a containment area, as well as options for containing the contents of, for example, a damaged main which will be evacuated during repair work. It is impossible to anticipate all the specific conditions and factors that may be relevant for any particular incident. Each incident will be unique.

To this end the Contractor will by-pass, direct and temporarily store sewage as the situation dictates to avoid contamination of soil, street, etc. that would place the citizens in contact with waste products. If these sewer wastes reach a canal it will be the Contractor's first effort to remove the contamination. Drainage pumping from the contaminated canal will be stopped.

In those circumstances when sewage cannot be removed from the canal system because of location or weather, where possible the procedures will be dilute and flush the canals.

Considerations

The following are some of the more significant considerations; which will impact the ultimate approach to mitigation activities.

Can any or all of the discharge be returned to the sewerage system immediately? If so, how much, where and by what means?

What is the anticipated duration of the repair activity?

Can normal sewage flow be rerouted? If so how much?

How many and which pump stations will be affected by isolation of the force main?

Do any of the stations have the capability to bypass flow to the gravity system?

How long can the normal sewage flow in the affected gravity sections be interrupted before property damage or upstream overflows occur?

Is there the capability to create in-system containment by artificial draw down of the associated gravity system(s) and if so, how much?

Is there the capability to create a containment area utilizing a drainage canal or catch basin, how would the flow be reintroduced into the sewerage system and could an effective clean-up of the containment area be accomplished? (One or more containment areas could be considered not only at the repair site but at an affected pump station or other location).

Is there a capability to haul sewage (vac tanker, vac truck etc.) from either the repair site or anticipated up-stream overflow location?

Is a rainfall event anticipated during the repair or clean-up activities?

Because of the varying conditions, locations and circumstances which have an impact on the planning process, the development of specific procedures is not practical. It is far more important for a response action plan such as included herein, to provide for the availability of the resources including senior management expertise, such that a response can be initiated in an expedient and thoughtful manner. As evidenced in other sections of this document, the Board has a policy of requiring Division and Department managers to be available on call 24 hours per day and to personally respond to all emergencies including Sanitary Sewer Overflows.

The ability to call on the experience of these managers as a matter of policy insures all possible avenues of mitigation are considered and all required resources are dedicated to this response effort.

D. CLEAN-UP/DISINFECTION

For public areas that have come in contact with overflowed sewage, the Contractor will take reasonable action to implement disinfection procedures. Generally, these procedures will involve an application of an oxidizing agent such as a dilute chlorine solution on constructed surfaces (streets, driveways, walls, etc.) and a lime application on organic surfaces (lawns, soil areas, etc.). The level and extent of disinfection will be determined in the field. It is not the intent of this disinfection procedure to infer that total pathogen destruction has been achieved, nor that any other level of disinfection has been achieved.

3.18 CONTRACTOR'S EMPLOYEES

The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the task assigned to him. The Engineer has the right to require the Contractor to remove any employee from the jobsite for just cause. Any contractor employee that is removed for cause shall be ineligible to return to any worksite for the duration of the contract.

3.19 OTHER CONTRACTS

The Sewerage and Water Board has, or may undertake, or award, other contracts for other, or additional work and this Contractor must fully co-operate with such other Contractors and Sewerage and Water Board employees and carefully fit his own work to such other, or additional work, as may be directed by the Engineer. This Contractor must not commit or permit any act that will interfere with the performance of work by any other Contractor or Sewerage and Water Board employees.

3.20 PARKING FACILITIES

Contractor personnel will not be permitted to park personal vehicles on S&WB property due to limited and restricted area available for this purpose. The Contractor will be allowed to bring construction equipment and construction vehicles only into the site as necessary in the execution of this contract but may be required to remove them if their presence interferes with the operation of the Board, at the discretion of the Engineer.

3.21 BOARD'S RIGHT TO OCCUPANCY

- A. The Board will have full access to and full use of all existing utilities during the entire period of construction for the conduct of its normal operations. The Contractor shall cooperate with the Engineer and the Board in all construction operations to minimize conflict, and to facilitate Board usage.
- B. The Contractor shall at all times provide proper facilities for access and inspection of the work by representatives of the Board, the Engineer, inspectors, and any such official Governmental Agencies as may be designated by the Board as having jurisdictional rights to inspect the work.

3.22 INJURIES AND DAMAGES TO PERSONS AND PROPERTY

A. The Contractor shall be held alone responsible for all injuries to persons, and for all damage to the property of the Sewerage and Water Board or others, caused by or resulting from the

negligence of himself, his employees, or his agents, during the progress of, or connected with the prosecution of the work, whether within the limits of the work or elsewhere, and whether under the contract proper or as extra work.

- B. The Contractor must protect and support all water, sewer and gas pipes or other conduits and buildings, walls, fences or other properties that are liable to be damaged during the execution of his work. He shall take all reasonable and proper precautions to protect persons, animals and vehicles of the public from injury, and shall erect and maintain a fence or railing around all excavation and place a sufficient number of warning lights about the work and keep them illuminated from twilight until sunrise, and shall employ one or more watchmen, if required, as an additional security. He must, as far as practicable and consistent with good construction, permit access to private and public property and leave fire hydrants and catch basins and canals free from encumbrances. He must restore, at his own expense, all damaged property caused by any act of omission or commission on his part, or on the part of his agent, including sidewalks, curbing, sodding, pipes, conduits, sewers and other public or private property, to a condition as good as it was when he entered upon the work.
- C. In case of failure on the part of the Contractor to restore such property or make good such damage, the General Superintendent may upon forty-eight (48) hours' notice proceed to repair, rebuild or otherwise restore such property as may be deemed necessary, and the cost thereof, will be deducted from any monies due, or which may become due, under this contract.
- D. The Contractor shall indemnify and save harmless the Sewerage and Water Board from all suits and actions that may be brought against it by reasons or any injury, or alleged injury, to the person or property of another, resulting from negligence or carelessness in the execution of the work, or because of failure to properly light and guard the same, or on account of any act of commission or omission on the part of the Contractor, his representative or employees.
- E. There will be no direct payment for erection and maintaining a fence or railing around excavation, placing warning lights and providing watchmen and supporting and protecting utilities as prescribed in **(B)** above.

3.23 NIGHT, WEEKEND OR HOLIDAY WORK

Night, weekend or holiday work requiring the presence of an Engineer or inspector will be permitted only in cases of emergency, and then only to such an extent as is absolutely necessary and with the written permission of the Engineer. In the event such work becomes necessary, no extra payment will be made. No work shall be performed outside of normal working hours and workdays without the prior approval of the Engineer.

3.24 SUSPENSION OF WORK

A. The Engineer may order the Contractor in writing to suspend, delay or interrupt all or any part of the work for such period of time as he may determine to be appropriate. The Engineer may also suspend, delay or interrupt the work wholly or in part due to the failure of the Contractor to correct conditions unsafe for the workmen or the general public; for failure to carry out

- provisions of the contract; for such period of time as may deem necessary due to unsuitable weather; or for any other condition or reason deemed to be in the public interest.
- B. No adjustment to the time of completion for the project will be made if the suspension, delay or interruption to the work is ordered due to the fault or negligence of the Contractor; however, if such suspension, delay or interruption if ordered for reasons other than the Contractor's negligence, the period of such suspension, to be determined by the Engineer, shall be added to the time specified for the completion of the work under this contract.
- C. If the work is suspended for any reason, all materials delivered at the work but not yet placed therein shall be neatly stored so as not to constitute an obstruction.

3.25 INSPECTION AND ACCEPTANCE

- A. All work shall be subject to inspection and test by the Board at all reasonable times and at all places prior to acceptance. Any such inspection and test is for the sole benefit of the Board and shall not relieve the Contractor of the responsibility of providing quality control measures to assure that the work strictly complies with the contract requirements. Inspection or test shall not relieve the Contractor of responsibility for damage to or loss of the material prior to acceptance.
- B. The Contractor must promptly replace rejected material or correct any workmanship found by the Board not to conform to the contract requirements. The Contractor shall promptly remove rejected material from the premises.
- C. If the Contractor does not promptly replace rejected material or correct rejected workmanship, the Board (1) may, by contract or otherwise, replace such material or correct such workmanship and charge the cost thereof to the Contractor; or, (2) may terminate the Contractor's rights to proceed in accordance with the *Paragraph 27 of the Section A-1 of the General Specifications*.
- D. The Contractor shall furnish promptly, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspection and test as may be required by the Engineer. All inspection and tests by the Board shall be performed in such manner as to not unnecessarily delay the work. Special, full size, and performance tests, shall be performed as described in this contract. The Board reserves the right to charge to the Contractor any additional cost of inspection or test when material or workmanship is not ready at the time specified by the Contractor for inspection or test or when re-inspection or retest is necessitated by prior rejection.
- E. Should it be considered necessary or advisable by the Board at any time before acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall, on request, promptly furnish all necessary facilities, labor and material. If such work is found to be defective or nonconforming in any material respect, due to the fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, an equitable adjustment shall be made in the contract price to

compensate the Contractor for the additional services involved in such examination and reconstruction and if completion of the work has been delayed thereby, he shall, in addition, be granted a suitable extension of time.

F. Unless otherwise provided in this contract, acceptance by the Board shall be made as promptly as practicable after completion and inspection of all work required by this contract. Acceptance shall be final, and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud or as regards to the Board's rights under any warranty or guarantee.

3.26 CONTRACT AND WORK ORDER CLOSE-OUT

Satisfactory project close-out is a condition of final acceptance of the Work and will be performed after the following is completed.

Contractor shall deliver to the Engineer all construction records, certifications, and other documents in accordance with these Contract Documents. All damaged or deteriorated surfaces shall be touched up or repaired to the satisfaction of the Engineer. All incomplete or defective work shall be remedied as required by the provisions stated herein for Inspection and Acceptance.

Contractor shall remove from the site all of his temporary structures, trailers, tools equipment, supplies, and unused or waste materials. Roads, fences, and other facilities damaged or deteriorated because of Contractor's operations shall be repaired to the satisfaction of the Engineer. All ground surfaces affected by Contractor's operations shall be restored by grading, raking, smoothing, and other necessary operations. The site shall be thoroughly cleaned and all rubbish, trash and debris removed.

Board issued hydrant meters shall be returned to the Sewerage and Water Board Meter Shop, 8800 South Claiborne Avenue, for final reading after completion of the Contract. Return of the meter is a condition of acceptance of the contract.

After all work is complete, any necessary changes in the Contract amount will be determined by the Engineer and the necessary adjustment, if any, will be incorporated into a final Change Order.

Upon satisfactory completion of closeout activities and delivery of Record Drawings to the Engineer, Contractor shall submit applications for Final Payment as provided in the General Specifications.

3.27 AS-BUILT DRAWINGS

- A. The Contractor shall furnish one (1) neat and legibly marked blue line set of contract drawings to depict actual "as-built" conditions.
- B. The "as-built" drawings shall show all construction, elevation, equipment, mechanical and electrical systems and connections as installed or built.
- C. The work under this contract will not be considered "complete" until "as-built" drawings, prepared to the satisfaction of the Engineer, are received.
- D. There will be no direct payment for furnishing the "as-built" drawings specified above.

E.	As-Built Drawings will not be required unless manholes have been added or the location of the main and service connections have been modified.

SECTION 2

ATTACHMENT 1

Storm Water Pollution Prevention Plan (SWPPP)

And

Storm Water Best Management Practices (BMP) Requirements

GENERAL

- 1. The contractor shall prepare and maintain a Storm Water Pollution Prevention Plan (SWPPP), which describes in specific details the Contractor's program to prevent contamination of the storm water collection system for this project. A suggested SWPPP Templates and Sample Inspection Report, as well as other valuable information can be found at EPA's website http://cfpub.epa.gov/npdes/stormwater/swppp.cfm.
- 2. Contractor shall implement, maintain, inspect and remove all erosion and sediment controls identified in the SWPPP. The program shall address both common construction activities and extraordinary events.
- 3. Contractor shall include Water Pollution Control Drawings (WPCD) in the SWPPP to illustrate the locations, applications and deployment of Best Management Practices (BMPs) identified in the SWPPP. The WPCDs shall be included as an attachment to the SWPCP.
- 4. Best Management Practices (BMPs): A Best Management Practice is a technique, process, activity, or structure used to reduce the pollutant content of a storm water or non-storm water discharge. BMPs may include simple, non-structural methods such as good housekeeping,
- staff training, and preventive maintenance. Additionally, BMPs may include structural modifications such as the installation of berms, canopies or treatment control
- 5. The Contractor shall comply with laws, rules, and regulations of the State of Louisiana and agencies of the United States Government prohibiting the pollution of lakes, wetlands, streams, or river waters from the dumping of contaminates, refuse, rubbish or debris.
- 6. The contractor shall submit copies of the SWPPP (as per requirement of Section 2, Paragraph 2-20) a minimum of 10 working days prior to beginning construction, to the Engineer. **Construction shall not begin until the SWPPP is approved.** Contractor shall update the SWPPP as necessary during the work to prevent contamination of the storm water collection system.

7. Before start of work, Contractor shall train all employees and subcontractors on the approved SWPPP and related WPCD and provide the Sewerage and Water Board with

written documentation of said training.

8. Suggested BMPs can be obtained from Ella Barbe, LA DEQ Small Business Assistance

Program, 201 Evans Rd. Bldg. 4, Suite 420 Harahan LA. Phone 504-736-7739, e-mail:

ella.barbe@la.gov

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CONSTRUCTION

The contractor shall keep a copy of the SWPPP on the job site. The contractor shall provide continuously at the jobsite all the tools, equipment, and materials necessary to implement the SWPPP at all times from project initiation through completion, including any punchlist or warranty work on the project. At a minimum the following requirements shall be met as applicable, to the maximum extent practicable, at construction sites:

- 1. **Storm Drain System Protection:** At the first order of work, the Contractor shall protect the existing storm drain system from entrance of construction debris and pollutants. Such protection shall include implementing the BMPs as outlined in the SWPPP. Protection shall prohibit the discharge of untreated runoff from temporary or permanent street maintenance/landscape maintenance material and waste storage areas from entering the storm drain system. Sediment that is generated on the project site shall be retained using structural drainage controls. In addition, the protection system shall have a minimum of three features: 1) a particulate filter of geosynthetic material securely fastened in place such that it cannot be bypassed without significant physical damage; 2) a prefilter for the particulate filter; and 3) onhand materials to close off the inlet or opening in the case of a significant pollution spill. Contractor shall monitor and maintain all storm drain inlet protection devices during rain events to prevent flooding.
- 2. **Material Management & Storage:** No construction-related materials, wastes, spills or residues shall be discharged from the project site to streets, drainage facilities or adjacent properties by wind or runoff. All materials and/or equipment storage areas where liquid construction materials are placed shall be protected by a physical barrier capable of containing the entire volume of stored liquid materials. During active construction activities, portions of the barrier may be removed for access. However, the barrier materials must be readily accessible for replacement by onsite construction personnel. The barrier must be in place at all times during the absence of Contractor personnel at the storage site. Building materials shall be placed on pallets and covered in event of rain. Do not store materials in the street or gutter area.
- 3. **Equipment & Vehicle Maintenance:** Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained at the project site and shall not be allowed to discharge from the project site to streets, drainage facilities or adjacent properties by wind or runoff. The Contractor shall inspect vehicles and equipment on

each day of use. Leaks shall be repaired off-site if possible. If necessary to repair on site, the runoff must be contained or the problem vehicle or equipment shall be removed from the project site until repaired. If necessary, drip pans shall be placed under the vehicles or equipment while not in use to catch and/or contain drips and leaks.

4. **BMP Inspection:** The contractor shall inspect all pollution control BMPs regularly. The Contractor shall also repair/replace any damaged or clogged element on a daily basis. During periods of precipitation where any runoff occurs, the system shall be checked twice a day, seven days a week, whether or not any work has been performed. The daily

checks shall be between 6 a.m. and 9 a.m., and 4 p.m. to 8 p.m. The contractor shall keep a monitoring inspection log of each inspection.

5. Spill Prevention & Cleanup Plan: Contractor shall have a spill prevention plan and spill cleanup materials readily available and addressed in the SWPPP. Spills shall be cleaned	
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up immediately using dry methods if possible. Spill cleanup material shall be properly disposed off site. Contractor shall keep a record of any spills in the inspection log. In addition, at the end of the project, the Contractor must certify that all contaminated materials have been properly disposed in accordance with the SWPPP.	
6. Asphalt & Concrete Activities: Asphalt and concrete activities shall be scheduled for dry weather. Contractor shall prohibit saw cutting during a storm event of 0.25 inches or greater. Store bags of cement away from gutters and storm drains, sealed and covered, protected from rainfall runoff and wind. Place tarp under cement mixer before operating	
to catch spills. Never dispose of cement washout or concrete dust onto driveways, streets, gutters or storm drains.	
7. Sidewalk Washing: The following methods should be utilized to prevent discharge of sidewalk cleaning wastewater into the storm drain system:	
a. Sweep and pick up all areas to be cleaned before using water.	
b. Manually scrape gum from sidewalks and other surfaces.	
c. Must use high pressure and low volume of water with no additives and at an average usage of 0.006 gallons per square foot of surface area to be rinsed	
d. Use a wet/dry vacuum to collect wash water for disposal. Large volumes of wash water may require the use a small sump pump to remove wash water from the job site.	
e. One or more of the following methods are recommended to prevent pollutants from entering the storm drain system:	
 Sandbags can be used to create a barrier around storm drains. * 	

• Rubber mats or plugs can be used to seal drain openings. *

• Temporary berms or containment pads help keep water on site. *

• Use berms of sandbags to direct wash water to landscaping. *

• Use large squeegees to accumulate sheet flow for collection.

* Remember to remove plugs, berms, and sandbags or you may be liable for possible flooding.

f. Wash water that may contain hazardous waste such as oil-saturated absorbents, water with lead or other heavy metals from oxidized paint, and solvent cleaners requires special treatment and must be disposed of through a hazardous waste facility.

8. **Employee BMP Training:** Contractor shall train employees and subcontractors on BMP implementation, general good housekeeping, and proper spill containment and cleanup. Before start of work, Contractor shall provide the Board with written documentation of training and keep all documentation in the SWPCP.

9. **Inspection:** Contractor shall inspect and repair or replace, as needed, all job site BMPs a minimum of:

- Biweekly
- Before, during and after a major rain event.

Contractor shall document the inspections in the SWPPP.

10. Dewatering: Avoid dewatering discharges where possible by using the water for dust control, infiltration, etc...

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SECTION 3 TRAFFIC CONTROL AND REGULATION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for notification, signs, signals and traffic control devices.
- B. Qualifications and requirements for use of flagmen.

1.02 SUBMITTALS

The approved traffic control plan shall be submitted with the invoice along with the associated work order and must contain the date, location of work performed and City of New Orleans representative that approved the work.

