

**SEWERAGE AND WATER BOARD  
OF NEW ORLEANS**



**CONTRACT NO. 1452  
SOLICITATION NO. 2024-SWB-16**

**STRUCTURAL AND FILTER REHABILITATION IN SYCAMORE  
FILTER GALLERY FILTERS #19, 20, 25, 26, & 28**

**PROPOSALS DUE ON  
May 6, 2024 AT 11:00 A.M., CENTRAL TIME**

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SEWERAGE & WATER BOARD OF NEW ORLEANS  
STRUCTURAL AND FILTER REHABILITATION IN SYCAMORE FILTER GALLERY, FILTERS  
#19, 20, 25, 26, & 28  
CONTRACT NO. 1452  
SOLICITATION NO. 2024-SWB-16

The Sewerage and Water Board of New Orleans is requesting bids for the rehabilitation of existing filters in the Sycamore Filter Gallery, including demolition and replacement of valves and actuators, filter media replacement, demolition and replacement of structural steel members, demolition and replacement of control table valves, rehabilitation of catwalks and concrete walkways, and rehabilitation of doors and windows.

Bid Documents and proposal forms are available for download on April 5, 2024, at the following websites: SWBNO: [https://www2.swbno.org/business\\_bidspecifications.asp](https://www2.swbno.org/business_bidspecifications.asp)  
LAPAC: <https://wwwcfprd.doa.louisiana.gov/OSP/LaPAC/dspBid.cfm?search=department&term=181>

A **NON-MANDATORY** pre-bid conference will be held on April 15, 2024, at 11:00 a.m. Central Time at the Purchasing Conference Room 131, 625 St. Joseph Street, New Orleans, Louisiana or if you are unable to attend this in-person meeting, you can also join via teleconference call:

## Microsoft Teams meeting

**Join on your computer, mobile app or room device**

[Click here to join the meeting](#)

Meeting ID: 248 263 991 119

Passcode: dmwy2G

**Or call in (audio only)**

+1 504-224-8698,,947831462# United States, New Orleans

Phone Conference ID: 947 831 462#

Per LA Revised Statute 38:2212 (I), All prospective bidders shall be present at the beginning of the pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.

All inquiries shall be directed to Connor Metcalf, Procurement Analyst, at [cmetcalf@swbno.org](mailto:cmetcalf@swbno.org). The deadline for inquiries is on April 18, 2024, at 5:00 p.m. Central Time.

Bids are due on **May 6, 2024, at 11:00 a.m.** Any Bids received after the specified time will be rejected.

Bids will then be publicly opened and read on **May 6, 2024, at 11:30 a.m.** at Sewerage and Water Board of New Orleans, 625 St. Joseph Street, Purchasing Conference Room 131, New Orleans, Louisiana.

## Microsoft Teams meeting

**Join on your computer, mobile app or room device**

[Join the meeting now](#)

Meeting ID: 254 524 301 468

Passcode: 8JoGko

**Or call in (audio only)**

[+1 504-224-8698,,759787350#](tel:+15042248698759787350) United States, New Orleans

Phone Conference ID: 759 787 350#

LATE BIDS WILL NOT BE ACCEPTED.

## 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.

### 2. 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://www2.swbno.org/business_bidspecifications.asp) (Click on Doing Business, then Advertisements & Specifications) Reproduction costs for any of the downloaded electronic Bidding Documents shall be borne by the Contractor.

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 15, 2024 at 11:00 a.m. at the Sewerage and Water Board of New Orleans, 625 St. Joseph Street, Purchasing Conference Room 131, New Orleans, Louisiana. This meeting will also be accessible via teleconference:

### Microsoft Teams meeting

**Join on your computer, mobile app or room device**

[Click here to join the meeting](#)

Meeting ID: 248 263 991 119

Passcode: dmwy2G

**Or call in (audio only)**

[+1 504-224-8698,,947831462#](#) United States, New Orleans

Phone Conference ID: 947 831 462#

6.1. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are required to attend and participate in the conference. An award will be issued to Bidders that have a representative at the pre-bid conference. 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 Purchasing 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 18, 2024 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. With each electronic copy of the Bidding Documents, Bidder will be furnished one separate Bid Form, and, if applicable, the Bid Bond Form. Contractor is to print and complete all pertinent documents included as the Original Form of Proposal.

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. Lump Sum:

15.1.1. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.

15.1.2. Bidders shall submit a Bid on a lump sum basis for the base Bid and include a separate price for each alternate described in the Bidding Documents as provided for in the 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 02, 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 Bid Form, Section 00 41 13 Louisiana Uniform Public Work Bid Form is to be completed and submitted with the Bid Security. The two (2) lowest bidders will have three (3) days following the bid opening to submit the following:

16.1.1. Additional Requirements, Bidder Declaration, Guarantees, and Emergency Procedures.

16.1.2. Affidavit

16.1.3. Voluntary Extensions of the Award of Contract

16.1.4. Affidavit of Noncollusion

16.1.5. Conflict of Interest Disclosure Affidavit

16.1.6. Convicted Felon Affidavit

16.1.7. Non-Solicitation Affidavit

16.1.8. Economically Disadvantaged Business Participation Summary Sheet

16.2. 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."

16.3. 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 6, 2024 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 meeting

**Join on your computer, mobile app or room device**

[Join the meeting now](#)

Meeting ID: 254 524 301 468

Passcode: 8JoGko

**Or call in (audio only)**

[+1 504-224-8698,,759787350#](#) United States, New Orleans

Phone Conference ID: 759 787 350#

## 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:

<b><u>Contract Value</u></b>	<b><u>Fee</u></b>
Under \$1,000.00	\$220.00
\$1,000.00 to \$49,999.99	\$410.00
\$50,000.00 to \$499,999.99	\$1,042.00
\$500,000.00 to \$999,999.99	\$2,237.00
\$1,000,000.00 or over	\$4,474.00

#### 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

23.1 The proposal submitted by the staff-recommended bidder will be tentatively selected by the appropriate Sewerage and Water Board Committee meeting. 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.

23.2 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

24.1 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](mailto:cmoses@swbno.org) according to Sewerage and Water Board of New Orleans Policy 83(R): Procedural Rules for Bid Appeals.

**END OF SECTION**

LOUISIANA UNIFORM PUBLIC WORK BID FORM

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

BID FOR: Structural and Filter Rehab in the Area of
Sycamore Filter Gallery Filters #19, 20, 25, 26,
& 28

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: Sewerage and Water Board Engineering Department and dated: 6/4/2016

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

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

Dollars (\$ )

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

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

Concrete Work on Sheets S-3 and S-4 of Plans Dollars (\$ )

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

Dollars (\$ )

NOTE TO BIDDERS: (Insert Applicable Notes if Alternates are required)

NAME OF BIDDER:

ADDRESS OF BIDDER:

LOUISIANA CONTRACTOR'S LICENSE NUMBER:

NAME OF AUTHORIZED SIGNATORY OF BIDDER:

TITLE OF AUTHORIZED SIGNATORY OF BIDDER:

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER \*\*:

DATE:

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

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

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

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

# LOUISIANA UNIFORM PUBLIC WORK BID FORM

## UNIT PRICE FORM

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

**BID FOR:** Structural and Filter Rehab  
in the Area of Sycamore Filter Gallery  
Filters #19, 20, 25, 26, & 28

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

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

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Demolition</u>				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
2	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Temporary Shoring</u>				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
3	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Structural Steel</u>				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
4	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Valves</u>				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
5	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Actuators, Tubing, &amp; Accessories</u>				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
6	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Control Table Modifications</u>				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
7	1	Lump Sum		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>All Work on S-3 &amp; S-4: Concrete Topper, Crack Repairs, &amp; Concrete Walkways</u>				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
8	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Removal of Filter Media</u>				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
9	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Installation of New Filter Media</u>				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
10	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Pressure Washing Filter Walls</u>			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
11	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Replace Delery Tubes (Line Item to be Authorized During Construction at Discretion of Engineer)</u>			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
12	1	Allowance	\$80,000	\$80,000

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Screen Doors</u>			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
13	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Steel Saddles</u>			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION ( <i>Quantity times Unit Price</i> )
14	1	Lump Sum		

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

1-2 ADDITIONAL REQUIREMENTS

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 hereby also declare that \_\_\_\_\_ have LOUISIANA CONTRACTOR'S LICENSE in the field of \_\_\_\_\_ with NUMBER \_\_\_\_\_.