1.03 MEASUREMENT AND PAYMENT

- A. Local Notification Streets: The department of Public Works maintains a list of local notification streets which includes but is not limited to the street listings in *APPENDIX F*. The contractor shall be paid on a unit price bid for traffic control plan if different than shown on Drawings and permitting, including obtaining approvals by local government that are maintained on this list. This unit price includes approval from Owner and any other entity prior to commencing work in their right-of-way, provision of traffic control devices, barrels, barricades, control panels, signage including arrow boards as necessary for the project, relocation of traffic signs and control devices as necessary, relocating and replacing existing signs and provision of equipment and personnel as necessary to protect the work and the public in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).
- B. State Maintained Roadways: The contractor shall be paid on a unit price bid for permitting, including obtaining approvals by state and federal government. The Contractor shall be paid on a unit price bid for the preparation and submittal of traffic control plan if different than shown on Drawings, and subsequent approval from Owner and any other entity prior to commencing work in their right-of-way, provision of traffic control devices, barricades, control panels, signage including arrow boards as necessary for the project, relocation of traffic signs and control devices as necessary, relocating and replacing existing signs and provision of equipment and personnel as necessary to protect the work and the public in accordance with the Manual of Uniform Traffic Control Devices (MUTCD). The amount invoiced shall be determined based on the approved schedule of values for traffic control and regulation.
- C. No separate measurement and payment will be made for flaggers as required for the contract. Flaggers shall be considered incidental to the traffic control requirements.
- D. Local/Residential: All traffic controls for local and residential work that is not on the Department of Public Works most recently maintained List of "Notification Streets" are incidental. No separate measurement and payment will be made for the provision of traffic control devices, barrels, barricades, control panels, signage including arrow boards as necessary for the project, relocation of traffic signs and control devices as necessary, relocating and replacing existing signs and provision of equipment and personnel as necessary to protect the work and the public in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).

1.04 NOTIFICATION REQUIRMENTS

A. Notification and traffic control requirements shall strictly adhere to the requirements set forth in the General Specifications for Street Paving 2015 Edition issued by the Department of Public Works City of New Orleans, Louisiana. Copies of the Specifications may be obtained from: City of New Orleans Department of Public Works 1300 Perdido Street - Room 6W02 New Orleans, Louisiana, 70112

Price: \$100.00 per printed copy or downloaded at no cost at http://www.nola.gov/dpw/ The Contractor shall give no less than a 48 hours advanced notification of work and street impairment to the SWBNO public relations department, police, fire and other city departments and to the general public. The Contractor shall designate person(s) who can be contacted and shall be available on a 24 hour, seven days per week basis throughout the life of the project. The name and telephone number of the designated individual(s) shall be furnished to the Engineer prior to starting construction. The individual contacted shall be able to respond to emergencies occurring along the project area during normal, after work and holiday hours.

- B. The Contractor shall notify and shall obtain advanced approval for work in the roadway from the City of New Orleans Department of Public Works Traffic Division on designated roadways listed in *APPENDIX F –NOTIFICATION STREETS*. A traffic control plan indicating, in detail, the location of all signs, lights, and barricades must be prepared by the Contractor for the written approval of the City of New Orleans Department of Public Works Traffic Engineer, no less than two, nor more than ten working days in advance of implementation. It shall be the Contractor's responsibility to obtain these approvals in writing.
- C. The Contractor shall notify the City of New Orleans Department of Public Works Traffic Engineer immediately If the project requires changes or modifications to existing traffic control signs, parking meters, etc.

PART 2 MATERIALS

2.01 SIGNS, SIGNALS, BARRICADES AND DEVICES

- A. With reference to Section 713 of the LDOTD Louisiana Standard Specifications for Roads and Bridges, Latest Edition, Contractor shall be required to furnish, install and maintain temporary construction barricades, lights, signals, pavement markings and signs; provide flagmen; and comply with all other requirements regarding the protection of the work, workmen and safety of the public. Signs, barricades, temporary pavement markings, etc., shall conform to the details shown on the plans, the MUTCD (latest revision) and these specifications.
- B. Signs and barricades, and arrangements thereof, as shown on the plans, are minimum requirements and shall not be construed as negating requirements for additional proper and special signs and barricades, etc., as may be required by the Engineer. Appropriate signs for special conditions shall be furnished and installed as directed. Requirements as to proper signs, barricades or other safety precautions promulgated by the Contractor's insurers are not negated by these specifications. These specifications shall not be construed as relieving the Contractor of any of his responsibilities for the safety of the traveling public, for any liability in connection therewith, or compliance with City and State laws or ordinances.
- C. Traffic Cones and Drums, Flares and Lights: As approved by local jurisdictions

PART 3 EXECUTION

3.01 CONSTRUCTION REQUIRMENTS

- A. The Contractor is required to have all materials and equipment on hand before closing the roadway. The Contractor must submit a traffic plan to the City of New Orleans Department of Public Works and obtain their approval of the traffic plan prior to closing the roadway. A copy of the approved traffic plan shall be submitted to the Engineer upon request and shall be submitted with the invoice.
- B. Signs, barricades and related devices will be required when the Contractor's work is in progress on portions of the work covered by the Notice to Proceed, or when operations are suspended but the traveled portion of the road or sidewalk is not in a safe condition for the traveling public. During such times that

barricades are not in place, appropriate regulatory signs shall be erected and maintained by the Contractor.

- C. All traffic control devices (roadway markings, signs, signals, signal controls, etc.) destroyed as a result of construction shall be replaced per City of New Orleans specifications at no cost to the Sewerage and Water Board.
- D. In no event shall construction work under the contract begin until notifications have been made and signs, barricades and other traffic control devices, as provided above, have been erected.
- E. The Contractor shall not obstruct the normal flow of traffic from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. on designated major arterials or as directed by the Owner's Representative and The Contractor shall maintain fifty (50%) percent of the roadway accessible to vehicular traffic at all other times.
- F. Relocate traffic signs and appurtenances as Work progresses to maintain effective traffic control.
- G. Owner's Representative may direct Contractor to make adjustments to traffic control signage to eliminate driver confusion and maintain orderly traffic flow during construction at no additional cost to the Owner.
- H. The Contractor shall maintain local driveway access to residential and commercial properties adjacent to work areas at all times unless approved. Use all-weather materials approved by Owner's Representative to maintain temporary driveway access to commercial and residential driveways. The Contractor shall also give special consideration to maintain access by constructing temporary driveway pavement for schools, apartment complex, day care facilities, hospitals, clinics, retirement and assisted living facilities. There is no direct pay for this.

3.02 FLAGMEN

- A. The Contractor may use flagmen who are off-duty, regularly employed, uniformed peace officers or certified flagmen at locations approved by the Owner or Owner's Representative.
- B. Use flagmen to control, regulate and direct an even flow and movement of vehicular and pedestrian traffic, for periods of time as may be required to provide for public safety and convenience, where:
- a. Where multi-lane vehicular traffic must be diverted into single-lane vehicular traffic.
- b. Where vehicular traffic must change lanes abruptly.
- c. Where construction equipment either enters or crosses vehicular traffic lanes and walks.
- d. Where construction equipment may intermittently encroach on vehicular traffic lanes and unprotected walks and crosswalks.
- e. Where traffic regulation is needed due to rerouting of vehicular traffic around the work site.
- f. Where construction activities might affect public safety and convenience.
- C. The use of flagmen is for the purpose of assisting in the regulation of traffic flow and movement, and does not in any way relieve the contractor of full responsibility for taking such other steps and provide such other flagmen or personnel as the Contractor may deem necessary to protect the work and the public, and does not in any way relieve the Contractor of his responsibility for any damage for which he would otherwise be liable.

3.03 MAINTENANCE OF EQUIPMENT AND MATERIAL

Designate individual to be responsible for maintenance of traffic handling around construction area. This individual must be accessible at all times to immediately correct any deficiencies in equipment and materials used to handle traffic, such as missing, damaged, or obscured signs, drums, barricades, or pavement markings. Give name, address and telephone number of designated individual to the Owner's Representative.

Make daily inspections of signs, barricades, drums, lamps and temporary pavement markings to verify that these are visible, and in good working order, and in conformance with LaDOT or any other entity. When not in conformance immediately bring equipment and materials into conformance by replacement, repair, cleaning, relocation, and/or realignment.

Keep all equipment and materials, especially signs and pavement markings, clean and free of dust, dirt, grime, oil, mud or debris.

3.04 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and the Owner's operations.
- B. Monitor parking of construction personnel's vehicles in existing facilities. Maintain vehicular access to and through parking areas.
- C. Prevent parking on or adjacent to access roads or in non-designated areas.

3.05 SUSPENSION OF WORK

- A. The Engineer will have the authority to suspend the work wholly or in part due to the failure of the Contractor to properly notify the entities stated in *SECTION 3 TRAFFIC CONTROLS AND REGULATIONS, PART 1.04 NOTIFICATION REQUIREMENTS*
- B. The Engineer will have the authority to suspend the work wholly or in part due to the failure of the Contractor to the correct conditions unsafe for the workmen or the general public; for failure to carry out provisions of the contract; for failure to carry out orders; for such period as he may deem necessary due to unsuitable weather; for conditions under the control of the Contractor considered unsuitable for the prosecution of the work or for any other condition or reason affecting the public welfare, health and safety. No allowance shall be made to the Contractor for damages sustained or alleged to have been sustained by him on account of such suspension of work. The period of such suspension, to be determined by the Engineer.
- C. If the work is suspended, all materials delivered at the work but not yet placed therein shall be neatly piled so as not to constitute an obstruction or hazard and shall remain the responsibility of the Contractor. Contractor shall have the prerogative to remove materials, tools, etc. to protect same during such time of work suspension.

END OF SECTION 03

SECTION 4 MATERIALS

PART 1 GENERAL

1.01 SECTION INCUDES

Material requirements

PART 2 MATERIALS

2.01 PIPE AND FITTINGS

The new sewer pipe shall be PVC SDR-26, for pipe sizes of 6" through 15", manufactured in accordance with ASTM D2241 specification (latest edition). For pipe sizes of 18" through 27", the pipe shall with conform to ASTM F-679 Class T-1. All materials shall conform with Sections C and D of the Sewerage and Water Board General Specifications, except where amended by these Special Specifications.

2.02 PIPE BEDDING

All references made within the Contract to clam shells shall be understood to mean clam shells or approved equal. In the event that clam shells are not available, an alternate material shall be Class I Angular Material (1/4" to 1-1/2") ASTM D2321 (latest edition); i.e., coral, slag, cinders, crushed concrete or crushed stone. There will be no additional payment for the alternate material. The Board reserves the right to approve the type of material.

2.03 LUMBER

Lumber shall be No. 2 Common Southern Pine unless substitutes are requested that meet with the approval of the Engineer.

2.04 SELECT BACKFILL

Select backfill shall be an AASHTO classification A-3 and be free of all organics and debris.

2.05 FILTER FABRIC

The filter fabric shall be a non-woven pervious sheet of plastic yarn constructed so that yarns will retain their relative position with respect to each other. Edges of fabric shall be finished to prevent the outer yarn from pulling away from the fabric. The fabric shall conform with the following requirements:

a. Weight oz/sq. yd. (min.)
b. EOS (U.S. Sieve)
c. Average Grab Tensile
g. ASTM D1910
50+ DOTD TR630
90 ASTM D168

lbs./in., (min)

d. Grab Tensile (any dir.) 75 ASTM D1682

lbs./in., (min.)

e. Permeability Factor 8.0 DOTD TR631

cm./sec., (min.)

The fabric shall be Amoco - Propex 4545; Celanese Fibers - Mirafi 140N; Hoechst Fibers - Trevira Spunbound S1115.

2.06 SURFACE STONE

Surface stone and sub-base shall be an AASHTO A-1-b material.

2.07 CERTIFICATION

The Engineer may waive the materials testing requirements of the Specifications and accept the Manufacturer's written certification that the materials to be supplied meet those requirements. Material test data may be required as part of the certification.

2.08 TRADE NAMES OR EQUAL

The Contractor must supply any of the materials specified or offer an equivalent. The Engineer shall determine whether the material offered is equivalent to that specified. Adequate time shall be allowed for the Engineer to make this determination. Whenever any particular material, process, or equipment is indicated by patent, proprietary or brand name, or by name of manufacturer, such wording is used for the purpose of facilitating its description and shall be deemed to be followed by the words "or equal". A listing of materials is not intended to be comprehensive, or in order of preference. The Contractor may offer any material, process, or equipment considered to be equivalent to that indicated. Unless otherwise authorized by the Engineer, the substantiation of offers must be submitted within 35 days after award of Contract.

The Contractor shall, at his expense, furnish data concerning items offered by it as equivalent to those specified. The Contractor shall have the material tested as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the item will fulfill its intended function. Test methods shall be subject to the approval of the Engineer. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the substitute item is equivalent. The Engineer's findings shall be final. Installation and use of a substitute item shall not be made until approved by the engineer. If a substitute offered by the Contractor is not found to be equal to the specified material, the Contractor shall furnish and install the specified material. The specified Contract completion time shall not be affected by any circumstance developing from the provisions of this subsection.

PART 3 EXECUTION

3.01 QUALITY OF WORK

All materials, parts, and equipment furnished by the Contractor in the Work shall be new, high grade, and free from defects. Quality of work shall be in accordance with the generally accepted standards. Materials and work quality shall be subject to the Engineer's approval. Materials and work quality not conforming to the requirements of the Specifications shall be considered defective and will be subject to rejection. Defective work or material, whether in place or not, shall be removed immediately from the site by the Contractor, at his own expense, when so directed by the Engineer. If the Contractor fails to immediately replace any defective or damaged work or material after written notice, the Engineer may cause such work or materials to be replaced. The replacement expense shall be deducted from any amount to be paid to the Contractor.

3.02 TEST OF MATERIALS

Before incorporation in the Work, the Contractor shall submit samples of all materials, as the Engineer may require, at no cost to the Agency. The Contractor, at its expense, shall deliver the materials for testing to the place and at the time designated by the Engineer. Unless otherwise provided, all initial testing and a reasonable amount of retesting shall be performed under the direction of the Engineer, and at no expense to the Contractor. The Contractor shall notify the Engineer in writing, at least 15 days in advance, of his intention to use materials for tests specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material. If the notice of intent to use is sent before the materials are available for testing or inspection, or is sent so far in advance that the materials on hand at the time will not last but will be replaced by a new lot prior to use on the Work, it will be the Contractor's responsibility to re-notify the Engineer when samples which are representative may be obtained.

3.03 SUBMITTALS

Submittals on all products used on the job will be required before the initial work order is issued.

SECTION 5 ORDERING OF WORK

PART 1 GENERAL

1.01 CONTRACTOR'S NOTIFICATION

Approximately 90 days after the bid opening and as the Sewerage and Water Board has the need to repair sewer mains, the Contractor will be notified in writing to proceed with the work on the sewer in the form of a "Batch Work Order".

1.02 NOTIFICATION TO THE DEPARTMENT OF PUBLIC WORKS

The Contractor must complete the Department of Public Works Maintenance Department Forms SD600-ML and SD500-ML describing where the Contractor will work that day. The Contractor will be responsible for delivering this information to the Department of Public Works Maintenance Yard, 838 S. Genois on a daily basis. There is no direct pay for this requirement.

1.03 NOTIFICATION TO RESIDENTS AND BUSINESSES

The Contractor shall notify all residents and businesses directly affected by the work, in writing, as to the nature of the work to be done, no less than forty eight (48) hours prior to the commencement of mobilization, unless directed otherwise by the Engineer.

1.04 NOTIFICATION TO INSPECTORS

Prior to commencing work at the authorized job site(s), the Contractor must notify the Sewerage and Water Board's Technical Services Department (942-3876), 48 hours before beginning work to arrange inspection services. The Contractor must e-mail a list of the work sites that will be worked that day. This information must be sent in the morning before 7:30 AM every day that work continues at any site. This form shall state the work order number, site location and the nature of the work performed, i.e., pipe repair or pavement restoration.

1.05 STIPULATIONS OF A "BATCH WORK ORDER"

The Contractor must inspect work sites within five (5) consecutive calendar days after the date of the "Batch Work Order". If more than one work location is given on the "Batch Work Order", the Contractor must work on the jobs in the order given, from the first to the last or as directed by the Engineer, or all at once. If the Contractor cannot work on all jobs on a "Batch Work Order" at once, the Contractor must, within five (5) consecutive calendar days of the "Batch Work Order" date, inspect all locations given on the "Batch Work Order" and fill and/or barricade all depressions on the surface to prevent accidents. If the Board's barricades are present, the Contractor is to replace them with his own. The Contractor must notify the Sewerage and Water Board's Emergency Phone Center (942-3833) of the location of the Board's barricades and of the need to have someone from the Board remove the Board's barricades from the site. Also, within five (5) consecutive calendar days of the "Batch Work Order" date, and if ordered by the Engineer, the Contractor must set up a sewer bypass system and install the required traffic control devices to guide motorists around the sewer bypass system. This will be in accordance with a traffic plan approved by the City of New Orleans Traffic Department. A sewer bypass will be ordered if the sewer level is up to the top of the largest size sewer main in the upstream sewer manhole, or if a sewer overflow is imminent.

The responsibility of maintaining the work site once the "Batch Work Order" is issued requires the Contractor to accept all liability associated with sewer fluid levels, roadway conditions, job site safety, and any other risk associated with the faulty sewer line which is to be repaired.

PART 2 MATERIALS

2.01 INVENTORY AND TRAFFIC PLAN

The Contractor is required to have all materials and equipment on hand before closing the roadway. The Contractor must submit a traffic plan to the City of New Orleans Department of Public Works and obtain their approval of the traffic plan prior to closing the roadway. A copy of the approved traffic plan shall be submitted to the Engineer upon request (see SECTION 3 TRAFFIC CONTROL AND REGULATION)

PART 3 EXECUTION

3.01 WORK PROGRESS

Work must continue (with the exceptions of nights, holidays and weekends) at a site until the sewer main is repaired, backfilling is completed, the pavement or other surface type is restored and the final acceptance is attained. Contractor will be required to provide sufficient staff to complete the quantity of work as specified in the proposal section within a one year time period. The Contractor is allowed to work at multiple locations simultaneously provided that the work progress is continuous at all open work sites

The contractor shall complete all phases of each point repair on the "Batch Work Order", including but not limited to pipe work, backfill, and pavement restoration, within a maximum of fifteen (15) working days from the date of the beginning of excavation for that particular repair.

Failure to start within five (5) days or within twenty-four (24) hours (See Section 4-4) or failure of the contractor to complete all phases of each repair on the "Batch Work Order", including but not limited to pipe work, backfill, and pavement restoration, within a maximum of fifteen (15) working days from the date of the beginning of excavation for that particular repair will result in liquidated damages as indicated in Section 2-9 of the special specifications. The Engineer will consider any extenuating circumstances when evaluating the Contractor's response and completion times.

3.02 EMERGENCY WORK

In cases of emergencies the Contractor will be required to mobilize and begin repairs within 24 hours when requested by the Engineer. There is no direct pay for this requirement.

3.03 COORDINATION WITH PUMPING STATIONS

The Contractor shall be required to notify the Sewerage and Water Board's Operations Department (942-2960) to coordinate the pumping station operation with the work so as to lower the fluid level at the work site. The Contractor must notify sewer operations at least one (1) working day in advance of scheduled work.

3.04 INSPECTION OF WORKSITE

The Contractor MUST perform an inspection of the work area prior to the arrival of his equipment. Existing damage to sidewalks, driveways, and other structures should be documented. The condition of all plant life in this area should also be documented. THE CONTRACTOR SHALL TAKE IDENTIFIABLE PICTURES OF ALL DEFECTS IN THE VICINITY OF THE JOBSITE BEFORE THE COMMENCEMENT OF WORK. The use of a video camera to record all conditions is recommended. The Contractor is urged to be very thorough with his accumulation of photographs and their documentation. Authenticity of claims by area residents will be judged based upon this information. Photographs of the pre-existing conditions will be made available to the Engineer at his request. There is no direct pay for this requirement.

3.05 COMMUNICATION

The Contractor's representative supervising their field operations is required to carry a cellular telephone during normal working hours. All costs for the telephone and communications between the Engineer and the Contractor's representative will be paid for by the Contractor.

3.06 UTILITIES

A. COORDINATION WITH OTHER AGENCIES

The Contractor shall notify all public and private utilities immediately in order to have their facilities located and/or marked at the site. The Contractor will be required to coordinate his operations with the Electric and Technical Services Departments of the Sewerage and Water Board, Entergy Gas and Electric, South Central Bell, Cox Cable, and all other affected public or private agencies. The Contractor shall exercise caution in making excavations to avoid damage to all existing facilities and he will be held responsible for damage to any and all facilities and to the private property of others. Any work started and then abandoned due to conflicts encountered with utilities will be restored at the Contractor's expense if the Contractor began the work prior to having all the utilities in the area marked.

B. LIST OF HOUSE CONNECTIONS

If requested by the Contractor, a list of the locations of existing water taps at the main and of sewer house connections can be furnished by the Sewerage and Water Board House Connection Department. However, it shall be the responsibility of the Contractor to obtain this information from that department and to verify these locations at the job site. The Contractor is required to use an underground pipeline locator to locate water services. When excavating, the Contractor shall not cut the water services or any other crossing utility to provide access for a trench box or for convenience, but shall drive sheeting on the sides of the service or utility, at no cost to the Board. If a water service or main is broken, the Contractor will not be allowed to repair it and must notify the Sewerage and Water Board's Emergency Phone Center (942-3833) of the location and nature of the break, and request that a Sewerage and Water Board repair crew make the repair, unless otherwise directed by the Engineer. The Contractor must use equipment or materials to deflect jetting water and minimize the hazard and inconvenience to the public until a Board crew arrives at the site, at no cost to the Board. The Contractor will be charged for the repair on a force account basis. The cost of the repair will be deducted from amounts due or to become due the Contractor. The Sewerage and Water Board shall not be held liable for any expenses or damages occurring while the Contractor is waiting for the Board to repair the broken water line. The existing sewer house connection locations and water tap locations submitted to the Contractor will be taken from Sewerage and Water Board records and could vary from the actual locations.

3.07 CASSWORKS LOGS

The Contractor is required to fill out daily CASSWORKS logs for the Sewerage and Water Board records. These logs will be provided by the Engineer and the Contractor's comments should describe the work performed at the work sites. These logs should include information as to the type of work, who it was performed by, location of work performed, date of work, and time of arrival and departure. It shall be the responsibility of the Contractor to deliver these logs on a weekly basis to the Technical Services Office of the Sewerage and Water Board, 2900 Peoples Ave. The Engineer has the right to add or delete required information to the form at no additional charge. There is no direct pay for this requirement.

END OF SECTION 5

SECTION 6 RESTORATION OF SEWER MAIN BY POINT REPAIR

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Repairs to existing sewer lines by replacing lengths of failed pipe.
- B. Replacement of segments of the existing sanitary sewer system, including collection lines, service lines, and service connections, as indicated on the Contract Drawings or Proposal Form. The pipe used for replacements and point repair shall be as specified below.
- C. Replacement of manhole connections where required as specified herein.

1.02 SUBMITTALS

- A. Submittals shall conform to requirements of all sections and provisions of these specifications.
- B. The Contractor shall furnish a certificate from the pipe manufacturer indicating that the pipe and jointing material meets all applicable requirements of these specifications.
- C. The Contractor shall provide the Engineer with the Geospatial Information location of each clean-out cap, manhole, sewer house connection way or any other appurtenance installed or replaced. These submittals shall be in accordance with SECTION 13 GEOSPATIAL INFORMATION SYSTEMS.

1.03 MEASUREMENT AND PAYMENT SEWER POINT REPAIR & BEYOND POINT REPAIR

- A. Measurement: Measurement shall be on a per each for the first 12 feet of pipe and linear foot basis thereafter for each foot in excess of the initial 12 feet, measured to the nearest whole foot of sanitary sewer line. Measurement will be made from the connecting point at the upstream location to the connecting point at the downstream location. Measurement of the sewer line depth shall be the invert of the sewer line at the center of the point repair. This item includes the replacement of all service connections to the mainline (including wyes, tees and any other fittings and appurtenances necessary)
- B. Measurement for extra length repair is on a linear foot basis for each material type and diameter in excess of the 12 foot replacement length.
- C. Payment: Payment shall be made at the <u>unit price bid per linear foot of sanitary sewer point repair in,</u> in accordance with the Specifications contained herein. This price and payment shall be full compensation for all material including fitting, labor, equipment, watertight connections, removal of existing pavement, excavation, bedding, backfill, traffic control and devices, disposal of excess excavation material, and any other related or incidental items required to complete this item of work for which separate payment is not provided for under other items in the Proposal Form. Sewage Flow Control and Diversion Pumping shall be paid via a separate pay item.

1.04 MEASUREMENT AND PAYMENT OF 6" SERVICE LATERALS/ HOUSE CONNECTIONS

- A. Measurement: Measurement shall be on a per linear foot basis, measured to the nearest whole foot on sanitary sewer service lateral lines. Measurement will be made from the connecting point at the wye, tee, or saddle to the property line or re-connection point identified by the engineer.
- B. Payment: Payment shall be made at the unit price bid per linear foot of sanitary sewer service lateral lines replaced in accordance with these Specifications contained herein. The service lateral lines shall be replaced from the connection point at the wye, tee or saddle to the property line or re-connection point identified by the Engineer. This price and payment shall be full compensation for all material, labor, equipment, watertight connections, removal of existing pavement, excavation, bedding, backfill, traffic control and devices, disposal of excess excavation material, and any other related or incidental items required to complete this item of work for which separate payment is not provided for under other items in the Proposal Form.

1.05 MEASUREMENT AND PAYMENT OF ABANDONMENT OF POINT REPAIR

If point repair is abandoned, payment will be made on a cubic yard basis for excavation required to expose existing pipe.

1.06 PERFORMANCE REQUIRMENTS

- A. Owner's Representative may identify potential locations for point repair, but the Contractor is responsible for verifying locations.
 - B. Owner's Representative will authorize each point repair after failed points are located. Do not make point repairs without prior approval of Owner Representative.
- C. Replace carrier pipe for all point repairs unless otherwise directed by the Owner's Representative.
- D. Minimum length of pipe to be replaced shall be determined by the Owner's Representative.

PART 2.0 MATERIALS

Materials for point repairs, other than those specified, may be considered for use in rehabilitation of existing sewers. For consideration of other materials, submit complete manufacturer's data including material, sizes, flow carrying capacity, installation procedures and history of similar installations to Owner Representative for evaluation

2.01 POLYVINYL CHLORIDE (PVC) PIPE

- A. Polyvinyl chloride (PVC) gravity sewer pipe and fittings 5-in. through 15-in. diameter shall conform to ASTM D3034 Standard Specifications for Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR 26. Full body SDR 35 fittings shall be used for all connections.
- B. Polyvinyl chloride (PVC) gravity sewer pipe and fittings 18-in. through 36-in. diameter shall conform to ASTM F679 Standard Specification for Polyvinyl Chloride (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings.
- C. The supplier shall be responsible for the performance of all inspection and testing requirements specified in ASTM D3034 - Standard Specifications for Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings or ASTM F679 - Standard Specification for PolyVinyl Chloride (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings, as applicable. Complete records of inspections, examinations and tests shall be kept and submitted to the Board. The Board reserves the right to perform any of the inspections set forth in the Specification where such inspections are deemed necessary to assure that material and services conform to the prescribed requirements.
- D. Pipe shall be furnished in standard laying lengths not exceeding 20 feet.
- E. The minimum pipe stiffness at 5% deflection shall be 46 psi for all sizes when tested in accordance with ASTM D2412 External Loading Properties of PVC Pipe by Parallel Plate Loading. There shall be no evidence of splitting, crackling, or breaking when the pipe is tested as per ASTM D2412 specifications.
- F. The Contractor shall furnish a certificate from the pipe manufacturer indicating that the pipe meets all applicable requirements of these specifications.

2.02 JOINTING MATERIAL

- A. New pipe shall be joined with an integral bell and spigot-type rubber gasketed joints conforming to ASTM D3212 Standard Specifications for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals. Joints shall permit contraction, expansion and settlement, and yet maintain a watertight connection.
- B. Connections between existing and new pipe shall be jointed with rigid non-shear couplings as specified herein.
- C. All fittings and accessories shall be furnished by the pipe supplier and shall have bell and/or spigot compatible with the pipe, and be from a single manufacturer.
- D. Unless otherwise specified or noted on the Drawings, tees, cleanouts, and stoppers or plugs shall be the same material used to repair the main sewer and have an inside diameter of the same size as the existing line, except that it shall in no case have a diameter smaller than 6-inches. The plug and installation shall be able to withstand all test pressures involved without leakage.

PART 3.0 EXECUTION

3.01 PROTECTION

A. The Contractor shall locate all existing underground utilities before beginning excavation of sewer mainlines, service connections and service laterals as shown in the Drawings. The Contractor is solely responsible for utility location, verification and relocation when required. Carefully protect all existing sewers, water lines, gas lines,

electrical lines, tele-communication lines, sidewalks, curbs, gutters, pavements, or other utilities or structures in the vicinity of the work from damage at all times. Where it is necessary for the proper accomplishment of the work to repair, move, and/or replace any such utility or structure, do so in accordance with the provisions set forth in the General Specifications and Special Specifications contained herein.

- B. The Contractor is solely responsible for locating, location verification and scheduling any relocation of all utilities. Where service connections or lines from water or gas mains or sewers to the user's premises are disconnected, broken, damaged, or otherwise rendered inoperative by the Contractor for any reason, the Contractor shall, at Contractor's own expense, arrange with the respective utility company for any repairs of lines under their jurisdiction, or for any lines not within their jurisdiction; the Contractor shall repair or replace same and restore service to the premises. Any such work to be done at the Contractor's expense shall be considered incidental to the construction of the sewers and no additional payment will be allowed thereof.
- C. Provide barricades, plates, warning lights and signs as required for public safety for excavations created by point repairs. Sufficient barriers and other traffic control methods shall be in place prior to start of construction, the contractor shall submit to the City Traffic Engineer for review and approval a complete construction signage, traffic maintenance and public safety plan per section C129 of the General Specifications of Department of Public Works around the excavation at all times as specified by DPW Traffic Regulation.
- D. All flow control required for the Work is the responsibility of the Contractor as per SECTION 08 SEWER FLOW CONTROL. Flow shall not be diverted to outside of the sanitary sewerage system.
- E. Do not allow sand, debris or runoff to enter sewer system.

3.02 EXCAVATION

- A. Excavate trenches in accordance with SECTION 11 TRENCHING, BACKFILLING, AND COMPACTION.
- B. Perform work in accordance with OSHA standards. Employ a Trench Safety System as specified for excavations over 5 feet deep.
- C. Install and operate necessary dewatering and surface water control measures in accordance with requirements of SECTION 08 SEWER FLOW CONTROL.

3.03 DIVERSION PUPMING

- A. Install and operate diversion pumping equipment to maintain sewage flow and to prevent backup or overflow. Obtain approval for diversion pumping equipment and procedures from Owner Representative. The contractor is responsible for diversion as specified *in SECTION 08 SEWER FLOW CONTROL*.
- B. In the event of accidental spill or overflow, immediately stop the overflow and take action to clean up and disinfect spillage. Promptly notify Owner's Representative so that required documentation can be made. Promptly notify Owner's on-call Environmental Services Department at (504) 232-2278.

3.04 TYPICAL SEQUENCE OF POINT REPAIR

- A. Survey area to verify the location of point repair.
- B. The Contractor shall locate all existing underground utilities before beginning excavation of sewer mainlines, service connections and service laterals as shown in the Drawings.
- C. Excavate to the minimum length of existing pipe to be repaired where isolated line failure has occurred due to conditions such as but not limited to; settlement, corrosion, crushing, cracked pipe, broken pipe, faulty tap, protruding tap, sheared joint, dropped joint, or other similar conditions. All necessary material will be furnished and installed by the Contractor to ensure proper sewer services after work is completed.
- D. Care shall be exercised during initial excavation of the defective pipe or fittings so as not to disturb the existing pipe and fittings to remain. After the defective pipe has been exposed, the Engineer's resident inspector shall authorize additional pipe to be uncovered as is necessary to allow space for the installation of the new pipe.
- E. Prior to replacing pipe, determine condition of the existing line on both sides of point repair by lamping the line a minimum of 10 feet in each direction. Determine whether additional lengths of line beyond "minimum length" criteria, need replacement. Report need for additional replacement to Owner Representative and obtain approval before proceeding.
- F. The defective pipe shall be cut out in such a way that the ends remaining are straight, smooth and free of chips or cracks. The defective pipe shall be removed from the trench and disposed of by the Contractor.
- G. Establish proper grade for the pipe being replaced using methods acceptable to Owner Representative. The replacement sewer mains and house connections shall be installed at the existing elevations and locations indicated unless changed by the Engineer.

- H. The Contractor shall schedule the work so that the sewer mains and house connections between two manholes are completed before moving to another location.
- I. No main or lines shall be left open overnight; a temporary tie-in shall be made between the end of the new main and the existing, and plugs at manholes shall be removed so as to allow flow to continue until work is resumed.
- J. Lay no pipe except in the presence of an inspector representing the Engineer.
- K. Before placing sewer pipe in position in the trench, carefully prepare the bottom and side of the trench, and install any necessary bracing and sheeting as shown on the Sewerage and Water Board of New Orleans Standard Drawings and SECTION 11 TRENCHING, BACKFILLING, AND COMPACTION.
- L. Bedding and foundations shall conform to the Drawings. Maximum trench width and standard sheeting and bracing shall comply with SEWERAGE AND WATER BOARD OF NEW ORLEANS STANDARD DRAWING NUMBER 4697-E5A. Foundation lumber shall only be placed in locations where existing lumber is removed by the Contractor during excavation. If no foundation lumber is removed, the Contractor shall not place any new lumber.
- M. Do not allow water to run or stand in the trench while pipe laying is in progress or before the trench has been backfilled. Do not at any time open up more trench than available pumping facilities are able to dewater.
- N. Carefully inspect each piece or pipe and special fitting before it is placed, and lay no defective pipe in the trench The laying of new pipe in finished trenches shall begin at the lowest point, with the spigot ends pointing in the direction of flow. Extreme care shall be exercised to keep pipe in exact alignment and elevation. The interior of the pipe and the jointing seal shall be free from sand, dirt, and trash before installing in the line. Extreme care must be taken to keep the bells of the pipe free from dirt and rocks so joints may be properly assembled without over stressing the bells. The jointing of the pipe shall be done in strict accordance with the pipe manufacturer's instructions and shall be done entirely in the trench.
- O. Embedment of pipe shall conform to the details in the Standard Drawings and Section 11 Trenching, Backfilling, and Compaction. Bell holes shall be excavated so that after installation only the pipe barrel shall bear upon the trench bottom. Proper selection and placement of bedding and backfill materials are necessary to minimize deflection of the pipe diameter. No blocking under the pipe will be permitted. Pipe laying shall not precede backfilling by more than 100 feet without approval by the Engineer.
- P. Pipe laying shall proceed upgrade, starting at the lower end of the grade and with the bells upgrade. When pipe laying is not in progress, keep the ends of the pipe tightly closed with a temporary plug approved by the Engineer.
- Q. Bell holes shall be large enough to allow ample room for pipe joints to be properly made. Cut out bell holes not more than 2 joints ahead of pipe laying. Carefully grade the bottom of the trench between bell holes so that each pipe barrel will rest on a solid foundation for its entire length. Lay each pipe joint to form a close concentric joint with adjoining pipe and so as to avoid sudden offsets or inequalities in the flow line.
- R. Wherever replacement pipe materials are joined, cut the replacement pipe to a length ½" less than the overall length of the section being replaced. Then place the pipe in the trench, thoroughly clean the ends of existing and replacement pipe, and install repair couplings as specified below. After installation, check the work to ensure that the replacement pipe is vertically and horizontally aligned with the existing pipe and that the elastomeric couplings and stainless steel shear ring are tight and evenly fitted.
- S. Each time the work on the sewer is halted for more than one (1) hour, the ends of the pipe shall be sealed to prevent foreign material from entering the pipe. As the work progresses, thoroughly clean the interior of the pipe in place. After each line of pipe has been laid, carefully inspect and remove all earth, trash, rags, and other foreign matter from the interior.
- T. After the joints have been completed, they shall be inspected before they are covered. The pipe shall meet the test requirements for water tightness; immediately repair any leak or defect discovered at any time after the completion of the work. Take up any pipe that has been disturbed after joints were formed, clean and remake the joints, and relay the pipe; this shall be done at the Contractor's expense. Carefully protect all pipe in place from damage until backfill operations have been completed.
- U. Service laterals are to be replaced to the property line any time a wye or tee connection is replaced, or as directed by the Engineer. Do not begin the backfilling of trenches until the pipe in place has been inspected and approved by the Engineer.

- V. After completion of point repair, but prior to backfill, SWBNO retains the right to perform a smoke test. The Contractor shall repair and retest sections that fail. The owner shall bear no costs to for repairs made for failed test
- W. Backfill the excavation as specified in SECTION 11 TRENCHING, BACKFILLING, AND COMPACTION.
- X. Point repairs that have offset joints, non-uniform grade or alignment, or other unsatisfactory conditions, shall be rejected. The Contractor shall replace pipe and bedding as required when work is rejected at their own expense.