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 [ 185 ] 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

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

NAME \_\_\_\_\_ TITLE \_\_\_\_\_

TELEPHONE NO.:  
NORMAL CALLS \_\_\_\_\_

EMERGENCY \_\_\_\_\_

**STATE OF LOUISIANA  
PARISH OF ORLEANS**

**AFFIDAVIT**

**BEFORE ME**, the undersigned authority, duly commissioned and qualified and 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 \_\_\_\_\_ (title) of \_\_\_\_\_ (company);
- 2) He/she has not been convicted of, or has entered a plea of guilty or nolo contendere to any of the crimes, or equivalent federal crimes, listed in Louisiana Revised Statute 38:2227, specifically: public bribery, corrupt influencing, extortion, money laundering, theft, identity theft, theft of a business record, false accounting, issuing worthless checks, bank fraud, forgery, contractors misapplication of payments, malfeasance in office.
- 3) The contracting entity, person or corporation whose principal(s), member(s), and /or Officer(s) have, within the preceding 5 years, not been convicted or plead guilty to, a felony under state or federal statutes, for embezzlement, theft of public funds, bribery, falsification or destruction of public records; (City Code Section 2-8)
- 4) The following is a list of individual partners, incorporators, directors, managers, officers, organizers, or members who have a minimum ten percent interest ownership interest in the bidding entity:  
 \_\_\_\_\_ (name)                      \_\_\_\_\_ (name)  
 \_\_\_\_\_ (name)                      \_\_\_\_\_ (name)  
 \_\_\_\_\_ (name)                      \_\_\_\_\_ (name)
- 5) No other persons hold an ownership interest in the bidding entity via a counter letter.
- 6) None of the above named individual partners, incorporators, directors, managers, officers, organizers, or members, who has a minimum ten percent interest ownership in the bidding entity, been convicted of, or has entered a plea of guilty or nolo contendere to any of the crimes, or equivalent federal crimes, listed in Louisiana Revised Statute 38:2227, specifically: public bribery, corrupt influencing, extortion, money laundering, theft, identity theft, theft of a business record, false accounting, issuing worthless checks, bank fraud, forgery, contractors misapplication of payments, malfeasance in office.
- 7) He/she is not delinquent on any taxes owed the 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 Works Contracts:

- 8) In accord with LA Revised Statute 38:2212.10 the entity represented herein is registered and participates in the "Status verification system" of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324(a), known as the "E-Verify" program to verify that all employees in the State of Louisiana are legal citizens of the United States or are legal aliens.
- 9) The entity represented herein shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.
- 10) The entity represented herein shall require all subcontractors to submit to the contractor a sworn affidavit verifying compliance with the Status verification system.

**WITNESSES:**

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
**AFFIANT**

**SWORN TO AND SUBSCRIBED BEFORE ME ON THIS**

\_\_\_\_\_ **DAY OF** \_\_\_\_\_, 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 bid extension of the award date by up to two (2) thirty (30) day periods in accordance with the provisions of Louisiana Revised Statute, Title 38, Section 2215 (A).

**AGREED:**

---

**NAME OF BIDDER (TYPE OR PRINT)**

---

**SIGNATURE OF BIDDER**

---

**COMPANY NAME**

**\* \* \* END OF SECTION \* \* \***

**BID BOND**

Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable.

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

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 terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

\_\_\_\_\_(Seal)  
Bidder's Name and Corporate Seal

\_\_\_\_\_(Seal)  
Surety's Name and Corporate Seal

By: \_\_\_\_\_  
Signature and Title

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

Attest: \_\_\_\_\_  
Signature and Title

Attest: \_\_\_\_\_  
Signature and Title

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

## 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 Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
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.
10. 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**

**CONVICTED FELON AFFIDAVIT**

STATE OF \_\_\_\_\_

PARISH/COUNTY OF \_\_\_\_\_

Before me, the undersigned authority, came and appeared \_\_\_\_\_,  
who, being first duly sworn, deposed and said that:

1. He/She is the \_\_\_\_\_ and authorized representative of \_\_\_\_\_, hereafter called "Contractor."
2. The Contractor complies with **City Code Section 2-8 (c) for the City of New Orleans.**
3. No Contractor principal, member, or officer has, within the preceding five years, been convicted of, or pled guilty to, a felony under state or federal statutes for embezzlement, theft of public funds, bribery, or falsification or destruction of public records.

\_\_\_\_\_  
Proposer Representative (Signature)

\_\_\_\_\_  
(Print or type

name) (Address)

Sworn to and subscribed before me, in (CITY/STATE) \_\_\_\_\_

This \_\_\_\_ day of (MONTH) \_\_\_\_\_, 20 \_\_\_\_.

\_\_\_\_\_  
Notary  
Public

\_\_\_\_\_  
Notary Identification No./Bar Roll  
No.

**NON-SOLICITATION AFFIDAVIT**

**STATE OF** \_\_\_\_\_

**PARISH/COUNTY OF** \_\_\_\_\_

Before me, the undersigned authority, came and appeared \_\_\_\_\_,

who, being first duly sworn, deposed and said that:

1. He/She is the \_\_\_\_\_ and  
authorized representative of \_\_\_\_\_ hereafter called "Contractor."
  
2. The Contractor has not employed or retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure the subject contract. The Contractor has not paid or agreed to pay any 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 contract.

\_\_\_\_\_  
Contractor Representative (Signature)

\_\_\_\_\_  
(Print or type name) (Address)

\_\_\_\_\_

Sworn to and subscribed before me, in \_\_\_\_\_, Louisiana,

this \_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Notary Identification No./Bar Roll No.

**NON-COLLUSION AFFIDAVIT**

**STATE OF** \_\_\_\_\_

**PARISH/COUNTY OF** \_\_\_\_\_

\_\_\_\_\_, being first duly sworn, deposes and says that:

(1) S/He is (Owner) (Partner) (Office) (Representative) or (Agent), of:

\_\_\_\_\_  
the Proposer that has submitted the attached Proposal:

(2) Such Proposal is genuine and is not a collusive or sham Proposal:

(3) Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees or parties of interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly, or indirectly with any other Proposer, firm or person to submit a collusive or sham proposal in connection with the Contract for which the attached Proposal has been submitted or to refrain from proposing in connection with such contract, or has in any manner, directly or indirectly sought by agreement or collusion or communication or conference with any other Proposer, or to fix any overhead, profit or cost element of the proposal price or the proposal price of any other proposer, or to secure through any advantage against the Sewerage and Water Board of New Orleans of any person interested in the proposed contract; and

(4) The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Proposer or any of its agents, representatives, owners, employees, or parties in interest, including 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 authority, came and appeared \_\_\_\_\_ who, being first duly sworn, deposed and said that:

He/She is \_\_\_\_\_ and authorized representative of \_\_\_\_\_, Hereafter called "Bidder."