3.05 DELIVERY, STORAGE AND HANDLING

- A. Care shall be taken in shipping, handling and laying to avoid damaging the pipe and fittings. Extra care will be necessary during cold weather construction. Any pipe damaged in shipment shall be replaced as directed by the Engineer.
- B. Any pipe or fitting showing a crack or which has received a blow that may have caused an incipient fracture, even though no such fracture can be seen, shall be marked as rejected and removed at once from the site.
- C. While stored, pipe shall be adequately supported from below at not more than 3-ft intervals to prevent deformation. Pipe shall not be stacked higher than 6-ft. Pipe and fittings shall be stored in a manner which will keep them at ambient outdoor temperatures. Temporary shading as required for stored PVC pipe shall be provided by the Contractor at no expense to the Board. Simple covering of the pipe and fittings which allows temperature buildup when exposed to direct sunlight will not be permitted.

3.06 LAYING POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

- A. Polyvinyl chloride (PVC) gravity sewer pipe shall be laid in accordance with the instructions of the manufacturer and as specified herein. No single piece of pipe shall be laid unless it is straight. The centerline of the pipe shall not deviate from a straight line drawn between the centers of the openings at the ends of the pipe by more than 1/16-in per foot of length. If a piece of pipe fails to meet this requirement check for straightness, it shall be rejected and removed from the site.
- B. The Contractor shall use care in handling and installing pipe and fittings. Storage of pipe on the job site shall be done in accordance with the pipe manufacturer's recommendation and with approval of the Engineer. Under no circumstances shall pipe or fittings be dropped either into the trench or during unloading. The interior of the pipe shall be kept clean of oil, dirt and foreign matter, and the machined ends and couplings shall be wiped clean immediately prior to joining.
- C. The Contractor shall use a PVC pipe cutter where necessary to cut and machine all PVC pipe in the field. A "full insertion mark" shall be provided on each field cut pipe end. Field-cut pipe shall be beveled with a beveling tool made especially for plastic pipe.
- D. Each length of pipe and each fitting shall be marked with the nominal size, the SDR designation, the name of the manufacturer or his trademark, and the date of manufacture.
- E. Rubber gaskets, if shipped separately from the pipe, shall be marked with manufacturer's identification sizes and proper insertion direction.
- F. When dissimilar pipe materials are joined, use reinforced compression couplings with a full-length stainless steel shear ring. Couplings shall be Mission Adjustable Repair Couplings or approved equal. The couplings shall be appropriately sized. The rubber portion of the couplings shall meet the requirements of ASTM C425 Standard Specification for Compression Joints Vitrified Clay Pipe Fittings and ASTM C1173 Standard Specification for Flexible Transition Couplings For Underground Piping Systems. The bands for attaching the couplings to pipes shall be 316 series stainless steel and conform to ASTM A240 Standard Specifications for Chromium and Chromium-Nickel Stainless Steal Plate, Sheet and Strip for Pressure Vessels and for General Applications. The shear ring shall be 300 series stainless steel and conform to ASTM A240 Standard Specifications for Chromium and Chromium-Nickel Stainless Steal Plate, Sheet and Strip for Pressure Vessels and for General Applications.
- G. If any defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in a satisfactory manner at no additional cost to the Board.

3.07 CLEANING

Before being laid in place, each section of pipe and fitting shall be thoroughly cleaned. If the entire lengths of pipe between one or more manholes are replaced, then at the conclusion of the work, the Contractor shall thoroughly clean the entire pipe by flushing with water or other means to remove all dirt, stones, pieces of wood, or other material which may

have entered during the construction period. Debris cleaned from the lines shall be removed from the lowest outlet. If, after this outlet cleaning, obstructions remain, they shall be removed.

3.08 SEWER HOUSE CONNECTIONS

- A. Sewer house service connections shall be six inch pipe extended from the main to the property line. The use of saddles to connect the house service to the main will not be permitted unless the pipe has been previously lined; all connections will be made using full bodied wye or tee fittings
- B. The Contractor shall not damage the existing lined pipe when removing the original pipe from around the liner.
- C. The Engineer has identified potential locations for repairs. The Contractor is responsible for verifying locations in reference to the main line (distance from the upstream and downstream manholes). Service line point repairs are performed only on those portions of service lines which are located in an easement or right-of-way; no repairs to service lines shall be performed on private property.
- D. The Contractor shall ensure that wastewater does not back-up into private property. The Contractor shall establish a plan to prevent sewer back-ups when reconnections are not accomplished in a timely manner.
- E. The Contractor shall complete re-connection of all service lines within 24 hours.
- F. The Contractor shall inspect the service line at the repair location to determine that all pipes requiring replacement within 10 feet of the repair has been replaced before reconnecting the service line and backfill operations begin.
- G. Service connections shall be installed at a minimum slope of 2 percent or as approved by the Engineer. The limits of the service connections shall be determined or verified by the Engineer in the field.

3.09 MANHOLE CONNECTIONS

- A. Where it is necessary to connect the sewers to existing manholes, the existing short bell pieces remaining in the wall of the manhole shall be broken out and new short bell pieces inserted to the full thickness of the walls and permanently grouted, as shown on the Drawings (see SWB Dwg. No. 6312-E-5). The annular space between the pipe and the wall of the structure shall be grouted with a type three, high early strength cement, or quick setting EMBECO or approved equal.
- B. If a PVC pipe is to be connected to a manhole or other concrete brick structure, 3M CR202 elastomeric grout and jute or approved equal shall be used in place of the cement grout. As an alternative, the Contractor may use a sand-impregnated PVC stub, grouted with cement grout as specified above, for the manhole connection. There shall be no direct pay for connecting the new sewer main to an existing manhole.
- C. Place a manhole adapter supplied by Fernco or approved equal on the pipe before mortaring around the pipe. Shape or reshape the bottom of the manholes as necessary to fit the invert of the pipe in the manner specified elsewhere.

END OF SECTION 06

SECTION 7

REPLACEMENT OF SEWER MAINS FROM MANHOLE TO MANHOLE

PART 1.0 GENERAL

The Contractor shall furnish all labor, materials, equipment and supervision for the replacement, relocation and/or installation of sewer mains between manholes including tie-ins into the existing sewer system. The work shall also consist of installing or replacing service connections, and performing all operations required for improving the sewer system. The Contractor shall provide the necessary dewatering and bypassing required during execution of this work.

The Contractor shall furnish all labor, materials, equipment and supervision required for the replacement of existing sewer mains between manholes including tie-in into the existing system.

All work to be done on Sewerage Systems will be as shown on the plans and as directed by the Director. All workmanship, materials and tests shall conform to Section D, General Specifications of the Sewerage and Water Board, S&WB Standard Drawings, and Sewerage and Water Board Standard Drawing No. 7260-SWD, except as noted hereinafter. The Contractor shall notify the Chief of Engineering of the Sewerage and Water Board in writing not less than three or more than ten working days in advance of starting the job, in order to allow for scheduling the inspection of the work. Failure to do so prior to starting work will result in the Contractor being required to expose the bedding on all pipe previously installed without Sewerage and Water Board inspection.

All workmanship and materials required to perform this work, shall conform to the current General Specifications of the Sewerage and Water Board and the Department of Public Works except as noted hereinafter.

The Contractor performing work covered in this section shall be required to coordinate his operations with the Sewerage and Water Board and other utilities prior to making any excavation. The Contractor shall exercise caution in making excavations to avoid damage to these services and other utilities.

The Contractor will be furnished with a list of the locations of water and sewer house connections from the Sewerage and Water Board. It will be the Contractor's responsibility to verify the location of these so as to avoid damage. Furnishing this information should not be construed as a waiver of the Contractor's liability, but rather an attempt on the part of the Board to minimize the Contractor's hazard. The existing house connections submitted in the lists are from S&WB records and could vary from the actual location. Any damage to the existing water, sewer and drain connections resulting from negligence will be repaired by the S&WB at the expense of the Contractor. The Contractor is also responsible for damage to other utilities and the property of others.

Existing sewer service connections shall be tied into the new mains and replaced with new connections where required.

PART 2.0 MATERIALS

2.01 MATERIALS AND METHODS

Pipe material for sewer mains shall be solid wall polyvinyl chloride (PVC) pipe. The solid wall PVC pipe 6" through 15" shall be manufactured in accordance with ASTM D-3034 specifications for a special gravity sewer pipe dimensions ratio (SDR) of 26. The fittings (tees, wyes, etc.) and bell stock for solid wall PVC pipe shall have a thickness not less than that of the SDR-35 solid wall PVC pipe of the same inside diameter. PVC Sewer Mains sizes 18" through 27" shall be solid wall, PVC pipe conforming to ASTM F-679, Class T-1. PVC pipe shall be type PSM Vinyl Chloride (PVC) standard lengths with integral cast bells and elastomeric gaskets as recommended by the manufacturer and ASTM D-3212. The Sewerage & Water Board reserves the right to approve the type of material.

The maximum allowed deflection for installed PVC sewer pipe is 7.5% reduction in its actual vertical inside diameter not the minimum allowed by the ASTM Specification. Pipe exceeding this allowed deflection at any time prior to acceptance, shall be removed and replaced with new pipe and reinstalled as per the above specifications at the contractor's expense. The S&WB reserves the right to mandrel any and/or the entire PVC pipe installed. The contractor will install the pull lines and pass the mandrel through the mains selected by the S&WB. The S&WB will provide the mandrel for all tests. The mandreling tests will occur after compacted backfill of the trenches. The Contractor shall bear the cost of mandreling retesting if required and will be assessed \$100.00 for each occurrence in each section between manholes. In addition, cleaning and TV/video of the new PVC sewer lines (either in service or not) will occur during final inspection after all paving is completed to verify the absence of construction debris. The Contractor shall bear all costs of cleaning and TV/video test or retesting. It is required that a S&WB representative and the Contractor witness the actual mandreling test(s) and witness the real-time cleaning and TV/video test(s). The S&WB does not desire a copy of the videotape. (No Direct Payment)

Bedding and foundation for mains shall conform to latest S&WB Drawing No. 4697-E5A except as noted below. Backfill and drainage fabric for mains shall be as noted below. Standard sheeting and bracing for the sewer pipe shall comply with latest DWG. 4697-E5A and with the S&WB General Specifications. The same type and size pipe material must be installed between manholes.

PART 3.0 EXECUTION

3.01 INSTALLATION

Installation of the solid wall PVC pipe shall conform to Section D Sewerage and Water Board General Specifications, "The Construction of Sewer" and the Plastic Pipe Association Specification UNI-B 78, "Recommended Practice for the Installation of Polyvinyl Chloride (PVC) Sewer Pipe." The trench bottom shall be relatively smooth and free from rocks, roots, etc. After the sheeting and/or foundation lumber is placed, the pipe shall be laid on a smooth bed of approved bedding material mentioned below, compacted to a density of not less than 95% relative density, six inches deep for the full width of the trench.

The bedding material shall be extended to six inches above the top of the pipe, well compacted (hand or mechanical) in six inch layers to not less than 95% relative density, as shown on the Standard Plans of the

Department of Public Works. The bedding material shall be placed and consolidated under the pipe haunches to provide maximum side support to the pipe while avoiding displacement and misalignment of the pipe.

Bedding material shall Class 1A Angular Material (1/4" to 1-1/2") conforming to ASTM D2321, i.e., crushed concrete or crushed stone. The Sewerage and Water Board reserves the right to approve or disapprove the type of bedding material.

Backfill material shall be pumped sand and shall be placed at or near optimum moisture content and compacted. Backfill material shall be placed in layers not to exceed 12 inches. Each layer shall be compacted to a minimum of 95% of maximum density using approved mechanical compaction equipment. The above backfill material and the compaction procedures shall be applied also for any service connections, and point repairs.

Drainage fabric shall be installed according to the following specifications and according to the plan details. Drainage fabric shall be nonwoven pervious sheets of plastic yarn, constructed so that yarns will retain their relative position with respect to each other. Edges of fabric shall be finished to prevent the outer yarn from pulling away from the fabric.

The fabric shall be installed as follows:

After the trench is excavated, the foundation lumber shall be placed in the bottom of the trench as required. The filter fabric shall be cut to the needed width including allowances for "loose" placement in the trench and a double-top overlap on top of the bedding material after placement. The fabric shall be laid over the foundation lumber in the trench along its alignment with an 18" minimum overlap at the ends of subsequent lengths. Care should be taken to place the fabric tightly against the soil so that no voids occur behind the fabric. Also, wrinkles or folds should be avoided. The sides of the fabric that will be used as a double-top overlap should temporarily be pinned to the sides of the trench.

After installing the fabric, an initial 6" layer of bedding material shall be placed and compacted to the proper grade before placing the sewer pipe. The remainder of the bedding material shall then be placed around and above the pipe and compacted. Compaction is required to seat the fabric and bedding material against the trench wall and to reduce settlement.

After compaction, the two edges of the filter fabric shall be unfastened and overlapped on top of the bedding material. The backfill material shall then be placed and compacted as required.

Drainage fabric shall conform to section ASTM D1910. The Contractor shall provide the Engineer with a sample of the fabric to be used on the project along with a copy of the manufacturer's minimum requirement specifications prior to the start of construction. Drainage fabric shall be installed around the bedding and under the sand backfill according to the Standard plans.

3.02 INSTALLATION/REPLACEMENT OF NEW SEWER MAINS

The contractor shall furnish all materials, equipment and labor to remove the existing deteriorated main, (if any) install mains and fittings (wyes, tees, etc.), including appurtenances such as tie-ins, to existing system, lumber

foundation, bedding, backfilling, necessary dewatering and bypassing up to a 3-inch pump, during the execution of this work.

Where the sewer main is relocated, the existing abandoned main must be filled and plugged where shown on the plans. The abandoned sewer line shall be filled with sand, by flooding the pipe to avoid caving in of the sewer line.

All workmanship, materials and tests shall conform to Section D General Specifications of the S&WB, except as noted otherwise. The Contractor may use more than one crew in performing work in various sections of a system at a given time, provided he has the approval of the Engineer.

The new sewer mains and service connections shall be installed at the elevations and locations indicated on the plans, unless changed by the Engineer. The Contractor shall schedule his work so that the sewer mains and service connections between two manholes are completed before moving to another location (this will minimize the spillage of raw sewage into an open trench). The Contractor shall isolate the block where the work is in progress by plugging the upstream and downstream manholes. Should the sewage build up to within three feet of the upstream manhole, or if directed by the Engineer, the Contractor shall pump the liquid to the downstream manhole through bypass piping. No mains or lines shall be left open overnight; a temporary tie-in shall be made between the end of the new main and the existing, and plugs at manholes shall be removed so as to allow flow to continue until work is resumed.

Where it is necessary to connect the sewers to existing manholes, the existing short bell pieces remaining in the wall of the manhole shall be broken out. A new short bell piece shall be inserted to the full thickness of the walls and permanently grouted in place (see latest S&WB Dwg. 6178-B-6). The new short bell piece shall be a sand impregnated PVC stub, grouted with a type three, high early strength cement, or quick setting EMBECO or similar material.

If a PVC pipe is to be connected to a manhole or other concrete or brick structure, the Contractor shall use a sand impregnated PVC stub, grouted with cement grout as specified above, for the manhole connection.

The Contractor is required to have all materials and equipment on hand prior to the start of excavation so that there will be a minimum of inconvenience to the residents. All trenches must be backfilled at the end of the day.

3.03 SEWER SERVICE CONNECTIONS

New or replacement sewer service connections, where required, shall be six (6") inch pipe extended from the main to the property line or to a point directed by the Director. Bedding and foundations required under sewer mains are not required under six (6") inch sewer house connections, but 6" of compacted pumped sand is required as bedding under 6" sewer service connections. Backfill is required the same as described herein for sewer mains.

The use of saddles to connect the house service to the main will not be permitted; all such connections shall be made using wye or tee fittings except on lined sewer mains.

All existing sewer service connections connected to sewer lines that are being replaced shall be removed and replaced from the new sewer line to property line and tied to the existing service at that point.

The need for replacing existing sewer service connections that are connected to existing sewer lines that are not being replaced shall be as directed by the Engineer after field inspection or as indicated on the Drawings. These services will be removed and replaced from the existing sewer line to property line and tied to the existing service at that point.

New sewer service connections shall be installed from an existing, new, or removed and replaced" sewer main to property line at locations where no service presently exists as directed by the Engineer or as indicated on the Drawings.

All pipe and fittings shall be of the same material as the main, unless approved by the S&WB. The connection of any two dissimilar materials shall be accomplished by the installation of a "No-Hub" coupling, consisting of a neoprene sleeve and bushing adaptor and two stainless steel bands with stainless steel screws. The coupling shall be manufactured in strict accordance with Cast Iron Soil Pipe Institute Specifications C-301, latest revision, as manufactured by Tyler Pipe Company, Mission Clay Products Corps., Fernco, or approved equal.

Where existing or proposed subsurface facilities conflict with existing sewer house connections, these same connections shall be adjusted to provide for adequate clearance in accordance with the S&WB Standard Specifications. No siphons will be permitted. Adjustment of sewer house connections shall comply with the above specifications for replacement of sewer house connections.

3.04 SANITARY SEWER MANHOLE

New sanitary sewer manholes required when installing new sewer mains or relocating existing sewer mains shall be constructed in accordance with the applicable sections of the S&WB General Specifications and latest S&WB Standard Drawings No. 6178-B-6 and No. 6178-B-6A

To abandon existing sewer manholes, the Contractor shall remove the casting and cover, remove the manhole wall three (3) foot depth, plug all pipes, and fill the remainder of the manhole with pumped sand, compacted to 95% maximum density. There will be no direct pay for abandoning sewer manholes. Removed casting and cover shall be returned to S&WB Central Yard.

3.05 INSPECTION

At the completion of the installation of the sewer mains between manholes, and prior to final acceptance, the Engineer may inspect the mains with a remote control television unit. The Contractor shall assist by notifying the residents to refrain from use of these services during the inspection. The Contractor will be required to repair at his expense and in an approved manner, all defects in his workmanship disclosed by these tests and inspections before final acceptance.

3.06 MEASUREMENT

Sewer mains will be measured in place and the length determined by measuring from center to center of manholes or other subsurface structures of which they form a part.

Depth of sewer mains for payment purposes shall be determined by measurement from the invert to the top of casting at original existing grades of connecting manholes. Depth of manholes shall be measured from invert to the top of casting.

3.07 PAYMENT

Payment for relocation, replacement and restoration of existing sewer mains or installation of new sewer mains shall be made at the contract unit price per linear foot of the size and depth, which includes excavation, bypass pumping up to a 3-inch pump as necessary, complete shoring, foundation lumber, bedding, installation of new main, including fittings, backfill, drainage fabric and tie-ins. If the existing sewer main is to be removed or abandoned in place, the cost shall include removal or abandonment of the existing sewer main. The Contractor will be paid for setting up and operating bypass pumping when using a pump greater than or equal to 4". The use of a pump greater than or equal to 4" will be allowed only with the authorization of the Engineer.

Payment for "Remove and Replace Sewer Manhole" shall be made at the contract unit price per foot height, including excavation, granular bedding, foundation slab and backfilling. If the existing manhole is to be replaced, the cost shall include removal of the existing sewer manhole.

Payment for "Adjust Manholes by Raising/Lowering" shall be made at the contract unit price per each, including excavation and removal of the existing manhole casting and cover, adjustment by removal of bricks and or installing brick and mortar and backfilling.

Payment for "Furnish and Install 6-inch Sewer House Connection" shall be made at the contract unit price per linear foot, including excavation, installation of a wye or tee in the main, PVC pipes, fittings, tie-in at property line, and backfilling.

Payment for "Make 6-inch Service Connection Direct to Manhole" shall be made at the contract unit price per linear foot, including excavation, installation of PVC pipe, fittings, tie-into manhole with a sand impregnated joint as shown on S&WB Drawing No. 6178-B-6, tie-in at property line, and backfilling.

Payment for "Furnish and Install Vertical Stack Fittings and Tie-In" shall be made at the contract unit price per each, including installation of new PVC tee into existing or new mains with a six-inch (6") stack, installation of wye or double wye as shown on S&WB Drawing No 6312-E5-B. Payment for house connection laid out of the wye fitting shall be at the unit price bid per foot.

Payment for "Set up Sewer System Equal to or Greater than 4-inch" shall be made at the contract unit price per each, including a high capacity trash pump, suction hoses, discharge piping, traffic control, operation and maintaining the bypass system and any necessary ramping to allow for the flow of vehicular traffic, and disassembling the system.

New or replaced sewer house connections shall be installed so as to avoid conflict with new or proposed subsurface facilities.

3.08 CLEAN UP AND RESTORATION OF WORK AREAS

Upon completion of work and before acceptance and final payment, Contractor shall cleanup work areas and adjacent property, and removes all surplus and discarded materials, rubbish and temporary structures. He shall leave the lawn areas, adjacent properties, streets and medians in clean condition throughout the entire length of job. Grass areas must be restored to their original condition and topped with not less than two inches of river sand. Shrubbery, grass, signs, etc. that was temporarily removed during construction shall be replaced in their original condition. Drains and catch basins along the route that are clogged with mud as a result of this work must be cleaned to the satisfaction of the Engineer. No extra payment will be made for this site restoration.

***END OF SECTION 7 **

SECTION 8

SEWER FLOW CONTROL

PART 1.0 GENERAL

1.01 BY-PASS PUMPING

Use of by-pass pumping to prevent surcharging and maintain un-interrupted flow through sewage collection system while allowing Contractor to provide reliable sewer service to the sanitary sewer users at all times and to isolate sewer line manholes and/or sewer line segments designated for cleaning, rehabilitation, and television inspection operations.

Includes installation and operation of bulkheads, plugs, hoses, piping and pumps to maintain sewage flow and prevent backup and overflow.

The Contractor is to follow *Section D of the General Specifications* for information and procedures pertaining to the construction of sewers, except where parts of Section D have been changed by these special specifications.

1.02 MEASUREMENT & PAYMENT

The Contractor will be paid as an each item for setting up and operating bypass pumping when using a pump less than or equal to 4 inches.

The payment for the bypass pump greater than 4 inches will be paid as an each item which will include the setup, maintain and operation of the bypass pump. The use of a pump greater than 4 inches will be allowed only with the authorization of the Engineer.

Any and all cost of bypass pumping, both set up and operational maintenance, including any necessary ramps over the bypass piping and traffic control, shall be included in the price bid for the repair when using a pump less than 4". Any delay that the contractor experiences due to surcharging of the sewer system shall be documented in writing and delivered to the Engineer when encountered. The delay time will be taken into consideration when calculating start and completion times for the various phases of work for purposes of liquidated damages to be paid by the Contractor for the failure of the Contractor to start or complete on time.

PART 2.0 MATERIALS

When by-pass pumping or well-pointing in residential areas, utilize noise reducing pumps and said pumps must be approved by the Engineer.

Pumps and/or generators must be provided with noise attenuators when in a residential area and pumping is required after hours.

PART 3.0 EXECUTION

3.01 PROCEDURES AND METHODS

Prior to beginning sewer cleaning, rehabilitation and television inspection operations demonstrate pumping system is in good working order.

The Contractor shall isolate the segment(s) of sewer where the work is to occur by plugging the upstream and downstream manholes. Should the sewage build up to the top of the largest size sewer main in the upstream manhole, or if directed by the Engineer, the Contractor shall pump the sewage through bypass piping to a sewer manhole downstream of the work. The scope of this work includes the by-passing as many as two city blocks of sewer.

The pumping of sewage into drain facilities is strictly prohibited unless authorized by the Engineer. The Sewerage and Water Board will be reimbursed by the Contractor in accordance with section A1, paragraph 27 of the Sewerage & Water Board General Specifications, for all costs paid by the Sewerage and Water Board for the necessary administrative work, remedial work and for any fines related to an unauthorized discharge.

No sewer main shall be left open overnight; instead, a temporary tie-in shall be made between the ends of the new and existing main, and plugs at manholes shall be removed so as to allow sewage flow until work is resumed.

SECTION 9 CURED-IN-PLACE LINER (CIPP)

PART 1.0 GENERAL

1.01 REQUIREMENTS FOR CIPP LINING

- A. The Contractor shall furnish all labor, materials, equipment and supervision for the CIPP lining of all existing sewer mains between manholes. The work shall also consist of internal reinstatement of sewer service laterals complete with cure-in-place lining. The Contractor shall provide the necessary dewatering and bypassing required during execution of this work at no direct pay.
- B. The Contractor shall furnish an extended warranty for liner materials from the liner manufacturer for a total of 5 years from the date final Acceptance.
- C. The Sewerage and Water Board of New Orleans will determine the ability of the lowest bidder to install CIPP Liner as specified herein. Along with other factors to be considered by the Boards staff will be the contractor's experience in sewer line repairs by CIPP liner installation and the contractor's history of linear feet of furnished product including the sizes applicable for this project. The contractor or subcontractor should also be licensed by the system manufacturer. Should the lowest bidder be found "non-responsive" then an informal hearing will be held to provide lowest bidder the opportunity to refute the reasons for the disqualification
- D. All work to be done on Sewerage Systems will be as shown on the plans and as directed by the Engineer. All workmanship, materials and tests shall conform to Section D of the General Specifications of the Sewerage and Water Board, S&WB Standard Drawings, and Sewerage and Water Board *Standard Drawing No. 7260-SWD*, except as noted hereinafter. The Contractor shall notify the Chief of Engineering of the Sewerage and Water Board in writing not less than three or more than ten working days in advance of starting the job, in order to allow for scheduling the inspection of the work. Failure to do so prior to starting work will result in the Contractor not being paid for installment of CIPP without Sewerage and Water Board inspection.

All workmanship and materials required to perform this work, shall conform to the current General Specifications of the Sewerage and Water Board and the Department of Public Works except as noted hereinafter.

- E. The Contractor performing work covered in this section shall be required to coordinate his operations with the Sewerage and Water Board and other utilities prior to making any excavation. The Contractor shall exercise caution in making excavations to avoid damage to these services and other utilities.
- F. The Contractor will be furnished with a list of the locations of water and sewer house connections from the Sewerage and Water Board. It will be the Contractor's responsibility to verify the location of these so as to avoid damage. Furnishing this information should not be construed as a waiver of the Contractor's liability, but rather an attempt on the part of the Board to minimize the Contractor's hazard. The existing house connections submitted in the lists are from S&WB

records and could vary from the actual location. Any damage to the existing water, sewer and drain connections resulting from negligence will be repaired by the S&WB at the expense of the Contractor. The Contractor is also responsible for damage to other utilities and the property of others.

G. Existing sewer service connection shall be internal reinstatements with the cured in place lining.

1.02 MEASUREMENT AND PAYMENT

- A. Sanitary Sewer Rehabilitation by Full Segment Cured-in-Place Lining Measurement: Measurement shall be on a per linear foot basis between centerlines of consecutive manholes for rehabilitation of nominal diameter line segments as shown on the bid schedule lined by cured-in-place lining products.
- B. Payment: Payment shall be made at the unit price bid per linear foot in accordance with these specifications; and shall include pre- and post-installation television inspection, cleaning, setup activities (e.g. safety procedures, sewage flow control, traffic control, preparation and insertion of liner, etc.), curing of liner, cutting liner ends and sealing liner in manholes, testing, initial reinstatement to 75% of full opening of all active service connections, clean up, and any other related items necessary to complete this item of work.
- C. Sanitary Sewer Service Internal Reinstatement Measurement:
 - Measurement for the sanitary sewer service internal reinstatements by robotic devices shall be made on a per each reinstated service basis.
- D. Payment: Payment for the sanitary sewer service internal reinstatements shall be made at the unit price bid per each in accordance with these specifications; and shall include post-lining television inspection, internal robotic equipment, identification of active service connection locations, final "buffing out" to full opening diameter, sewage flow control (except diversion pumping), traffic control, and any other related items necessary to complete this item of work.

PART 2.0 MATERIAL

2.01 LINER

All CIPP lining products shall comply with the latest versions of ASTM F1216 - Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube, or ASTM F1743 - Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP). The Contractor shall furnish a general purpose unsaturated, polyester or thermosetting vinyl ester resin and catalyst system that provides cured physical strengths specified herein.

The flexible tube shall consist of one or more layers of needled felt or equivalent woven or non-woven material manufactured under quality controlled conditions set by the manufacturer, and be capable of carry resin and withstanding installation pressures and curing temperatures. The tube shall be

compatible with the resin system used, and shall contain no intermediate layers that delaminate after resin curing. It shall not be possible to separate any layers with a probe or knife blade such that the layers separate cleanly or the probe or knife blade moves freely between the layers.

The flexible tube material shall be able to stretch to fit irregular pipe sections and negotiate bends. The tube shall be fabricated to a size that when installed will neatly fit the internal circumference and length of the existing sanitary sewer main lines and service lateral lines when installed. Allowance shall be made for circumferential stretching during insertion so that the final cured product is snug against the wall of the host pipe and free of fins and buckles.

The resin used shall be a thermoset resin system that is compatible with the CIPP installation. The resin shall be able to cure in the presence of water and the initiation temperature for cure shall not be more than 180° F.

The liner thickness shall be sized for a minimum hydrostatic and earth load of 8 feet. The earth load and hydrostatic load shall be increased to the manhole depth for bury depths in excess of 8 feet unless otherwise noted.

The wall color of the interior pipe surface of the CIPP after installation shall not be of a dark or non-reflective nature that could inhibit proper CCTV inspection.

The liner shall be structurally designed for a fully deteriorated host pipe/direct buries condition, prism loading, and AASHTO Standard Specification for Highway Bridges HS-20-44 live loading due to traffic. The liner shall be designed for the following conditions:

DESIGN PARAMETER	VALUE
Minimum Service Life	50 years
Soil Density	120 pounds per cubic foot (lb/cf)
Soil Modulus	1000 pounds per square inch (psi)
Minimum Safety Factor	2.0
Ovality Factor	2%
Maximum Deflection	5% in vertical axis
Long Term Modulus Reduction Factor	50%

The CIPP liners shall conform to the minimum structural standards as listed below in accordance with the latest versions of ASTM D790 - Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials and ASTM F1216 - Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube:

FINAL CIPP	MINIMUM REQUIRED

Flexural Stress	4,500 psi
Short Term Flexural Modules	250,000 psi
Long Term Flexural Modules	125,000 psi

The liner shall be fabricated from materials which when complete are chemically resistant to and will withstand internal exposure to domestic sewage having a pH range of 5 to 11 and temperatures up to 125° F. CIPP liners shall meet the minimum chemical resistance requirements in accordance with the latest version of ASTM F1216 - Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.

The liner shall be furnished to the following minimum thickness, or the thickness based upon design criteria as specified herein, whichever is greater:

Pipe Diameter (inch)	Depth of Sewer Invert (feet)	CIP Nominal Thickness (millimeter) (inches)
6	0 to 20	4.50.177
8	0 to 20	6.0 0.236
10	0 to 15	6.0 0.236
10	15.1 to 20	7.5 0.295
12	0 to 10	6.0 0.236
12	10.1 to 20	7.5 0.295
15	0 to 10	7.5 0.295
15	10.1 to 15	9.0

		0.354
15	15.1 to 20	10.5
		0.413
18	0 to 10	9.0
		0.354
18	10.1 to 15	10.5
		0.413
18	15.1 to 20	12.0
		0.472
21	0 to 10	10.0
		0.374
21	10.1 to 20	15.0
		0.555
24	0 to 10	12.0
		0.472
24	10 to 22	15.0
		0.590
27	0 to 10	12.0
		0.465
27	10.1 to 20	18.0
		0.705
30	0 to 10	15.0
		0.590
30	10 to 22	21.0
		0.817
36	0 to 20	24.0
		0.921

2.02 EXPANDING HYDROPHILIC RUBBER JOINT SEAL

The rubber joint seal shall be an extended hydrophilic rubber compounded from chloroprene (Neoprene) rubber and hydrophilic resin, which expands on contact with water.

The rubber joint seal shall be bonded with adhesive on one face to hold it in place during assembly.

On contact with water, the rubber shall swell a minimum of 8 times its original volume, if necessary, and mold itself to completely fill any gaps and exert pressure evenly to ensure the seal. High compression or bolt up forces shall not be necessary to affect a complete and watertight seal.

2.03 CHEMICAL GROUT

The chemical grout shall be a hydrophilic liquid that is water reactive and will change from a free-flowing liquid to a water impermeable elastomeric solid upon injection to stop excessive infiltration at the point where the CIPP liner enters the manholes. A reaction (curing) which produces a chemically stable and non-biodegradable, tough, flexible gel. The chemical grout shall be a urethane liquid in uncured form suitable for pumping with a moderate viscosity and variable gelling and curing times. The polyurethane chemical grout shall be Scotch-Seal 5610 by 3M, Avanti Av-254, or approved equal.

Acceptable urethane base gel chemical sealing materials shall meet or exceed the following requirements:

- A. The liquid shall have a solids content of 80% and a specific gravity of 1.04 to 1.11
- B. The liquid shall have a viscosity of 300 to 1,000 centipoise at 70 F.
- C. The water used to react to the pre-polymer should have a pH of 5 to 9.
- D. Gel times shall be in accordance with the manufacturer's recommendations.
- E. The grout shall have the ability to increase viscosity, density, gel strength and resistance to shrinkage by the use of additives in the reaction water.
- F. A reinforcing agent shall be added to the reaction water at the manufacturer's suggested rate. This agent is intended to increase the polyurethane gel's resistance to wet/dry cycles, freeze/thaw cycles, and solid movement stresses. The reinforcing agent shall be appropriate for the specific grout product that is to be used.
- E. Additional chemical grout additives such as catalysts or accelerators as needed to make the grout function properly shall be as manufactured by 3M, Avanti, or approved equal and shall be used in a manner approved by the manufacturer.

PART 3.0 EXECUTION

3.01 DELIVERY, STORAGE, AND HANDLING

The Contractor shall comply with the pipe manufacturer's printed recommendations for delivery, storage, and handling of all products. The Contractor shall keep products safe from damage. The

Contractor shall promptly remove damaged products from the job site and replace damaged products with undamaged goods at no additional cost to the Board.

3.02 PRIVATE SERVICE LINE SHUTDOWN

When it is necessary to shut down a private sewer service line while work is in progress and before the service lines are reconnected, the residents are to be notified by the Contractor not more than one week prior to and again not more than 24 hours immediately prior to the shutdown. No sewer or water service is to remain out of service for more than a period of eight (8) hours, and not before 8:00 a.m., or after 6:00 p.m. Sewage from the services or main line shall be discharged or diverted into an adjacent or downstream sewer only.

3.03 PREPARATION

The Contractor shall carry out his operations in accordance with all OSHA and manufacturer's safety requirements. Particular attention is drawn to those safety requirements involving the entering of confined spaces.

The Contractor shall take field measurements to verify the existing pipe diameter, ovality and length prior to manufacturing liners. The manufacturer shall incorporate these measurements into the manufacturing process of the liner. The outside of the flexible tube shall be marked along its full length at regular intervals not to exceed five (5) feet.

It shall be the responsibility of the Contractor to remove all internal debris such as solids and roots and clean the existing sewer line prior to installation of the liner.

Inspection of existing sewer lines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections by CCTV. The interior of the line shall be carefully inspected to determine the location of any conditions, which may prevent proper installation of the CIPP liner into the main lines or service lateral lines, and such conditions shall be noted so they can be corrected. A video log and data log shall be kept of conditions that need to be corrected on the existing sewer line.

The Contractor shall provide for the flow of sewage around the section or sections of pipe designated for lining as specified in **SECTION 08 SEWER FLOW CONTROL**. The Contractor shall be completely responsible for preventing service line back-ups during the CIPP liner installation and curing periods.

The Contractor shall clear the line of obstructions such as solids, protruding gaskets, dropped joints, protruding service connections or collapsed pipe that will prevent the insertion of the liner, as noted during pre-rehabilitation CCTV inspection. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, the Contractor, upon approval from the Engineer, shall make a point repair to uncover and remove or repair the obstruction prior to lining.

Location and distance from the upstream and downstream manholes of all internal and external point repairs shall be determined before rehabilitation commences.

Only those sewer services that are live and active shall be repaired, or reinstated after the sewer main has been lined or replaced.

The Contractor shall note all of the sewer lines segments have not been televised in their entirety due to obstructions blocking further entry, etc... These obstructions shall be cleared to allow CCTV viewing of the entire segment length before lining is commenced. The number of service connections on some sewer segments may exceed the number of buildings actually served. It is the Contractor's responsibility to determine through dye testing, CCTV inspection or other acceptable methods, the services that are live and require reinstatement prior to commencing lining of the sewer main. Services that are confirmed to be inactive shall not be reinstated. Services that are inactive, but reinstated, shall be plugged at no additional expense to the Board.

3.04 INSTALLATION

Installation shall be accomplished by inversion or winched-in-place methods and cured in place by ambient temperature or circulating hot water or steam to produce a hard, jointless, impermeable pipe repair.

Installation procedures shall be in accordance with the latest versions of ASTM F1216 - Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube or ASTM F1743 - Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP), and the manufacturer's recommendations.

The Contractor shall designate a location where the reconstruction tube will be vacuum impregnated prior to installation. The Contractor shall allow the Engineer to inspect the materials and "wet out" procedure. Sufficient excess resin shall be used in accordance with the latest version ASTM F1216. A roller system shall be used to uniformly distribute the resin throughout the tube.

Before installation begins, the tube manufacturer shall provide the minimum pressure required to hold the tube tight against the existing conduit, and the maximum allowable pressure so as not to damage the tube. Once the installation has started the pressure shall be maintained between the minimum and maximum pressures until the installation has been completed.

The curing of the CIPP must take into account the existing pipe material, the resin system, and ground conditions (temperature, moisture level, and thermal conductivity of soil). The post-cure temperature should be held for a period as recommended by the resin manufacturer, during which time the recirculation of the water and cycling of the head source to maintain the temperature continues.