The Respondent hereby confirms that a conflict(s) of interest **exists /does not exist/may exist (circle one)** in connection with this solicitation which might impair Respondent's ability to perform if awarded the contract, including any familial or business relationships that the Respondent, the proposed subcontractors, and their principals have with the Board officials or employees.

*(If a conflict(s) of interest exists and/or may exist, describe in a letter the nature of the conflict, the parties involved and why there is a conflict. Attach said letter to this form).*

\_\_\_\_\_  
Respondent Representative (Signature)

\_\_\_\_\_  
(Print or type name)

\_\_\_\_\_  
(Address)

SWORN TO AND SUBSCRIBED BEFORE ME  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20 \_\_\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC (Signature)

\_\_\_\_\_  
NOTARY PUBLIC (Print Name)

Notary ID#/Bar Roll# \_\_\_\_\_

## DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

In accordance with the adoption of Resolution R231-97, the Sewerage and Water Board of New Orleans has established a race and gender-neutral Disadvantaged Business Enterprise (DBE) Plan. The prime contractor shall be required to make a demonstrated good faith effort to award (20)% of the amount of the contract to certified disadvantaged business enterprises as **subcontractors or suppliers performing commercial useful functions which are consistent with the work required on this contract**. The percent participation having been determined for this specific contract by recommendation of the **Construction Review Committee (CRC)**, which is a joint effort of representatives from the City of New Orleans, Sewerage and Water Board, and representatives of local contractor organizations. This percentage requirement shall be considered an informality which is subject to modifications and may be waived or adjusted by the Sewerage and Water Board of New Orleans if the prime contractor, after having demonstrated a good faith effort, is unable to comply with the requirement.

### DEMONSTRATED GOOD FAITH EFFORTS

Before receiving an award of the contract, the contractor must meet the DBE goals or prove that he/she has made a demonstrated good faith efforts. To determine whether a particular contract bidder has made demonstrated good faith efforts to reach the DBE participation goal, the Board and its staff will consider the following:

- a. whether the contractor attended all pre-bid meetings that may have been scheduled by the Board to inform DBE firms of subcontracting opportunities and/or requested the Board Directory of Certified DBE firms;
- b. whether the contractor advertised in general circulation and trade association publications, concerning the DBE subcontracting opportunities, and allowed the subcontractors reasonable time to respond;
- c. whether the contractor provided written notice to a reasonable number of individually named DBE firms and allowed sufficient time for the DBE firms to participate effectively;

- d. whether the contractor followed up initial solicitations of interest by contacting DBEs to determine with certainty whether the DBEs were interested in bidding;
- e. whether the contractor selected specific portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goals (including breaking down contracts into smaller units to facilitate DBE participation);
- f. whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;
- g. whether the contractor negotiated in “good faith” with interested DBEs and did not reject DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities;
- h. if the contractor did reject a DBE as unqualified, the contractor must state his or her reason for doing so in writing;
- i. whether the contractor has used the services of available community organizations and small and/or disadvantaged business groups; local, state and federal small or disadvantage business assistance offices; and other organizations that provide assistance in the recruitment and placement of DBE firms;
- j. whether the contractor has made sufficient efforts to negotiate with DBEs for specific sub-bids, including at a minimum:
  - (1) names, addresses, telephone numbers of DBEs that the contractor contacted,
  - (2) a description of information provided to those DBE firms, and
  - (3) a statement of why additional agreements with DBEs were not reached to include but not limited to proof the DBEs’ price exceeded that of non-DBEs.

1. **Policy:**

It is the policy of the Board that DBE firms, as defined in the Board's Disadvantaged Business Enterprise Plan, shall have the maximum allowable opportunity to compete for the award of the participation in the performance of the Board's publicly bid contracts. Consequently, the CRC and the Board have set the DBE participation goal applicable to this construction contract.

2. **DBE Obligation:**

The Board and its contractors agree to ensure that DBE's, as defined in the Board's Disadvantaged Business Enterprises Plan, shall have the maximum allowable opportunity to compete for the award of the participation in the performance of contracts and subcontracts provided under this agreement. In this regard, contractors shall take all necessary and reasonable steps in accordance with this DBE Plan to ensure that DBE's have the maximum allowable opportunity to compete for such contracts. The Board and its contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of the Board's publicly bid contracts.

3. **Utilization of DBE Vendor Listings:**

All bidders are required to utilize the most recent Sewerage and Water Board State-Local Disadvantaged Business Enterprise Program Approved Vendor Listings for **Construction, Goods & Services/Professional Services**, in their selection of DBE entities to meet DBE participation goals. **Bidders are required to utilize DBE's as subcontractors or suppliers only in the areas for which they are certified. A description of the areas of work that DBE's can provide is contained in these vendor listings.** In addition, an alphabetical list of vendors/contractors is provided indicating the name of the company, address, name of owner, telephone number, fax number, the date the company became certified, and a description of the work that these entities are certified to perform. **Companies that are already certified as a DBE cannot fulfill the DBE requirements by listing themselves as the subcontractor to meet the DBE goal. The prime contractor shall select another DBE from the Sewerage and Water Board's Approved Vendor Listing.**

4. **Contacting DBE's and Obtaining a Firm Price**

All prime contractors are required to contact DBE's and obtain a firm price before listing the DBE's on the Participation Summary Sheet. As confirmation of established contact, bidder will include with their Participation Summary Sheet submission a signed correspondence from the SLDBE subcontractor on their own letterhead that reaffirms negotiated terms such as scope of work and monetary compensation.

5. **Failure to Comply with DBE Bid Specifications:**

**All bidders for this Board contract are hereby notified that failure to comply with the above DBE specifications may constitute the bid as being non-responsive, and sufficient cause for rejection.**

6. **Failure to Carry Out DBE Policy:**

All bidders, potential contractors, or subcontractors for this Board contract are hereby notified that failure to comply with the DBE policy and DBE obligations, set forth above, shall constitute a breach of contract which may result in termination of the contract or such other remedy as deemed appropriate by the Board, to include excluding bidder from bidding on future Board contracts.

7. **Setting Minimum Participation Goals:**

The stated minimum percentage DBE participation goal recommended by CRC and approved by the Board applies to the work of this contract. The two lowest numerical bidders must complete and submit a DBE Participation Summary Sheet no later than three (3) days after the bid opening (excluding Saturdays, Sundays and holidays). The DBE Participation Summary Sheet should be completed properly, showing that at least the percentage goal of the total contract bid price will be subcontracted or otherwise awarded through procurement action to DBE's. Should the bidder fail to comply with this request, the bid shall be considered unresponsive, unless:

- a. An affidavit is furnished by the bidder with its bid showing that the DBE goals cannot be met for the following reasons:

- (1) No DBE firms made offers. Here, it must be shown, documented and demonstrated that good faith efforts (as defined in Part III, D, 2.

of the Board's DBE plan) were made by the bidder to obtain the participation of DBE firms and that they did not respond, or

- (2) The DBE offers made and accepted for subcontract and/or material supplies do not total the stated goal for participation, but total a lesser percentage, and
- (3) The bidder was unable to obtain DBE further participation, despite his or her demonstrated good faith efforts (as defined in Part III, D, 2 of the Board's DBE Plan) to obtain additional participation by DBE firms.