The bond between all CIPP layers shall be strong and uniform. All layers, after cure, shall be completely saturated with resin.

The CIPP shall be cooled to a temperature below 100°F before relieving the hydrostatic head. Care should be taken in release of the static head so that a vacuum will not be developed that could damage the newly installed liner.

Where practicable, liners can be installed in continuous runs through manholes where there are two of more continuous sewer segments requiring lining, especially to connect several short segments with continuous lining.

The temperature of water discharged to the sewer system from processing liners shall not exceed 125° F maximum, or the level allowed by State or local standards if less than 125° F.

The Contractor shall furnish on-site on a continuous basis one (1) additional operational robotic cutter assembly train and key spare components as a "stand-by" unit in the event of primary equipment breakdowns.

3.05 POST INSTALLATION

After installation of the liner in a full segment pipe, a minimum of one (1) inch of the liner material shall be left to protrude from the wall of the entrance and the exit manhole.

The Contractor shall install a joint seal at all manhole inlet and outlet connections to seal the area where the line enters or leaves each manhole. The Contractor shall use grout to dress up around the end of the liner. This space may be sealed with a mechanical seal, chemical seal, or combination of both. The method used shall be as approved by the Engineer.

The upstream and downstream manholes shall be inspected and any holes or voids in the manhole wall immediately surrounding the new liner shall be sealed with a hydrophilic rubber joint seal and chemical grout as specified herein. The Engineer shall approve the seal.

Where liners of any type are installed in two or more continuous manhole segments, the liner invert through the trough of intermediate manholes shall be left intact. Final finishing of the installation in those intermediate manholes shall require removal of the top of the exposed liner and neat trimming of the liner edge where it touches the lip of the manhole bench.

Portions of any piece of liner material removed during installation shall be available for inspection and retention by the Engineer. Any unrestrained samples shall not be used for testing purposes.

The Contractor shall reinstate openings for all drop assemblies after relining the mainline sewer.

Service connections shall be reinstated without excavation, utilizing a remotely controlled cutting device monitored by a CCTV camera. The coupons from this action shall be collected downstream and submitted to the Engineer. The Contractor shall provide certification that he has the required equipment to reinstate the service connections as specified herein.

After the liner has been installed, in the event that the Contractor chooses to temporarily reinstate service lines, all active existing services may be temporarily reinstated by punching through the liner from the interior of the pipeline. Temporary reinstatements shall allow normal flow from the service line into the mainline. Final reinstatement of all active services within a rehabilitated line segment shall be performed internally using a robotic cutter within 48 hours of curing and buffed to a minimum of 95% of the original service opening size. The finished opening shall contain no jagged edges.

3.06 TESTING

During the cool down process, after installation and curing of the liner, the Contractor shall perform tests on the sewer line to determine if it is watertight. No separate payment will be made for testing.

The Contractor shall furnish all necessary equipment to conduct the test.

The sewer shall be tested using either exfiltration test methods in accordance with the latest version of ASTM F1216 – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated tube or air test methods as specified herein.

Air Testing

Each section of new CIPP liner shall be tested between successive manholes by plugging and bracing all openings in the pipe and the upper ends of all service laterals. Prior to insertion in the sewer, each plug shall be checked with a soap solution to detect any air leakage. If any leaks are found, the air pressure shall be released and the leaks eliminated or the plug replaced.

The test of the pipe and service laterals shall be conducted in the presence of the Engineer. Testing of pipe shall be performed in accordance with the latest version of ASTM F-1417.

It is the Contractor's responsibility to have the pipe clean and to determine the ground water level prior to testing the pipe.

Air pressure in the sewer shall be slowly increased to 4.0 psi above groundwater pressure (1.0 psi for each 2.3 feet of water elevation above the highest point of the pipe). Do not allow the air pressure at any point in the pipe to reach 9.0 psi under any circumstances. Allow the pressure to stabilize for 5 minutes, then reduce the pressure to 3.5 psi above groundwater pressure and start the test. Stop the air release and record the decrease in pressure over time. The time taken for the pressure to decrease from 3.5 to 2.5 psi above groundwater pressure shall be equal to or greater than the time below.

Pipe								
Diameter (in.)	Minimum Time Lapse (min:sec)							
	100 ft	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft
8	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48

12	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	14:10	17:48	22:15	26.42	31:09	35:36	40:04
18	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	43:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	51:17	76:55	102:34	128:12	153:50	179:29	205:07	230:46

The time for the pressure to fall from 3.5 to 2.5 psi, both above groundwater pressures, shall not be less than 10 seconds regardless of pipe diameter.

If the time is less than the allowable time, the pipe will be considered defective and shall be repaired and re-tested at no additional cost to the Board.

Safety Provisions: Securely brace the plugs used to close the sewer pipe for the air test in order to prevent the unintentional release of a plug, which can become a high velocity projectile. Locate gauges, air piping manifolds, and valves at the top of the ground. No one shall be permitted to enter a manhole where a plugged pipe is under pressure 4 pounds (gauge) air pressure develops a force against the plug in a 12-inch diameter pipe of approximately 450 pounds. Provide a safety release device set to release at 10 psi between the air supply and the sewer under test. Regardless of the outcome of any test, repair any noticeable leak.

After completing lining and service reinstatement, every liner shall be CCTV inspected segments not fully conforming to these Specifications must be immediately brought to the Engineer's attention. The Contractor shall furnish a written proposed method of correction within 24 hours for approval by the Engineer.

The Board will have a certified independent testing lab analyze finished liner samples taken from the restrained sample located at the manhole invert. The Contractor shall furnish samples directly to the Engineer within 2 days after installation.

A minimum of one (1) sample shall be taken from every four (4) segments installed. The retained samples shall be a minimum of one (1) foot in length. The Contractor shall place a sample mold aligned with and the same size as the existing sewer in such a manner as to allow the installation of the liner material through the retaining sample mold. This sample mold shall be made of SDR 35 PVC, C900 PVC or an Engineer approved equal. The resin-impregnated tube shall be installed and cured through this restraining mold in order to obtain a liner sample representative of the actual liner physical characteristics. All samples shall be labeled with the project number, date of installation, pertinent manhole numbers, nominal thickness, flow direction, and location of installation. The Contractor and Engineer shall acknowledge receipt and transfer of all samples. The independent testing lab will conduct tests in accordance with the latest versions of the ASTM standards for flexural strength, flexural modulus and wall thickness. A sample will be provided by the Contractor to the Engineer for all CIPP installation over 18" inches in diameter to be tested in accordance with ASTM standards.

3.07 ACCEPTANCE

The finished CIPP liner shall be fully rounded and free from visible defects, including but not limited to damage, deflection, holes, delamination, ridges, cracks, uncured resin, foreign inclusions or other objectionable defects as determined by the Engineer.

There shall be no visible infiltration through the liner, or around the liner at manhole or service line connections. The Contractor shall be required to repair any visible leaks in a manner approved by the Engineer.

3.08 NON-CONFORMING WORK

If the thickness, flexural strength, or flexural moduli of elasticity of the installed CIPP liner are less than 80% of the approved design values, the product is considered unacceptable. A method of repair or replacement shall be submitted for review and approval by the Engineer. All work required to remedy non-conforming work shall be at no additional expense to the Board.

For all instances, as described in this Subsection, other than thickness, flexural strength, and flexural modulus of elasticity, where the CIPP liner is deemed unacceptable, the Contractor shall submit a method of repair or replacement for review and approval by the Engineer. All work required to remedy non-conforming work shall be at no additional expense to the Board.

Where post-installation thickness measurements and/or physical property testing is performed, payment for installed cured-in-place pipe shall be made in accordance with the following:

If the thickness, flexural strength, or flexural modulus of elasticity of the installed CIPP are 90% or greater than the specific values, full payment shall be made accordingly. If the thickness, flexural strength, or flexural moduli of elasticity of the installed CIPP are between 90% and 80% of the specified values, with all at least 80% of the specified values, payment shall be based on:

Adjusted Unit Price = Unit Price Bid x Value Factor, where:

Value Factor = [* thickness + * flexural strength + * flexural modulus of elasticity] / 3.

* Insert actual measured or tested result expressed as a percentage of specified value. Maximum allowable percentage is 100%.

If a defect repair is required after the liner has cured, a short segment tube shall be used to splice across the defect repair. The overlap on each defect shall be twice the diameter, or 12 inches, whichever is greater.

3.09 ABANDONMENT OF SEWER RELINING

If pre-installation CCTV inspection reveals that no sewer relining is required in the pipe segment between manholes, due to point repairs or relining having been performed since the last televised inspection, then sewer relining shall be abandoned.

END OF SECTION 9

SECTION 10 SERVICE CONNECTION SEAL + LATERAL FULL WRAP STYLE OR BRIM STYLE CONNECTION SEAL

PART 1 GENERAL

1.01 SERVICE LATERAL LINING

It is the intent of this portion of the specification to provide for the re-construction of a service lateral and connection in 8" through 24" mainline pipes, normally without excavation, by the installation of a one piece resin impregnated, flexible, non-woven felt tube installed into the existing lateral connection utilizing a pressure apparatus positioned in the mainline pipe. Curing shall be accomplished by use of ambient cure resin or other approved method to cure the resin into a hard impermeable cured-in-place (CIPP) pipe liner. When cured, the liner shall have a watertight connection seal at the mainline and extend over the length of the service lateral in a continuous one piece structural pipe- within-a-pipe.

1.02. QUALIFICATIONS OF CONTRACTOR

The contractor or subcontractor performing the work of this section shall be employees of the company manufacturing the CIPP Lateral Lining system components, or shall be licensed by the system manufacturer. The Manufactured System must have a minimum of a five (5) year history of satisfactory performance with a minimum of 10,000 CIPP lateral installations. The contractor or subcontractor shall have a minimum of two (2) years of service continuous experience installing CIPP Lateral Lining in pipe of similar size, length and configuration as proposed in this project. In addition, the contractor or subcontractor shall have successfully installed 5,000 CIPP laterals in a wastewater collection system application. The onsite Superintendent must have installed over 2,500 CIPP laterals of like condition for this geographic area and have minimum of 5 years of CIPP industry experience.

1.03 MEASUREMENT and PAYMENT:

Measurement for the work included in this section will be in accordance with the units set forth in the proposal. Unit prices shall include all labor, materials and equipment required to complete the work as specified. The unit prices shall also include CCTV prior to and after lining, lateral cleaning, bypass pumping of mainline flow, installation of cleanouts (if required by the lateral lining process) and traffic control (standard cones and signs).

Payment for the work included in this section will be in accordance with the prices set forth in the proposal for the quantity of work performed. Progress payments will be made monthly based on the work performed during that period.

Cleaning of the lateral pipe prior to lining: Confirmation of cleaning shall be provided via video inspection.

CIPP lining of up to 5' of lateral pipe: Confirmation of lining length shall be provided via field measurement of the liner prior to installation and via video inspection.

CIPP lining of each additional lineal foot (after 5') of lateral pipe. Confirmation of lining length shall be provided via field measurement of the liner prior to installation and via video inspection.

1.04 WARRANTY:

Contractor warrants to Owner that all products and work provided by Contractor to Owner under this Agreement will be free from material defects in workmanship and materials for a period of five years from the earlier of the date on which Contractor's work is accepted by Owner or the date on which the Contractor completes performance

and leaves the worksite. In the event that a material defect in workmanship or materials supplied by Contractor is found during the five year period following acceptance of the work, then such defect shall be repaired, replaced or adjusted by Contractor at no additional cost to Owner. Owner's exclusive remedy in the event of any warranty claim hereunder is limited to correction of such defect, adjustment, repair or replacement as the Contractor shall at its sole option elect. The foregoing warranty is the exclusive warranty provided by contractor and is given in lieu of all other warranties, whether express, implied or statutory, including but not limited to, any implied warranties of merchantability or fitness or suitability for a particular purpose or use; and all other warranties are hereby expressly disclaimed.

In no event shall Contractor's liability for warranties hereunder exceed the purchase price paid by the Owner for Contractor's work and materials.

The warranty set out above shall be void and of no effect in the event that (i) Contractor is not notified of claim of defect within the five year period provided above; (ii) Contractor is not provided timely and unrestricted access to the site at which the claimed defect is located in order to investigate and/or repair, adjust or replace the work or materials claimed to be defective or Contractor is not provided suitable working conditions to perform such investigation, repair, adjustment or replacement; (iii) any materials or work is exposed to chemicals or substances other than those listed in the Specifications to this Agreement as accepted by Contractor; (iv) site conditions or pipeline, conduit or access way conditions are other than those disclosed to and accepted by Contractor; (v) Owner's site, pipeline, conduit or access ways are cleaned or modified in a manner not disclosed in writing to and accepted in writing by Contractor in advance of commencement of Contractor's work or tampered with prior to, during or after completion of Contractor's work; or (vi) the work, the site at which the work is performed or the materials provided by Contractor are otherwise abused or misused.

1.05 RELATED SECTIONS

- a. Bypass Pumping (also included within this section)
- b. Pipe Cleaning (also included within this section)
- c. CCTV Inspection (also included within this section)

PART 2.0 MATERIALS

2.01 GENERAL REQUIREMENTS:

Tube and resin will meet the requirements of ASTM F 1216, F1743 and D5813.

In industrial areas subject to possible flows other than domestic sewage, the Owner shall obtain samples of the dry weather sewage flow to be analyzed for chemical content. This analysis shall be supplied to the Installer for his information.

2.02 CIPP LATERAL MATERIALS:

The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the conduit specified by the Owner. Allowance shall be made for circumferential stretching during insertion. The liner shall be a one piece joint-less polyester felt tube that will create a watertight seal at the mainline interface.

The minimum length shall be 36 inches (3 feet) to effectively span the distance from the lateral connection at the main or to the desired termination location in the service lateral pipe. For the purpose of this specification, the termination point shall be a distance within 18 inches of the intersection of a cleanout or property line. Lateral

lining will be accomplished without a cleanout when possible. In the event a cleanout is required to complete the lining of the lateral, the Contractor is responsible for including the costs associated with the installation of the cleanout in his bid price for lateral lining (bid item 4 on page 8). When required, an overlap method is performed with a pull-in-process installation from a cleanout or access point back to the main. In either case, the lateral liner must provide a watertight seal at the mainline and a structural repair of the lateral over the specified length. The Installer shall verify the lengths in the field before impregnation of the resin.

Unless otherwise specified, the Installer shall furnish a specially designed, unsaturated, Polyester or Vinylester resin catalyst system compatible with the cured-in-place process that provides cured physical strengths specified herein.

2.03 PHYSICAL STRENGTH:

The structural performance of the finished pipe must be adequate to accommodate all anticipated loads throughout its design life. No cured-in-place pipe reconstruction technology will be allowed that requires bonding to the existing pipe for any part of its structural strength. Only resin vacuum impregnation will be allowed. If reinforcing materials (fiberglass, etc.) are used, the reinforcing material must be fully encapsulated within the resin to assure that the reinforcement is not exposed, either to the inside of the pipe or at the interface of the CIPP and the existing pipe.

Design methods are to be derived from traditionally accepted pipe formulas for various loading parameters and modes of failure. All equations will be modified to include ovality as a design parameter. The design method shall be submitted to the Engineer for approval prior to the pre-bid conference.

The CIPP lateral pipe shall conform to the minimum structural standards as listed below

PROPERTY ASTM Standard RESULTS
Flexural Stress ASTM D 790 4,500 psi
Flexural Modulus ASTM D 790 250,000 psi

2.04 APPROVED MANUFACTURES/PRODUCTS:

BLD "Service Connection Seal + Lateral" of BLD Services, LLC

or pre-approved equal

2.05. REFERENCES

This specification references ASTM test methods which are made a part hereof by such reference and shall be the latest edition and revision thereof.

ASTM F1216 - Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

ASTM F1743 - Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP)

ASTM D5813 - Standard Specification for Cured In Place Thermosetting Resin Sewer Piping Systems

2.06 SUBMITTALS

- A. Product data
- B. Resin

- C. Long term test creep data confirming the resin system's 50 year design life in accordance with ASTM D2990.
- D. Chemical Resistance per ASTM F 1216
- E. Certificate of Compliance with ASTM F 1216
- F. Tube
- G. Certificate of Compliance with ASTM F1216
- H. If glass fiber reinforcement is used, CIPP strain Corrosion testing data in accordance with ASTM D3681
- I. CIPP wall thickness design calculations (for lateral liner) in accordance with ASTM F1216
- J. Contractor Qualifications/References-The contractor or subcontractor performing the lateral lining work shall provide a list of references, including Owner Name, Contact Name with phone number, Contract Name, start and completion dates and Quantity of Laterals Lined, with the CIPP Lateral Lining system used for that specific project provided, verifying compliance with these qualifications. Each project will include the name of the Contractor's Site Superintendent that completed the work. These references must satisfy the minimum requirements of:
 - 1. A five (5) year history of satisfactory performance in the CIPP industry
 - 2. A minimum of 5000 CIPP lateral installations
 - 3. A minimum of two (2) years continuous experience installing CIPP Lateral Lining in pipe of similar size, length and configuration as proposed in this project.
 - 4. A minimum of 2500 CIPP laterals in a wastewater collection system application.
 - 5. The onsite Superintendent must have installed over 2,500 CIPP laterals of like condition for this geographic area and have a minimum of 5 years of CIPP industry experience
 - 6. License or Certification that the proposed installer is approved to install the proposed product
- K. Product Qualifications/References
 - 1. The CIPP Lateral Lining system proposed for this contract must meet the following minimum requirements. The Contractor or Subcontractor performing the lateral lining work shall provide a list of references verifying compliance with these qualifications.
 - 2. A five (5) year history of sanitary sewer use
 - 3. A minimum of 5000 CIPP lateral installations in the United States

PART 3.0 EXECUTION

3.01 INSTALLATION PREPARATIONS:

A. ACCESS – If the Contractor requires access through a cleanout or access pit to complete the lateral lining, the costs associated with the cleanout or access pit will be the responsibility of the Contractor and must be

included within bid item 3 on page 8. If a cleanout already exists or is required by the Owner, it shall be constructed of materials which provide a four inch (4") minimum diameter circular opening, if service lateral is six inch (6") than a six inch minimum diameter opening is required. Any cleanouts will comply with Page 9 and must be wye connections (Tee connection will not be permitted) to allow video inspection, cleaning and lining access.