- b. Each of the assertions made by the bidder must be supported by documentary evidence.

**8. Other Clauses Unaffected:**

Nothing contained herein shall invalidate, change, annul, release, restrict, or affect the liability on the bonds or insurance given by the contractor, or the time required for completion of the contract.

**9. Determination of Efforts to Meet Goals:**

Initial determination of bidder efforts to meet the DBE participation goal shall be based on the DBE participation representations submitted by the two lowest numerical bidders no later than three (3) days after the bid opening (excluding Saturdays, Sundays and holidays). Bidders shall submit all the forms required herein no later than three (3) days after the bid opening (excluding Saturdays, Sundays and holidays), and the DBE Office will examine the contents thereof. The Board's DBE Officer may, if deemed advisable, request further information, explanation or justification from any bidder.

**10. Contract Monitoring:**

- a. The Board's DBE Office will monitor contractor during the operation of the contract to insure that the contractor meets all of its DBE obligations as specified in the contract bid. The Board's DBE office shall establish rules and regulations, to be approved by the Board, for the ongoing monitoring of contractor compliance.

- b. Disadvantaged Business Enterprise Program Office personnel or their designated representative shall be allowed to conduct periodic monitoring of contractors' compliance with the agreed to Disadvantaged Business Enterprise Program participation requirements. Contractors shall be required to complete and return to the Disadvantaged Business Enterprise Program Office in the time required all requests for information and data relative to the contractors' activities in meeting the required Disadvantaged Business Enterprise participation goal. Additionally, Disadvantaged Business Enterprise Office personnel or their designated representative shall have access to contractor and subcontractor(s) records pertaining to, but not specifically limited to labor, costs and materials supplied and used on the Board contract, as well as inspection and photocopying of any and all contracts, agreements and correspondence relative to the Disadvantaged Business Enterprise contract participation requirements. Such inspection will be performed during normal business hours, and will be conducted in such a fashion so as to minimize interference with production of the contract. Visits may be made to job sites, as well as to administrative offices of the contractor and subcontractor(s) participants. Such inspection and on-site visits may be scheduled with or without prior notice to the contractor or Disadvantaged Business Enterprise subcontractor participant. Contractors' failure to comply with these monitoring requirements may result in termination of the contract or such other remedy as deemed appropriate by Board.

**11. Maintaining Records:**

Subsequent to the completion of a contract, contractors are required to maintain for three (3) years such records as are necessary to determine compliance with their DBE obligations. During construction, or performance of the DBE obligations, contractors shall submit reports as requested to enable the DBE Office to monitor this compliance.

**12. Umbrella Bonding:**

On contracts where subcontracting exists and where practicable (i.e., when a substantial risk or financial hardship would not be incurred by the prime contractor), the contractor may use an umbrella bond to encompass the DBE firm.

**13. Board Action to Seek Compliance:**

The contractor consents to such appropriate actions taken to ensure that prime contractors and subcontractors comply with the DBE provisions, to include but not limited to:

- a. desk audits to review all material, and information concerning the contractor's compliance;
- b. on-site reviews that may include interviews, visits to project locations, and inspection of documents and/or information not available at the desk audit that pertains to the contractor's compliance;
- c. any additional investigation that may be called for by a lack of proper record keeping, failure of the prime contractor to cooperate; failure of DBEs to cooperate; visible evidence unsatisfactory performance; other evidence as may warrant further investigation.

**14. Non-Compliance Finding:**

The Board staff will make compliance determinations regarding its prime contractors. Documentation of noncompliance will include the specific areas in which the contractors failed to comply. In these instances, appropriate legal action consistent with the DBE and other contract provisions will be taken.

**15. Contractor's Duties**

**a. Record Keeping**

Successful bidders shall establish and maintain records and submit regular reports to the DBE office as required, which will identify and assess progress in achieving DBE subcontract goals and other DBE participation efforts.

**b. Failure To Comply With EDBP Participation Requirements**

Failure to comply with any of the EDBP requirements of this contract shall constitute a violation of the terms and conditions of

this contract and a cause for the termination of the contract at the option of the Board.

**Such violations shall include, but not limited to:**

Failing to meet the percentage participation requirements as set out in the contract documents.

Failing to use certified EDBP contractors/vendors in performing the scope of work as identified in the contract documents (EDBP participation summary sheet).

Failing to comply with the “monitoring of EDBP requirements” included herein as part of the contract, such as contractors:

Failure to submit quarterly report and any other necessary reports timely and adequately as required by the EDBP Office.

Failure to grant access to contractor/subcontractor records by EDBP Office personnel, and

Failure to allow on-site investigations and visits, etc.

Failing to report the removal or termination of a certified EDBP vendor /subcontractor.

Failing to secure authorization for replacement of certified EDBP subcontractors from the Director of the Economically Disadvantaged Business Program.

In Lieu of termination the Board, through the EDBP Office, may impose the following penalties:

Withhold from the contractor in violation up to 10% of all future payments due to the contractor, until such time as the violations have been corrected.

Withhold from the contractor in violation, all future payments until such time as the violations have been corrected.

**c. Subcontract Clause**

All bidders and potential contractors must assure the Board that they will include the above clauses in all agreements, which offer further subcontracting opportunities.

**d. Contract Award**

Bidders are hereby advised that meeting DBE subcontract goals or making a demonstrated good faith efforts to meet such goals are conditions of being awarded and maintaining construction, procurement, or professional services contracts by the Board.

**e. Restrictions on DBE Subcontracting**

No **DBE** subcontractor or vendor selected to perform work as a **DBE** on a Sewerage and Water Board contract will be allowed to subcontract any portion of its work to a Non-Board certified **DBE**, unless the work to be performed is necessary for the execution of the contract and there are no Board certified **DBE**'s available to perform such work.

This process will require that each **DBE** participant performing work on a Sewerage and Water Board funded contract submit a request to subcontract out any portion of work deemed necessary for execution of the contract to the Board's **EDBP** office. On a form provided by the **EDBP** office, the **DBE** contractor or vendor will indicate the dollar amount of work to be subcontracted, the specific scope or nature of the work, the percentage of the total amount of work to be performed by the **DBE** subcontractor and vendor, and the entity to whom the work will be subcontracted.

Both prime and **DBE** subcontractors are advised that the failure to comply with these requirements may result in the loss of **DBE** certification and non-compliance by the prime contractor in meeting **DBE** contractual obligations.

**f. Changes In DBE Participation**

The Prime Contractor will not be allowed to make changes in DBE participation without submittal of a written request explaining

reason, a revised Participation Summary Sheet and approval by the Director of the Economically Disadvantaged Business Program. Failure to comply with these requirements may result in non-compliance by the Prime Contractor in meeting DBE contractual obligations.

#### **16. POLICY TO ENHANCE THE USE OF DBE VENDORS**

All vendors/contractors are encouraged to identify and use S&WB certified **DBE** vendors to the fullest extent possible in major as well as minor purchases of heavy equipment, hardware supplies, etc.

**The Sewerage and Water Board has a long-standing commitment to fairness and equal opportunity in hiring and contracting. As such, the workforce of contractors/vendors is encouraged to be representative of a diverse population. Achievement of the full benefits of diversity will only come when an attitude of inclusion is adopted.**

The Sewerage and Water Board believes that developing such a policy would be a positive step to increase the dollar value of contracts awarded to **DBE** vendors and subcontractors.