- B. SAFETY The Installer shall carry out his operations in strict accordance with all applicable OSHA standards. Particular attention is drawn to those safety requirements involving entering confined spaces.
- C. CLEANING OF SEWER LINE The intent of this specification is for cleaning of the lateral to be accomplished from the mainline pipes via lateral launching equipment. If the lateral cannot be cleaned using industry standard cleaning heads that can be launched from the mainline then a cleanout will be required and considered changed conditions. The laterals shall be cleaned a sufficient length to ensure the specified length of sewer is ready for lining. It shall be the responsibility of the Installer to verify, prior to installation, that all internal debris has been removed from the sewer line. Internal debris consists of broken pipe sections, roots, loose gravel, etc.
- D. INSPECTION OF PIPELINES It is the intent of this specification for inspection of the lateral to be accomplished from the mainline pipes via lateral launching equipment. If the lateral cannot be inspected using industry standard inspection equipment that can be launched from the mainline then a cleanout will be required and considered changed conditions. Inspection of pipelines shall be performed by experienced personnel trained in locating breaks and obstacles by closed circuit television. The interior of the pipeline shall be carefully inspected to determine the location of any conditions which may prevent proper installation of the lateral liner into the pipelines, and it shall be noted so that these conditions can be corrected. A DVD and suitable log shall be kept for later reference by the Owner.
- E. BYPASSING SEWAGE The Installer, when required, shall provide for the flow of sewage around the section or sections of mainline pipe where the service lateral designated for lining is located. The bypass shall be made by plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow. It is assumed that flows in the lateral specified for lining will not require bypass pumping.
- F USE OF SERVICE LATERAL-It is required that the service lateral be inactive during the time of installation. This is normally accomplished by turning off the homeowner's services or requesting that the homeowner relinquish using his services during the period of installation. Notification will be distributed to impacted residents 24 hours in advance of the lateral liner installation.
- G. LINE OBSTRUCTIONS- If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, as in solids, dropped joints or collapsed pipe then the Installer shall make a point repair excavation to uncover and remove or repair the obstruction. Such excavation shall be approved in writing by the Owner's representative prior to the commencement of the work and shall be considered as a separate pay item.
- H. LINED MAINS- In the case of lined mainline pipes, the lateral connection specified for rehabilitation shall be reinstated to 100% of its original size to accept the CIPP lateral.

3.02 INSTALLATION OF LATERAL LINING

The Installer shall designate a location where the liner will be vacuum impregnated prior to installation. The Installer shall allow the Owner to inspect the materials and "wet-out" procedure. A catalyst system compatible with the resin and liner shall be used.

The wet-out liner shall be loaded inside a pressure apparatus above ground and utilizing a hydrophilic sealant (or equivalent) on the backside of the connection to enhance a watertight seal. Also, a two-part 100% solid epoxy (reference ASTM C-881) or a Silicate Resin shall be applied to the lateral interface to enhance adhesion against the host pipe. The pressure apparatus, with an end attached to a robotic device, shall be winched through the mainline pipe to the service connection. The robotic device, together with a television camera, will be used to position the pressure apparatus' inversion elbow at the service connection opening. Air pressure, supplied to the pressure apparatus through an inversion hose, shall be used to invert the wet-out liner through the lateral pipe to the cleanout/access point or "Right of Way" point. The inversion head will be adjusted to be of sufficient pressure to cause the impregnated liner to invert completely in the lateral pipe and hold the tube tight to the pipe wall. Care shall be taken during the curing process so as not to overstress the tube.

Curing – In most circumstances, an accelerated ambient-temperature curing resin system will be utilized, however if a heat cure is required, the Installer shall supply a suitable heat source and recirculation equipment. The equipment shall be capable of delivering the approved heating medium throughout the section to the temperature required to affect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.

If a heat cure is required, the heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing air/steam or water supply. Fluid temperature in the line during the cure period shall be recommended by the resin manufacturer. NOTE: No UV cure systems will be allowed.

Initial cure shall be deemed to be completed when inspection of the exposed portions of the CIPP appears to be hard and sound and/or the temperature gauge indicates that the temperature is of a magnitude to realize an exotherm. The cure period shall be of a duration recommended by the resin manufacturer, as modified for the installation process.

Cool-down – The Installer shall cool the hardened CIPP to a temperature below 100°F before relieving the pressure in the pressure apparatus. Cool-down may be accomplished by the introduction of cool air into the pressure apparatus to replace water being forced out of the pressure apparatus. Care shall be taken to maintain proper pressure throughout the cure and cool-down period.

Finish – The finished CIPP shall be a watertight connection seal at the mainline and extend continuous over the entire length of the service lateral and be free of dry spots, lifts, and delamination. This continuous one piece structural pipe-within-a-pipe shall not inhibit the closed circuit television post video inspection of the mainline or service lateral pipes.

Testing – For every 50 laterals, one flat plate sample shall be taken and sent to a 3rd party test laboratory for confirmation of short term flexural modulus and strength properties in accordance with ASTM F1216. The test results shall meet or exceed the values used in the design of the CIPP lateral liner.

During the warranty period, any defects which will affect the integrity or strength of the CIPP liner shall be repaired at the Installer's expense in a manner mutually agreed upon by the Owner and the Installer.

After the work is completed, the Installer will provide the Owner with a CD or DVD showing the completed work including the restored conditions.

3.03 CLEAN-UP:

Upon acceptance of the installation work, the Installer shall reinstate the project area affected by his operations.

END OF SECTION10

SECTION 11 TRENCHING, BACKFILLING & COMPACTION

PART 1.0 GENERAL

1.01 SECTION INCLUDES: Trenching Backfilling Compactions

1.02 MEASUREMENT AND PAYMENT

- A. HOUSE CONNECTIONS For the purpose of calculating select backfill quantities, the depth of the sewer house connection will be the distance from the top of the existing roadway to the top of the pipe, and this measurement will be taken at the curb and at the trench wall for vertical stack tie-ins and only at the curb for connections made directly to the wye on the main, since the average depth of the main will be known. These measurements will be made by the Engineer's inspector and shall be verified by the Contractor's foreman. An average depth shall be determined, and a compaction factor of 1.5 will be used. Allowable trench width for sewer house connections shall be three (3) feet. Deductions in volume will be made for the use of any native material authorized by the Engineer.
- B. MAIN For the purpose of calculating select backfill quantities in restoring the main, the volume will be based upon the length of repair authorized by the Engineer in the "work order", the authorized trench width and the average depth of the boundary manholes less the nominal pipe diameter, the stone bedding and any temporary surface stone and native material. Maximum trench widths allowed are given in *SECTION 11 PART 3.01*. To compensate for the required compaction, a compaction factor of 1.5 will be used.

1.03 PAYMENT FOR SELECT BACKFILL (RIVER SAND)

There is no direct pay for this item. The price for select backfill shall include all labor, equipment and materials for delivering the fill to the site. Complete installation costs shall be included in the price bid for the sewer restoration. Water will be provided from the nearest hydrant free to the Contractor only with the use of a spanner and water meter acquired from the Sewerage and Water Board.

1.04 PAYMENT FOR FILTER FABRIC

Payment for the filter fabric shall be based on the authorized trench width as given in SECTION 11 PART 2, the authorized length shall be included in the bid price of sewer restoration in the proposal. The 18 inch minimum lap between subsequent lengths shall be taken into account when figuring the bid price, there will be no direct pay for this lap.

1.05 PAYMENT FOR NATIVE MATERIAL USED AS BACKFILL

There will be no direct payment for labor, equipment or materials required to remove, store and properly reinstall the backfill when native material is used as backfill. This cost must be included in the price bid per foot for the sewer restoration. Only the Engineer has the authority to order the use of native material for backfill.

PART 2 MATERIALS

2.01 BACKFILL

All soils used for backfill will be subject to prior approval by the Engineer.

2.02 NATIVE CLAY MATERIAL

If the native material is clay and is free of all organic debris, and the Engineer authorizes its use, then it will be used for the first three feet of backfill. The use of filter fabric with this material as described below in 10-5 can only be authorized by the Engineer. The Contractor must remove all pipe fragments, roadway fragments and all other debris from this native material before replacing it in the trench. From that point to a point 9" below the bottom surface of the roadway, select backfill shall be used. The remaining portion of the trench through a paved area shall be backfilled with crushed stone (or approved equal) and compacted as described in *paragraph 18 of Section D in the General Specifications*. The Contractor will be required to maintain the trenches with sub-base as described in *SECTION 11 PART 3.08*.

2.03 NATIVE SAND MATERIAL AND FILTER FABRIC

If the native material is sand and is free of all organic debris, then it will be used for the first three feet of backfill, or to any thickness directed by the Engineer, and a filter fabric, acceptable to the Engineer, will be used, according to the Non-Standard Trench or Standard Trench method listed in SECTION 11 Part 2.04 and 2.05.

2.04 NON-STANDARD TRENCH

After constructing the trench, place the foundation lumber in the trench as required.

Cut the filter fabric to the appropriate width which allows for loose placement across the trench bottom width, a minimum of 24 inches to allow for compacted crushed stone, twice the outside pipe diameter and twice the trench width on top of the compacted stone. The fabric shall be laid in the trench with an 18" minimum overlap at the ends of subsequent lengths. The fabric shall be placed symmetrically in the trench to ensure a double layer of fabric across the width of the stone over the pipe prior to placing the backfill. Avoid wrinkles, folds and voids. Pin the sides of the fabric against the sides of the trench with lengths of boards spanning the width of the trench, or by an equivalent method acceptable to the Engineer, and avoid puncturing the fabric.

Place the bedding material in the trench and compact, install the pipe and remaining bedding material and compact as required.

Unfasten the fabric from the sides of the trench and lap over the crushed stone covering the pipe, ensuring a double layer of fabric across the width of the trench.

2.05 STANDARD TRENCH

Construct the trench, driving the sheeting and placing the mud sills and braces as required.

Place the native material in any voids between the top of the mud sills and the subgrade, then place the foundation planking on top of the mud sills.

Cut the filter fabric and install as in SECTION 11 PARTS 2.04 and 2.05 above.

Place the bedding material on top of the filter fabric and foundation planking and compact, then install the pipe and remaining bedding material as required, then compact.

Unfasten the fabric from the sides of the trench and lap over the compacted stone covering the pipe, ensuring a double layer of fabric across the width of the trench.

2.06 UNSATISFACTORY NATIVE MATERIAL

If the native material is unsatisfactory to the Engineer, then select backfill will be used solely. In this case, filter fabric must be used in accordance with the applicable method described in *paragraph 10-5* above. The backfill shall be compacted to the point given in *paragraph 7-16* below the top surface of the roadway.

2.07 FILTER FABRIC

The filter fabric used shall comply with specifications detailed in SECTION 4 PART 2.05.

PART 3 EXECUTION

3.01 AUTHORIZED TRENCH WIDTHS

The authorized trench width allowed for solid wall PVC pipe shall be as follows:

	1 1
MAXIMUM TRENCH WIDTH	PIPE DIAMETER
ALLOWED	
3 feet	6 inch
4.6	0 ' 1 1 10 ' 1
4 feet	8 inch and 10 inch
3 feet plus the outside diameter of	12 inches and greater
pipe	

3.02 STANDARD DRAWING NUMBER 4697-E5-A

The Sewerage and Water Board Standard Drawing numbered 4697-E5-A shall be used to determine the sizes, spacing and other dimensions related to the sheeting, bracing, and foundation lumber and also to stone placement for pipe trenches. The Contractor shall bid the job according to the trench cross-sections given on this drawing.

The standard bottom shall not be installed as a prefabricated box. Instead, the wood sheeting shall first be driven and bracing placed, then the mud sills driven into the mud and properly braced, all voids filled with compacted bedding stone before the planking is installed. Then the filter fabric is to be placed in accordance with these special specifications. If sand is the native material in the trench, then, the wood sheeting shall be driven via a method, which meets the approval of the Engineer. Pounding of sheeting into soil will not be allowed. For this paragraph, the definition of sand shall be soil of which fifty (50%) percent or more of a representative sample by weight is retained on a number 200 sieve."

3.03 USE OF A TRENCH BOX

The Contractor will be required to sheet and brace the trench in accordance with the Sewerage and Water Board General Specifications and the Sewerage and Water Board Standard Drawings, except as changed in these Special Specifications. Before excavating any trench five (5) feet or more in depth, the Contractor shall submit to the Engineer a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for the workers' protection from the hazard of caving ground during the excavation of such trench. If the plan varies from the shoring systems standards, a Registered Civil Engineer shall prepare the plan. No excavation shall start until the Engineer has accepted the plan. At the option of the Contractor and with written permission form the Sewerage and Water Board Engineer; a trench box may be used under the following guidelines:

- A. Quantities paid will be based on the authorized trench width as stated in this section *part 3.01* The trench box may not extend below the level of the top of the sewer main at any time during the repair.
- B. Removal of the trench box may only be accomplished vertically and in one-foot increments in conjunction with the backfilling.
- C. The trench box must be certified by a Professional Engineer and be in compliance to OSHA requirements.
- D. The minimum amount of sheeting must be installed (SEE PARAGRAPH 3.02 OF THIS SECTION AND STANDARD DRAWING NUMBER 4697-E5-A).

3.04 BACKFILLING

- A. The backfilling of trenches shall be accomplished immediately after the installation of the new sewer main and house connections. All backfilling shall be accomplished in one foot lifts. Each lift must be compacted by the use of a mechanical tamper, or an equivalent acceptable to the Engineer, prior to the application of the next lift.
- B. The Contractor must remove all pipe fragments, roadway fragments and all other debris from this native material before replacing it in the trench. From the height of native material directed by the Engineer, to a point 9" below the bottom surface of the pavement, select backfill shall be used. The remaining portion of the trench through a paved area shall be backfilled with crushed stone (or approved equal) and compacted as described in *PARAGRAPH 18 OF SECTION D IN THE GENERAL SPECIFICATIONS*. The Contractor will be required to maintain the trenches with sub-base as described in this section.
- C. Flooding or jetting of the backfill to attain proper compaction will not be allowed unless the Contractor utilizes well point equipment, that meets prior approval of the Engineer, concurrently, to draw the excess moisture from the flooded backfill. The only occasion that flooding will be allowed without the use of well points is to fill voids around

other utilities crossing the trench, once the backfill has been properly compacted up to the point where the mechanical tamper cannot compact the soil under and around that utility, or as otherwise directed by the Engineer. There will be no pay for well point equipment installation or maintenance when used for flooding or jetting.

3.05 COMPACTION

- A. The backfilling of trenches shall be accomplished immediately after the installation of the new sewer main and house connections. All backfilling shall be accomplished in one foot lifts. Each lift must be compacted by the use of a mechanical tamper, or an equivalent acceptable to the Engineer, prior to the application of the next lift.
- B. Regardless of the method of compaction, the Contractor will be responsible for attaining proper compaction as stated herein. Flooding or jetting may cause difficulty in obtaining the required 95% compaction, due to excessive moisture in the soil, and this must be considered when choosing the compaction method.

3.06 COMPACTION TESTS

Random field density tests will be taken he backfill by an independent testing laboratory retained by the Sewerage and Water Board. Each one foot lift shall be compacted at or near optimum moisture content to a minimum of 95% standard Proctor density (ASTM D698) prior to applying the next lift. The test results will be used to verify proper replacement of the backfill prior to pavement restoration.

The costs charged to the Sewerage and Water Board by the testing lab for all failed compaction tests will be deducted from the Contractor's invoice for the repairs.

Regardless of the method of compaction, the Contractor will be responsible for attaining proper compaction as stated herein. Flooding or jetting may cause difficulty in obtaining the required 95% compaction, due to excessive moisture in the soil, and this must be considered when choosing the compaction method. Under no circumstances will the Contractor be allowed to install a lift of backfill over a lift that failed a compaction test.

3.07 MAINTENANCE OF SUB-BASE

The Engineer has the authority to require the Contractor to restore the pavement within a time period less than thirty (30) days, at no additional costs. The Contractor will be informed by the Engineer prior to the beginning of the sewer restoration if it will be necessary to restore the pavement within a lesser period than thirty (30).

3.08 MAINTENANCE OF INTERIM PAVEMENT (SUB-BASE)

Sub-base material shall be placed in the trench at the following thicknesses and shall be maintained continuously by the Contractor until the final pavement is restored:

Concrete roadways: compacted thickness of sub-base shall be no less than pavement thickness.

Asphalt roadways: compacted thickness of sub-base shall be no less than six (6") inches plus the thickness of the asphalt. All types of pavements with a concrete base: compacted thickness of sub-base shall be no less than the thickness of the composite pavement.

The Contractor shall place the sub-base material immediately after completion of the backfill. The Contractor shall maintain the sub-base continuously for thirty (30) days at no direct pay. The cost of the sub-base material, its placement and maintenance shall be included in the price bid for sewer repairs. Restoration under contract 30267 will be completed by others.

***END OF SECTION 11 ***

SECTION 12

SURFACE RESTORATION

1.01 MATERIALS AND METHODS

All permanent roadways, sidewalk and driveway shall conform to City of New Orleans Department of Public Work Specifications.

2.01 PAVEMENT REPLACEMENT

In certain instances, the Sewerage and Water Board will have the paved surfaces restored by the Department of Public Work Maintenance. In these cases, the Contractor is not liable for the final paved surface or any claims resulting from pavement failure, unless the Engineer considers any failure of the pavement to be a result of improper or inadequate work performed by the Contractor while restoring the sewer main and backfill. The Contractor will be responsible for maintaining the crushed stone surface, at no direct pay, for a period of 21 days after notifying the Engineer, in writing by telecopy transmission, that the temporary pavement restoration has been completed. To provide for the comfort and safety of the traveling public, the Contractor shall install temporary hot mix asphaltic concrete pavement. It is the Contractor's responsibility to backfill and place temporary hot mix asphaltic concrete pavement over all completed water lines in streets within forty-eight (48) hours after completion of repairs, unless otherwise directed in writing by the Engineer.

Following backfill of an excavation, unless the Engineer directs the Contractor that surface restoration is to be performed by others, the Contractor must continuously maintain temporary crushed stone or asphalt surface until the Contractor completes permanent surface restoration.

3.01 NOTIFICATION TO STREETS MAINTENANCE DEPARTMENT

The Contractor will be required to arrange a meeting with the Streets Maintenance Department and the Engineer prior to mobilization to a site to allow the Streets Maintenance Department the opportunity to inspect the site in the presence of the Contractor and the Engineer, and to inform the Contractor and the Engineer of the type of restoration that the Department of Streets recommends.

4.01 TYPE OF RESTORATION

When the Contractor is ready to begin the restoration of roadway surfaces, he shall again arrange a meeting with the Engineer and a representative of the Streets Department to make final determination of the amount of surface to be replaced and as to the type of surface replacement.

5.01 MINIMUM RESTORATION REQUIREMENTS

The Contractor will be required to restore neighboring areas to at least the condition that existed prior to their arrival on the jobsite. All work performed on city property will conform to the specifications of the concerned agency. Work on private property will conform to the requirements of the property owner, with the understanding that the Contractor will not be required to restore damaged property beyond that which existed prior to his arrival at the location. The Board will not assume any liability for any suits arising from claims of this nature. The cost of cutting and restoring all surfaces that were damaged as a result of negligence of the Contractor shall be borne by the Contractor and shall conform with the requirements as described in Section B of the General Specifications except where modified by S&WB Drawing 7007-SWB and as noted herein.