#### **17. ACCESS TO APPROVED VENDOR LISTS**

The current listings of Vendors approved by the Sewerage and Water Board are available for use by the bidders on the Sewerage and Water Board external Website, [WWW.SWBNO.ORG](http://WWW.SWBNO.ORG).

# ECONOMICALLY DISADVANTAGED BUSINESS PARTICIPATION SUMMARY SHEET

Minimum Percentage Goal Participation for this Contract is 20 %

**Contract Name and #**    Contract 1452 – Structural and Filter Rehabilitation of Sycamore Filter Gallery

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

**THIS FORM MUST BE COMPLETED AND SUBMITTED BY THE TWO LOWEST NUMERICAL BIDDERS, ALONG WITH CORRESPONDENCE FROM SLDBE(S) ON THEIR OWN LETTERHEAD REAFFIRMING NEGOTIATED TERMS, NO LATER THAN 3 DAYS AFTER THE BID OPENING (EXCLUSIVE OF SATURDAYS, SUNDAYS AND HOLIDAYS). FAILURE TO DO SO WILL RENDER THE BID NON-RESPONSIVE.**  
 BY SUBMITTAL OF THIS FORM, PRIME CONTRACTOR ACKNOWLEDGES THAT DBE(S) HAVE BEEN CONTACTED AND A FIRM PRICE HAS BEEN OBTAINED.

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

Prime Name: \_\_\_\_\_  
Print Name

Prime Company's Name: \_\_\_\_\_

Prime Address: \_\_\_\_\_  
 \_\_\_\_\_

Prime Signature: \_\_\_\_\_  
Signature

Date: \_\_\_\_\_

E-mail: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

## 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. Temporary shoring, demolition, and replacement of steel structural members
- 1.1.2. Demolition and replacement of filter valves
- 1.1.3. Demolition and replacement of filter valve actuators and associated piping and tubing
- 1.1.4. Control table modifications
- 1.1.5. Removal and Installation of Filter Media
- 1.1.6. Rehabilitation of catwalks and concrete walkway]

### 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 [ Sewerage and Water Board of New Orleans ] (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 [ 185 ] 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 [ 185 ] 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 [ 26 ] sheets with each sheet bearing the following general title: [ **“ Structural and Filter Rehabilitation at the Sycamore Filter Gallery ”.**]

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.

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.

This Agreement will be effective on \_\_\_\_\_, 20\_\_ (which is the Effective Date of the Agreement).

OWNER: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

[CORPORATE SEAL]

[CORPORATE SEAL]

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address for giving notices:

Address for giving notices:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

License No. \_\_\_\_\_  
(Where applicable)

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**

## PERFORMANCE BOND FORM

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR  
(Name and Address):

SURETY  
(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

Company:  
Signature: \_\_\_\_\_ (Seal)  
Name and Title

### SURETY

\_\_\_\_\_  
Surety's Name and Corporate Seal

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: \_\_\_\_\_  
Signature and Title

### CONTRACTOR AS PRINCIPAL

Company:  
Signature: \_\_\_\_\_ (Seal)

### SURETY

\_\_\_\_\_  
(Seal)

NEW ORLEANS MASTER 469936

Name and Title

Surety's Name and Corporate Seal

By: \_\_\_\_\_

Signature and Title

(Attach Power of Attorney)

Attest: \_\_\_\_\_

Signature and Title

NEW ORLEANS MASTER 469936

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 non-performance 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)
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**END OF SECTION**

# GENERAL CONDITIONS

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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.

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**ARTICLE 2 – PRELIMINARY MATTERS**

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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**

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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); or

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 in Paragraph 4.03.A; and

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

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

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

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or 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. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and

shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* 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 whom Contractor is responsible creates a Hazardous

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

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### *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 so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

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

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

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

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to

Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

**ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES**

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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 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:
  - 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 Paragraph 6.05.A.2.

*C. Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by 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 entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

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

2. shall 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.

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 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 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 to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

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

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

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

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

## **ARTICLE 7 – OTHER WORK AT THE SITE**

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### **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 and other contractors.

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

### **7.02 *Coordination***

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

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

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

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

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

### **7.03 *Legal Relationships***

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

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

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### **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**

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9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

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

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but

without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

#### 9.03 *Project Representative*

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

#### 9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 9.05 *Rejecting Defective Work*

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

#### 9.06 *Shop Drawings, Change Orders and Payments*

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

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

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

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

#### 9.07 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

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

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

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor 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 Engineer allows additional time).

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

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

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

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

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

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

### **ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

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#### 11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall 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, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

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

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

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

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

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

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

#### 11.02 Allowances

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

B. *Cash Allowances:*

1. Contractor agrees that:

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

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

C. *Contingency Allowance:*

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

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

#### 11.03 Unit Price Work

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

estimated quantity of each item as indicated in the Agreement.

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

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

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

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

2. there is no corresponding adjustment with respect 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**

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#### 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 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 all necessary labor, material, and equipment.

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

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

#### 13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

#### 13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of 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 be satisfactory to Owner.

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

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

#### B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations 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 payment;
- c. a list of all Claims against Owner that Contractor believes are unsettled; and
- d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien

rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner 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**

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### 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 General Conditions.

## 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.C. The following reports of explorations and tests of subsurface conditions at or contiguous to the Site are known to Owner:

**4.02.C.1. [\_\_\_\_]**

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. [REDACTED]

5.04.B.1.d. [REDACTED]

5.04.B.1.e. [REDACTED].

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 \$1,000,000 each accident for bodily injury by accident and \$1,000,000 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 \$1,000,000 each occurrence and not less than \$2,000,000 general annual aggregate, including Explosion, Collapse,

and Underground Property Damage Hazards. The Products-Completed Operations aggregate limit shall not be less than \$1,000,000 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 \$1,000,000 each Claim, with at least a \$2,000,000 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 sub-contractors 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 tag-out 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 removed.

**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](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 Work by 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 prior to use.

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*: In the event Contractor submits request for additional compensation as a result of a change or differing Site conditions, or as a result of delays, acceleration, or loss of productivity, **Owner reserves right, upon written request, to audit and inspect Contractor's books and records relating to the Project.** Upon written request for an audit, Contractor shall make its books and records available within 14 days of request. Owner shall specifically designate

identity of auditor. As part of audit, Contractor shall make available its books and records relating to the Project, including but not limited to Bidding Documents, cost reports, payroll records, material invoices, subcontracts, purchase orders, daily timesheets, and daily diaries. Audit shall be limited to those cost items which are sought by Contractor in a change order or claim submission to Owner.

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 Contractor 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.

**END OF SECTION**

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:

Drug-Free Workplace Policy  
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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:

	<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 values shall be used for the following drugs:

	<u>Confirmatory Test Level (ng/ml)</u>
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	
** Benzoyllecgonine	

Drug-Free Workplace Policy  
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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 tag-out 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 which the signee works for.
  - b) Senior representative of the plant, station, facility in which the tag-out 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) Electrical 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 them 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 tag-out 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 contaminants, 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](mailto: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.
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

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 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.
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..

**ATTACHMENT 5  
WAGE RATES**

The contractor shall abide by the Davis-Bacon Act Wage Decision. The Wage Decisions applicable to SWB Construction may be LA7, LA11, LA12, or LA45.

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

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Contract description.
2. Work by Owner or other Work at the Site.
3. Scope
4. Contractor's use of Site.
5. Work sequence.
6. Specification conventions.

1.2 CONTRACT DESCRIPTION

- A. Work of the Project includes construction and repairs to the Sycamore Filter Gallery Filters 19, 20, 25, 26 and 28 at the Carrollton Water Plant of the Sewerage & Water Board of New Orleans.
- B. Perform Work of Contract under fixed cost Contract with Owner according to Conditions of Contract.

1.3 WORK BY OWNER OR OTHERS

- A. Owner has awarded contracts for with the West Power Complex and associated utility rack. The rack will run alongside Panola Street and cross Eagle. Coordination/sharing with other contractors including but not limited to laydown areas and parking should be expected.
- B. If Owner-awarded contracts interfere with each other due to work being performed at the same time or at the same Site, Owner will determine the sequence of work under all contracts according to "Work Sequence" and "Contractor's Use of Site" Articles in this Section.
- C. Coordinate Work with utilities of Owner. Any request to interrupt the operation of the filter gallery shall be submitted to and approved by the Owner.

1.4 SCOPE

A. Work under this Contract includes:

1. Structural Work:
  - a. Temporary Shoring:
    - 1) Pipe support. Treated water piping shall be temporarily supported during any U-bolt replacement Supports and/or cradles shall be lined with flexible

coating or materials to avoid creating pressure points on piping. No two consecutive bents can have their U-bolts replaced simultaneously.

- b. Demolition of existing:
    - 1) U-bolts that support treated water piping
    - 2) Walkway beams that attach to the columns
    - 3) Beams that are embedded in and support the concrete deck will remain.
    - 4) U-bolts
    - 5) Disconnect and temporarily support piping and tubing that is currently attached to existing structural members.
    - 6) Concrete walkways marked for demolition.
    - 7) Any hangers or members to be replaced on the drawings.
    - 8) Chipped and broken concrete topper called out in the construction drawings.
  - c. Installation of:
    - 1) Beams
    - 2) U-bolts
    - 3) Reinstallation of salvaged cradles where deemed feasible
    - 4) Catwalks and other structures that existed previously at no additional cost to owner
    - 5) Exterior steel walkways
    - 6) Concrete repair of walkways
    - 7) Concrete toppers
    - 8) Screen doors
  - d. Additional elements shall be provided as required:
    - 1) Connections between columns and beams
    - 2) Braces to support new construction as required
    - 3) Restore piping and other elements that were originally attached to existing columns and beams.
2. Temporary Shoring
    - a. (See Temporary Shoring Specification)
  3. Valve and Piping Work:
    - a. Temporary pipe blockages:
      - 1) The Treated Water pipe is continuously in use and must remain so to feed Filters 11 through 20 and Filters #25 through #28. Temporary inflatable blocks or other means acceptable to the Owner shall be installed at key locations in the existing piping to isolate filter bays and to replace treated water valves.
      - 2) The Washwater pipe is filled when any filter in the gallery is backwashed. Contractor may coordinate outages with the Owner's operations personnel to allow up to four days to pass without backwashing filters. Contractor shall have the option to install temporary blocks in Washwater piping or its branches to allow Contractor's work to proceed without backwash coordination.
      - 3) The drainpipe becomes partially filled whenever filters are backwashed and may hold water continuously between backwash cycles. Contractor may coordinate outages with the Owner's operations personnel to allow up to four days to pass without backwashing filters. Contractor shall have the

- option to install temporary blocks in Drain piping or its branches to allow their work to proceed without backwash coordination.
- 4) Contractor shall work around the clock during periods when filter backwashing is suspended, and Contractor shall allow the resumption of backwash operations as soon as possible.
- b. Washwater Valves and Actuators:
- 1) Remove existing washwater valves and actuators for filters 19, 20, 25, 26, and 28.
  - 2) Existing valves are 24" wafer-style butterfly valves.
  - 3) Replace valves in kind.
  - 4) Demolish existing water-operated actuators and associated piping.
  - 5) Provide air-operated actuators per specification.
  - 6) Install stainless steel air lines to new actuators.
  - 7) Adapt existing filter tables 19, 20, 25, 26 and 28 to operate new actuators.
- c. Treated Water and Filtered Water Valves and Actuators:
- 1) Remove existing treated and filtered water valves and actuators for filters 19, 20, 25, 26, and 28.
  - 2) Existing valves are 20" wafer-style butterfly valves.
  - 3) Replace valves in kind.
  - 4) Demolish existing water-operated actuators and associated piping.
  - 5) Provide air-operated actuators per specification.
  - 6) Install stainless steel air lines to new actuators.
  - 7) Adapt existing filter tables 19, 20, 25, 26 and 28 to operate new actuators.
- d. Drain Valves and Actuators:
- 1) Remove existing drain valves and actuators for filters 19, 20, 25, 26, and 28. There are two valves per filter bay.
  - 2) Existing valves that connect to the drain line at the wye fitting are 30" wafer-style butterfly valves.
  - 3) Existing valves that connect to the underdrain line downstream of the washwater tee are 20" wafer-style butterfly valves.
  - 4) Replace valves in kind.
  - 5) Demolish existing water-operated actuators and associated piping.
  - 6) Provide air-operated actuators per specification
  - 7) Install stainless steel air lines to new actuators
  - 8) Adapt existing filter tables 19, 20, 25, 26, and 28 to operate new actuators.
- e. Filter to Waste Valves
- 1) Filter to waste valves to be used to drain the water when backwashing filter media during installation
  - 2) Install temporary air tubing as necessary to operate filter to waste valves
  - 3) Provide pumps as necessary to de-water filter gallery bottom when backwashing filter media or connect filter to waste to drain header using spool piece
- f. Filter 24 faulty operator
- 1) Inspect valve actuator at Filter #24. Inspection to be performed by actuator vendor/manufacture.

## Sycamore Filter Gallery Structural and Filter Rehabilitation

- 2) Remove cover of actuator or remove actuator from top of valve gearbox as necessary to further inspect faulty operation
4. Filter Media Replacement:
  - a. Remove and replace filter media in filters bays #19, 20, 25, 26 and 28 per specification.
  - b. All filters have Delery Tubes. Refer to Section 3 for the specification to remove, clean, and reinstall the Delery Tubes.
  - c. If any existing Delery Tube is deemed by the Owner to be unserviceable through no fault of the Contractor, the Contractor shall furnish, punch, and install new Delery Tubes on a force account basis and be paid from the allowance established by Bid Item #12. Any Delery Tube that is deemed by the Owner to be unserviceable through the Contractor's fault shall be removed, replaced, punched, and installed by the Contractor at his expense. Wherever possible, Owner may elect to repair Delery Tubes that have been deemed unserviceable through no fault of the Contractor.
5. Screen Doors
  - a. Furnish and install screen doors at the locations called out in the drawing set. This includes but is not limited to all hardware such as cane bolts, handles, knobs and screens as well as some framing such as required sills, jambs and water deflectors. Some modifications of the existing doors and jambs may be required.
6. Lead Based Paint
  - a. The Contractor is hereby advised that lead-based paint is present in the work area. Attached to these specifications is a report that identified the locations and other characteristics of the paint. The Contractor shall develop his own plan to work in this area and to properly address issues that arise from the presence of lead-based paint to include, but not be limited to, encapsulation, remediation, removal, disposal, and protection of personnel, as appropriate for the location and element of work to be accomplished. Provide a written plan to the Owner prior to commencing work.