6.01 ROADWAY THICKNESSES

The typical allowed thickness for pavements shall be as follows:

asphalt paved roadways 5" concrete paved roadways 8"

asphalt with concrete base 8" concrete base and 2" of asphalt

The Contractor will be paid for the above thickness only, unless deviations in which the thickness is authorized by the Engineer. The Contractor shall notify the Engineer if; deviations from such typical thickness is necessary, prior to replacing the pavement. At that time, the Engineer will determine the thickness of restoration materials and inform the Contractor of his determinations.

7.01 PAYMENT FOR RESTORATION

Payment for restoration of the roadways will be based upon the prices bid in the proposal. The Contractor will be reimbursed for additional widths and lengths only if they were authorized by the Engineer.

In cases where existing construction joints require additional width or length of cuts, the Contractor must notify the Engineer to receive authorization to remove and replace these sections.

Cutting and restoration of additional widths and lengths, unless previously authorized by the Engineer, will be at the Contractor's expense.

Asphalt tonnage will be based on a unit weight of 145 lbs/cf.

Roadway concrete will be based on a minimum thickness of eight (8) inches.

Additional inches of thickness will be paid in multiples of one-seventh (1/7) the price per square yard of concrete roadway bid in the proposal.

8.01 CURBS, DRIVEWAYS AND SIDEWALKS

Removal and restoration of curbs, driveways and sidewalks shall match existing and shall comply with Department of Streets specifications. These items will be paid for at the prices bid. The prices bid shall include all necessary labor, equipment and materials to install the complete item.

9.01 UNPAVED AREAS

In unpaved areas, surface restoration shall conform to the specifications as listed above with the following exceptions: Batture sand shall be used instead of the top layer of crushed stone. This batture sand shall be compacted by means of a mechanical tamper and shall be maintained by the Contractor. Once it has been determined by the Engineer that settlement in the area is complete, the contractor will be responsible for the procurement, application, and maintenance of grass seeding in a manner that will match the surrounding areas. The grass seeding, and the restoration thereof, shall be in a manner that is acceptable to the Engineer. "Squaring the cut" will not be required for cuts located in unpaved areas. No direct payment for grass seeding will be made, the cost of this work shall be included in the price bid for batture sand.

In some instances, it will be necessary to use sod in place of seeding to match the neighboring area. The price bid for sod shall include all equipment, material and labor for batture sand and sod in place.

10.01 COMPLETION OF PAVEMENT WORK

Once the pavement has been completed, the site has been swept clean of all sand, stone and debris, and all construction equipment and materials removed from the site, the Contractor will be required to fill out a Street Maintenance Form SD500-ML to inform the Streets Maintenance that the job has been completed. It will be the responsibility of the

Contractor to deliver this form to the Street Maintenance Yard, 838 S. Genois immediately. There is no direct payment for this item.
END OF SECTION 12

SECTION 13 GEOSPATIAL INFORMATION SERVICES (GIS)

PART 1.0 GENERAL

1.03 SEWERAGE & WATER BOARD OF NEW ORLEANS GIS

The Board has developed an ESRI based Enterprise GIS to manage its utility infrastructure data. This GIS has certain quality and format requirements which must be adhered to including GPS positional accuracy and data format. Bidders must demonstrate the ability to meet these requirements. The Contractor must maintain these requirements continuously throughout the contract period unless otherwise specifically excluded, in writing, by the Engineer. 1.04 PAYMENT

There shall be no direct pay for collecting and submitting the GIS data deliverable. These services shall be included in the unit costs.

PART 2.0 MATERIALS

- 2.01 GPS LOCATIONS EQUIPMENT
- A. Positional accuracy is important to The Board. All utility feature inspections should include the capture of GPS positional data. The Board requires the use of "Mapping Grade" GPS equipment capable of sub-foot or better horizontal precision after differential post-processing or through the use of real time kinematics. The Board requires:
- B. Trimble GPS receivers and/or Data collectors or equivalent
- C. A minimum of 20, 1-second positions must be captured using TerraSyncTM or equivalent Software and post-processed using Trimble Pathfinder Office Software or required equivalent.
- D. Differential post-processing must include a minimum of 3 Base stations within 100Km of the project site.
- E. Provided GPS data must include, at a minimum, the Receiver Type, GPS Date and Time, Filtered and Unfiltered Number of Positions, Horizontal Precision, and Northing and Easting Coordinate pairs relative to The Board's Enterprise GIS coordinate projection.
- F. The GPS data collection equipment make, models, serial numbers and manufacturer's specification sheet including positional capabilities, as well as the names and versions of data collection and differential post-processing or Real Time Kinematics software and a detailed description of the methodology which will be used to meet these requirements must be submitted as part of this bid.

PART 3.0 EXECUTION

- 3.01 GPS LOCATIONS DATA FORMAT
- A. GPS data must be collected with sub foot accuracy and delivered in the coordinate projection parameters provided or defined by the Engineer. In addition 'metadata' describing the equipment and post processed accuracy for each inspection and/or collected feature point must be provided. This metadata is to accompany the feature's GIS inspection data format as GIS Related Table(s) and submitted with the inspection GIS. These GIS deliverables must be prepared and submitted in compliance with the following version and format specifications:
- B. Version: All deliverables must be upward and/or backward compatible with the current version of ESRI's ArcGIS solutions, data and software employed on The Board's network. No submittals prior than (version 10.1) will be accepted.
- C. Format: Only geodatabase structured data will be accepted. Within this format one or more of the following conditions will be adhered to:
- a. The Board will furnish existing geodatabase format data model schema via geodatabase file and data will be returned in the same.
- b. If furnished and specifically delineated, existing geodatabase (Feature Class and/or Related Table) format data model schema will be followed and populated. Any recommendations for changes or additions to this geodatabase data model schema must be presented in writing and will be accepted only with approval from the Engineer prior to data deliverables.
- c. If no existing geodatabase data model schema is furnished by The Board data deliverables will be structured as follows with the approval of the Engineer:

- D. Feature Class: A geodatabase Feature Class will be designed and developed to hold vital feature information relative to the contracted activities. Specifically a Feature Class will contain Identification, location, Feature-specific static data.
- a. Identification must include GIS ID (from board provided maps or GIS data).
- b. Location may include Street Address, Location Description, or other informative data, in addition to GPS data, to allow The Board to easily identify features.
- c. Feature-specific static data must be included such as, but not limited to: Latitude, Longitude and Elevation of Manhole casing, Pipe Invert elevation, Pipe Diameter, Pipe Material, Restoration Latitude and Longitude.
- d. Related Table(s): In addition to the required Feature Class, Related Tables may be required and/or included in deliverables. Related tables generally contain dynamic 'condition' data related to the Features being inspected. These data are connected within the geodatabase using Relationship Classes which link Dynamic data to Static feature data using a unique (primary) key such as the Unique GIS ID.
- 3.02 DATA DELIVERABLE SCHEDULE

GIS data deliverables must be prepared and submitted with each invoice or as directed by the Engineer. GIS data deliverables shall be required as supporting documentation for any work performed during an invoicing period.

END OF SECTION 13

RIGHT TO AUDIT

The Sewerage and Water Board of New Orleans ("the Board") have the right to audit by its personnel or its authorized representative at all reasonable times, any and all records pertaining to the administration of this contract by the contractor, including its records of ay subcontractors(s) employed on the contract. Such records shall be made and kept by the contractor in accordance with generally accepted accounting principles and practices. Records shall include, but are not limited to, accounting records, daily reports, correspondence and subcontract files (hard copies as well as computer readable data, if it can be made available).

Records subject to the audit shall also include, but not limited to, those records necessary to evaluate and verify direct and indirect costs (including overhead allocations) as they may apply to cost and/or change order requests associated with this contract. The Board also reserves the right to interview employees, make photocopies, and inspect any all records at a reasonable time for a minimum of five (5) years after completion of the project or formal acceptance by the Board of the contract. Contractors shall be required to retain such files of the project as described herein for a minimum of five (5) years after completion of the project or formal acceptance of the contract of the Board.

APPENDIX C

LANDSCAPING

Landscaping

TREE PROTECTION. At the field plan-in-hand meeting of each project, the Department of Streets and the Park and Parkway Commission will prepare a list which will state the location of each tree by station and distance off the survey base line and what work is required at each tree location. The list and what work is required at each tree location. The list will be enclosed in the project specifications.

- (a) The Contractor shall be responsible for damage to any City tree within the construction area and liable to the City for Compensation of damage.
- (b) The Contractor must notify the Parkway & Park commission, Tree Department at least three (3) working days prior to the beginning of construction.
- (c) The Contractor shall provide a Louisiana Licensed Arborist to perform necessary tree trimming, root pruning, or removal of any tree or stump on City property. A current list of licensed arborists may be obtained from:

Parkway & Park Commission Tree Department 2829 Gentilly Blvd New Orleans, LA 70122 Ph. (504) 284-2123 or 286-2100 Fax. (504) 286-2158

- (d) The Licensed Arborist must obtain a permit from the Parkway & Park Commission, Tree Department prior to working on any City Trees.
- (e) Prior to beginning construction, the Contractor must complete trimming trees requiring clearance for all new construction.
- (f) The attachment of signs, barricades, equipment or materials in any manner to any tree is prohibited.
- (g) Excavation within the dripline of any City tree is permitted only under existing roadbeds. All other excavation (i.e. street widening, neutral grounds, or sidewalks) within the dripline of any City trees will be inspected by the Parkway & Park Commission, Tree Department prior to beginning construction.
- (h) Trenching within the dripline of any City tree is not permitted Boring or hydraulic jacking is acceptable within the dripline if performed according to the following specifications. The boring or jacking must be a minimum depth of thirty inches (30") and begin ten feet (10") from the dripline of the tree and bore directly under the center of the tree's main stem. Placement of boring pits and direction of the boring must be approved by the Director prior to beginning construction. Under unusual conditions, the Director may approve alternative methods. Boring or jacking shall be incompliance with Section C728 "jacked or bored pipe."

WIFIA REQUIRED CLAUSES FOR CONTRACT DOCUMENTS

The "Specification Package and Bid and Contract Language" packet is a document that includes everything that must be in the specification package as a requirement of the WIFIA program.

The package provides all necessary language for WIFIA funded projects.

EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THE FEDERAL LANGUAGE PROVISIONS WITH RESPECT TO STATE OR LOCAL LAW.

Borrower-Specific Requirements

Demonstration Cities and Metropolitan Development Act, 42 USC 3301 et seq., as amended and Executive Order 12372, 47 FR 30959, July 16, 1982

Prohibitions relating to violations of CWA and CAA with respect to Federal contracts, grants, or loans under 42 USC 7606 and 33 USC 1368 and EO 11738, 38 FR 25161, September 12, 1973

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 USC 4601 et seq

Economic and Miscellaneous Authorities

Debarment and Suspension, Executive Order 12549, 51 FR 6370, February 21, 1986 Suggested Contract Language: Contractor certifies that it will not knowingly enter into a contract with anyone who is ineligible under the 40 CFR Part 32 to participate in the Project. Suspension and debarment information can be accessed at http://www.sam.gov. Contractor represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its subcontracts under this Agreement.

New Restrictions on Lobbying, 31 USC 1352

Suggested Contract Language: FEDERAL LOBBYING RESTRICTIONS. Recipients of federal financial assistance may not pay any person for influencing or attempting to influence any officer or employee of a federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress with respect to the award, continuation, renewal, amendment, or modification of a federal grant, loan, or contract. These requirements are implemented for USEPA in 40 CFR Part 34, which also describes types of activities, such as legislative liaison activities and professional and technical services, which are not subject to this prohibition. Upon award of this contract, Contractor shall complete and submit to the City the certification and disclosure forms in Appendix A and Appendix B to 40 CFR Part 34. Contractor

shall also require all subcontractors and suppliers of any tier awarded a subcontract over \$100,000 to similarly complete and submit the certification and disclosure forms pursuant to the process set

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forth in 40 CFR 34.110.

Civil Rights, Nondiscrimination, EEO Authorities

General Introductory Language

CIVIL RIGHTS OBLIGATIONS. Contractor shall comply with the following federal nondiscrimination requirements:

- a. Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, and national origin, including limited English proficiency (LEP).
- b. Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against persons with disabilities.
- c. The Age Discrimination Act of 1975, which prohibits age discrimination.
- d. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex.
- e. 40 CFR Part 7, as it relates to the foregoing.
- f. Executive Order No. 11246

Title VI of the Civil Rights Act of 1964, 42 USC 2000d et seq

Incorporated by reference in introductory language only. No additional language.

Section 504 of the Rehabilitation Act, 29 USC 794, supplemented by EO 11914, 41 FR 17871,

April 29, 1976 and 11250, 30 FR 13003, October 13, 1965

Incorporated by reference in introductory language only. No additional language.

Age Discrimination Act, 42 USC 6101 et seq

Incorporated by reference in introductory language only. No additional language.

40 CFR Part 7

Incorporated by reference in introductory language only. No additional language.

Equal Employment Opportunity, EO 11246, 30 FR 12319, September 28, 1965

**EEO Required Contract Language. Must be included verbatim. **

Equal Employment Opportunity Obligations Under EO 11246:

The Contractor shall comply with Executive Order 11246, entitled 'Equal Employment

Opportunity,' as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR Part 60).

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Contractor's compliance with Executive order 11246 shall be based on implementation of the Equal Opportunity Clause, and specific affirmative active obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4.

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, sexual orientation, gender identity, 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, sexual orientation, gender identity, 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 advancements 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, sexual orientation, gender identity, or national origin.
- 3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding,

hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

- 4) 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.
- 5) 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.
- 6) 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.
- 7) 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,

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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.

8) The contractor will include the provisions of paragraphs (1) through (8) 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 EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966–1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230, EO 13665 of April 8, 2014, 79 FR 20749, EO 13672 of July 21, 2014, 79 FR 42971] Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) located at 41 CFR 60-4.3:

- 1) As used in these specifications:
- a) "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b) "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
- c) "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- d) "Minority" includes:
- i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
- ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
- iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- 2) Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
- 3) If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an

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association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

- 4) The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
- 5) Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- 6) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment

opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

- 7) The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

 a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work.

 The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available,

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- c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
- d) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

- e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j) Encourage present minority and female employees to recruit other minority persons and

women and, where reasonable, provide after school, summer and vacation employment to **00 73 00B-7**

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minority and female youth both on the site and in other areas of a Contractor's work force.

- k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
- l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n) Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 8) Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the

Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

- 9) A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- 10) The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.
- 11) The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- 12) The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as

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amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

- 13) The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
- 14) The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at

least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15) Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

Segregated Facilities, 41 CRF 60-1.8

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensuring that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. This obligation extends to all contracts containing the equal opportunity clause regardless of the amount of the contract. The term "facilities," as used in this section, means waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, wash rooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees; Provided, That separate or single-user restrooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246) located at 41 CFR § 60-4.2:

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

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2. The goals and timetables for minority and female participation, expressed in percentage

terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for minority participation for each

trade

Goals for female participation in each

trade

Insert goals for each year 1 6.9%2

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

Participation by Disadvantaged Business Enterprises in Procurement under EPA Financial Assistance Agreements, 73 FR 15904

1 Goals can be found at: https://www.dol.gov/ofccp/TAguides/TAC_FedContractors_JRF_QA_508c.pdf

2 Nationwide goal for all covered areas

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*Note: Minimal requirement of the WIFIA program is to incorporate six good faith efforts during contract and subcontract procurement and maintain documentation of efforts. State may require additional DBE reporting.

Contractor agrees to comply with the requirements of USEPA's Program for Utilization of Small, Minority and Women's Business Enterprises. The DBE rule can be accessed at www.epa.gov/osbp. Contractor shall comply with 40 CFR Section 33.301, and retain all records documenting compliance with the six good faith efforts. The Contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the Contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

American Iron and Steel and Federal Labor Standards

American Iron and Steel Requirement

The Contractor acknowledges to and for the benefit of ______ ("Purchaser") and the United States Environmental Protection Agency ("EPA") that it understands the goods and services under this Agreement are being funded with monies made available by the Water Infrastructure Finance and Innovation Act program of the EPA that has statutory requirements commonly known as "American Iron and Steel" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contactor pursuant to this Agreement. The Contractor hereby represents, warrants and covenants to and for the benefit of the Purchaser and the EPA that (a) the Contractor

has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the EPA. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or the EPA to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or the EPA resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the EPA or any damages owed to the EPA by the Purchaser). While the Contractor has no direct contractual privity with the EPA, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the EPA is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the EPA.

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Labor Laws and Standards

Note that the language below addresses Davis Bacon and Related Acts and incorporates the WIFIA borrower (Sewerage and Water Board of New Orleans) as an authorized representative, in accordance with the WIFIA loan agreement, to ensure compliance with this federal requirement.

Required Contract Language.

Compliance with Davis-Bacon and Related Acts.

(a) 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 29 C.F.R. § 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 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

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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.

(ii)

- (A) The WIFIA assistance recipient, [Sewerage and Water Board of New Orleans], on behalf of the U.S. Environmental Protection Agency (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 WIFIA assistance recipient 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 WIFIA assistance recipient 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 to the Administrator of the Wage and Hour Division (WHD Administrator), U.S. Department of Labor, Washington, DC 20210. The WHD Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the WIFIA assistance recipient or will notify the WIFIA assistance recipient 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 WIFIA assistance recipient do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the WIFIA assistance

recipient shall refer the questions, including the views of all interested parties **00 73 00B-13**

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and the recommendation of the WIFIA assistance recipient, to the WHD Administrator for determination. The WHD Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the WIFIA assistance recipient or will notify the WIFIA assistance recipient 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. [Sewerage and Water Board of New Orleans], shall upon written request of the WIFIA Director 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 (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 WIFIA Director 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 **00 73 00B-14**

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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) {no text here}
- (A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to [Sewerage and Water Board of New Orleans]
- . The payrolls submitted 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 weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division

Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to [Sewerage and Water Board of New Orleans], for transmission to the EPA, 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

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Version 3 – February 2021 DIVISION 0-STANDARD numbers to the prime contractor for its own records, without weekly submission to [Sewerage and Water Board of New Orleans]).

- (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 Sewerage and Water Board of New Orleans, 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 EPA may, after written notice to the [Sewerage and Water Board of New Orleans], 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

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- (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 WHD 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 **00 73 00B-17**

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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 WHD Administrator 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 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 00 73 00B-18

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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 [Sewerage and Water Board of New Orleans], 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.
- (b) Contract Work Hours and Safety Standards Act. The following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section shall be inserted 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 \$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 therefor 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,

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employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$25 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 [Sewerage and Water Board of New Orleans] shall upon its own action or upon written request of an authorized representative of the Department of Labor, or the EPA, 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 § 5.1, 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

EPA shall cause or require the Sewerage and Water Board of New Orleans] 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 [Sewerage and Water Board of New Orleans], EPA and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

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