### 1.5 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Limit use of Site and premises to allow:
  1. Owner occupancy.
  2. Work by Owner.
  3. Work by Others.
- B. Emergency Building Exits shall remain accessible during Construction.
- C. Time Restrictions for Performing Work: Contractor may schedule 24-hour operations at his discretion. 24-hour operations are mandatory during periods when filter backwashing is suspended at the Contractor's request.
- D. Outages and Shutdown of Filter Gallery Operations:

## Sycamore Filter Gallery Structural and Filter Rehabilitation

1. The Filter Gallery will produce drinking water for the City of New Orleans throughout the construction period, however, the backwashing operations may be suspended for up to four days with proper coordination and scheduling.
2. At least one week before each scheduled outage, submit Outage Request Plan to Owner itemizing the dates, times, and duration of each requested outage.

### 1.6 WORK SEQUENCE

- A. Construct Work in stages during construction period. This is not an exclusive list of the work to be done. Coordinate construction schedule and operations with Owner:
  1. Stage 1: Structural shoring of existing piping.  
Stage 1a: Removing vegetation from troughs, covering troughs, concrete walkway repairs, pressure washing filter walls, remove filter media each layer individually starting with top layer.
  2. Stage 2: Removing and replacing U-bolts and hangers.
  3. Stage 3: Replacing valves and actuators.
  4. Stage 4: Filter media replacement.
  5. Sequencing of work stages:
    - a. Stage 2 work may proceed in an area upon accomplishment of Stage 1 work in that area.
    - b. Stage 3 work may proceed in an area upon accomplishment of Stage 2 work in that area, except where approved by Owner.
    - c. Stage 4 work may proceed upon accomplishment of Stage 3. This work shall be coordinated with the work of the other three stages.
- B. Sequencing of Construction Plan: Before start of construction, submit three copies of construction plan regarding phasing of and new Work for acceptance by Owner. After acceptance of plan, construction sequencing shall comply with accepted plan unless deviations are accepted by Owner in writing.

### 1.7 SPECIFICATION CONVENTIONS

- A. These Specifications are written in imperative mood and streamlined form. This imperative language is directed to Contractor unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 011000

SECTION 01 – TEMPORARY SHORING AND DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. See Drawings labeled “Contract 1452 Structural & Filter Rehab In The Area of Sycamore Filter Gallery SFG Filters #19, 20, 25, 26 and 28”.

1.2 SUMMARY

- A. Section Includes:

- 1. Limitations On Temporary Shoring
- 2. Submittals
- 3. Preinstallation Meetings
- 4. Protection
- 5. Selective Demolition

1.3 Limitations On Temporary Shoring:

- a. The Contractor shall be responsible for the design, installation, and removal of all temporary shoring.
- b. Shoring Members Bearing on Concrete Floor
  - 1) The record drawings of the Sycamore Gallery are provided to the Contractor. If the Contractor desires to base temporary shoring on this floor between column pedestals, he shall provide his calculations that demonstrate the adequacy of the existing floor to support the loads to the Owner for approval prior to installing the shoring.
- c. Shoring Members Attached to Concrete Walls
  - 1) The concrete walls that bound that bound the east and west sides of the work area in the vicinity of filters 11 through 17, are available for use to support temporary shoring.
  - 2) The maximum anchor size shall be 3/4” and maximum embedment into the wall shall be limited to 8”
  - 3) Holes for anchors attached to concrete walls shall be drilled using rotation only. The rotation-plus-impact capability of a hammer drill shall not be used.
  - 4) Anchors shall be Type 304 Stainless Steel and shall be anchored with Simpson ET-HP epoxy adhesive or approved equal.
  - 5) Expansion-type anchors are strictly prohibited.
  - 6) The Contractor shall provide calculations for his anchor design for approval by Owner prior to installing anchors. The calculations shall include consideration of combined shear and tension on each anchor.

## Sycamore Filter Gallery Emergency Repairs

- 7) All anchors embedded in concrete walls shall be cut off flush with the surface of the concrete unless the Owner requests that specific anchors remain.
  - 8) The Contractor is hereby notified that each concrete wall forms part of a filter bay and that the far side of all walls is flooded.
- d. Shoring Members Attached to Existing Concrete Pedestals
- 1) The existing concrete pedestals are available to support temporary shoring.
  - 2) Structural members attached to existing pedestals shall be designed such that the pedestals are not subjected to a lateral load or a moment.
  - 3) Shoring members attached to the faces of the pedestals shall be symmetrically attached to opposite faces. Eccentric loads on pedestals are prohibited.
  - 4) If embedded anchors are used in conjunction with temporary shoring, the maximum anchor size shall be 5/8", and the maximum embedment shall be 5". Anchors shall be arranged such that they do not conflict with existing or new anchor bolts or each other.
  - 5) Holes for anchors attached to concrete pedestals shall be drilled using rotation only. The rotation-plus-impact capability of a hammer drill shall not be used.
  - 6) Anchors shall be Type 304 Stainless Steel and shall be anchored with Simpson ET-HP epoxy adhesive or approved equal.
  - 7) Expansion-type anchors are strictly prohibited.
  - 8) The Contractor shall provide calculations for his anchor design for approval by Owner prior to installing anchors. The calculations shall include consideration of combined shear and tension on each anchor.
  - 9) Shoring members attached to pedestals shall be removed when shoring is no longer required. Anchor bolts embedded in pedestals shall be ground off flush with the surface of the concrete.

### 1.4 SUBMITTALS

A. Product Data: For each type of product.

B. Design Submittals:

1. All shoring design submittals shall be sealed by an engineer licensed in Louisiana.
2. Include a shoring site plan that includes horizontal and vertical dimensions of each vertical and horizontal shoring member
3. Include dimensioned, bent-specific details that avoid clashes of existing permanent structure or piping.
4. Include dimensioned connection details.

C. Shop Drawings: Show fabrication of structural-steel components.

1. Include details of cuts, connections, splices, cambers, holes, and other pertinent data.
2. Include embedment Drawings.
3. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.

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4. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pretensioned and slip-critical, high-strength bolted connections.

### D. Demolition Plan

1. Provide a demolition plan and schedule.

## 1.5 PREINSTALLATION MEETINGS

- A. Pre-installation Conference: Conduct conference at the Carrollton Water Plant and invite Owner's Project Manager.

## 1.6 PROTECTION

- A. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
  1. Strengthen or add new supports when required during progress of selective demolition.
- B. Remove temporary barricades and protections where hazards no longer exist.

## 1.7 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
  2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
  3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
  5. Maintain fire watch during and for at least 1 hour after flame-cutting operations.
  6. Maintain adequate ventilation when using cutting torches.
  7. Remove the following from defined construction area per drawings; Decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
  8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.

Sycamore Filter Gallery Emergency Repairs

9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
10. Dispose off-site of demolished items and materials promptly and comply with all local, state and federal laws.

END OF SECTION 00001

## SECTION 02 - STRUCTURAL STEEL FRAMING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. See Drawings labeled "Contract 1452 Structural & Filter Rehab In The Area of Sycamore Filter Gallery SFG Filters #19, 20, 25, 26 and 28".

- B. SUMMARY

- C. Section Includes:

1. Structural steel.
2. Field-installed shear connectors.
3. Grout.

#### 1.2 DEFINITIONS

- A. Structural Steel: Elements of the structural frame indicated on Drawings and as described in AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."

#### 1.3 COORDINATION

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.
- B. Coordinate installation of anchorage items to be embedded in or attached to other construction without delaying the Work. Provide setting diagrams, sheet metal templates, instructions, and directions for installation.

#### 1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Carrollton Water Plant and invite Owner's Project Manager.

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Show fabrication of structural-steel components.
  1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
  2. Include embedment Drawings.

## Sycamore Filter Gallery Repairs

3. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.
- C. Delegated-Design Submittal: For structural-steel connections indicated to comply with design loads, include analysis data signed and sealed by the licensed professional engineer responsible for their preparation.

### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer, fabricator, professional engineer, testing agency.
- B. Welding certificates.
- C. Mill test reports for structural steel, including chemical and physical properties.
- D. Product Test Reports: For the following:
1. Bolts, nuts, and washers including mechanical properties and chemical analysis.
  2. Direct-tension indicators.
  3. Tension-control, high-strength, bolt-nut-washer assemblies.
  4. Shear stud connectors.
  5. Shop primers.
  6. Nonshrink grout.
- E. Survey of existing conditions.
- F. Source quality-control reports.
- G. Field quality-control reports.

### 1.7 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
1. Welders and welding operators performing work on bottom-flange, demand-critical welds shall pass the supplemental welder qualification testing, as required by AWS D1.8/D1.8M. FCAW-S and FCAW-G shall be considered separate processes for welding personnel qualification.
- B. Comply with applicable provisions of the following specifications and documents:
1. AISC 303.
  2. AISC 360.
  3. RCSC's "Specification for Structural Joints Using ASTM A 325 Bolts."

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to permit easy access for inspection and identification. Keep steel members off ground and spaced by using pallets, dunnage, or other supports and spacers. Protect steel members and packaged materials from corrosion and deterioration.
  - 1. Do not store materials on structure in a manner that might cause distortion, damage, or overload to members or supporting structures. Repair or replace damaged materials or structures as directed.
- B. Store fasteners in a protected place in sealed containers with manufacturer's labels intact.
  - 1. Clean and relubricate bolts and nuts that become dry or rusty before use.

PART 2 - PRODUCTS

2.1 STRUCTURAL-STEEL MATERIALS

- A. W-Shapes: ASTM A 992/A 992M.
- B. Channels, Angles-Shapes: ASTM A 36/A 36M .
- C. Plate and Bar: ASTM A 36/A 36M.
- D. Welding Electrodes: Comply with AWS requirements.
- E. All fabricated components shall be hot dip galvanized after fabrication per Paragraph 2.6.

2.2 BOLTS, CONNECTORS, AND ANCHORS

- A. Zinc-Coated High-Strength Bolts, Nuts, and Washers: ASTM A 325, Type 1, heavy-hex steel structural bolts; ASTM A 563, Grade DH heavy-hex carbon-steel nuts; and ASTM F 436, Type 1, hardened carbon-steel washers.
  - 1. Finish: Hot-dip zinc coating.
- B. Shear Connectors: ASTM A 108, Grades 1015 through 1020, headed-stud type, cold-finished carbon steel; AWS D1.1/D1.1M, Type B.
- C. Unheaded Anchor Rods: ASTM F 1554, Grade 55, weldable.
  - 1. Configuration: Straight.
  - 2. Nuts: ASTM A 563 heavy hex carbon steel.
  - 3. Plate Washers: ASTM A 36/A 36M carbon steel.
  - 4. Washers: ASTM F 436, Type 1, hardened carbon steel.
  - 5. Finish: Hot-dip zinc coating, ASTM A 153/A 153M, Class C.
- D. Threaded Rods: ASTM A 36.
  - 1. Nuts: ASTM A 563 heavy-hex carbon steel.

## Sycamore Filter Gallery Repairs

2. Washers: ASTM F 436, Type 1, hardened carbon steel.
3. Finish: Hot-dip zinc coating, ASTM A 153, Class C.

- E. Threaded Rods for anchorage into concrete walls:
1. Type 304 Stainless Steel

### 2.3 GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive and nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

### 2.4 FABRICATION

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate according to AISC 303, "Code of Standard Practice for Steel Buildings and Bridges," and to AISC 360.
1. Camber structural-steel members where indicated.
  2. Fabricate beams with rolling camber up.
  3. Identify high-strength structural steel according to ASTM A 6/A 6M and maintain markings until structural steel has been erected.
  4. Mark and match-mark materials for field assembly.
  5. Complete structural-steel assemblies, including welding of units, before starting shop-priming operations.
- B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.
1. Plane thermally cut edges to be welded to comply with requirements in AWS D1.1/D1.1M.
- C. Bolt Holes: Cut, drill, or punch standard bolt holes perpendicular to metal surfaces. Thermal cutting of holes is not acceptable.
- D. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.
- E. Shear Connectors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Use automatic end welding of headed-stud shear connectors according to AWS D1.1/D1.1M and manufacturer's written instructions.
- F. Holes: Provide holes required for securing other work to structural steel and for other work to pass through steel members.
1. Cut, drill, or punch holes perpendicular to steel surfaces. Do not thermally cut bolt holes or enlarge holes by burning.
  2. Baseplate Holes: Cut, drill, mechanically thermal cut, or punch holes perpendicular to steel surfaces.
  3. Weld threaded nuts to framing and other specialty items indicated to receive other work.

## 2.5 SHOP CONNECTIONS

- A. High-Strength Bolts: Shop install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 Bolts" for type of bolt and type of joint specified.
  - 1. Joint Type: Snug tightened.
- B. Weld Connections: Comply with AWS D1.1 for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
  - 1. Assemble and weld built-up sections by methods that maintain true alignment of axes without exceeding tolerances in AISC 303 for mill material.

## 2.6 GALVANIZING

- A. Hot-Dip Galvanized Finish: Apply zinc coating by the hot-dip process to structural steel, including U-bolts, according to ASTM A 123/A 123M.
  - 1. Fill vent and drain holes that are exposed in the finished Work unless they function as weep holes, by plugging with zinc solder and filing off smooth.

## 2.7 SOURCE QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform shop tests and inspections as the Owner deems necessary and proper.
  - 1. Provide testing agency with access to places where structural-steel work is being fabricated or produced to perform tests and inspections.
- B. Bolted Connections: Inspection of shop-bolted connections will be according to RCSC's "Specification for Structural Joints Using ASTM A 325 Bolts."
- C. Welded Connections: Visual inspection of shop-welded connections will be according to AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
  - 1. Liquid Penetrant Inspection: ASTM E 165.
  - 2. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration are not accepted.
  - 3. Ultrasonic Inspection: ASTM E 164.
  - 4. Radiographic Inspection: ASTM E 94.
- D. Provide test and inspection reports to the Owner.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify, with certified steel erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments for compliance with requirements.
  - 1. Prepare a certified survey of existing conditions. Include bearing surfaces, anchor rods, bearing plates, and other embedments showing dimensions, locations, angles, and elevations.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent structural steel, connections, and bracing are in place unless otherwise indicated.
  - 1. Do not remove temporary shoring supporting composite deck construction until cast-in-place concrete has attained its design compressive strength.

### 3.3 ERECTION

- A. Set structural steel accurately in locations and to elevations indicated and according to AISC 303 and AISC 360.
- B. Baseplates Bearing Plates and Leveling Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials and roughen surfaces prior to setting plates. Clean bottom surface of plates.
  - 1. Set plates for structural members on wedges, shims, or setting nuts as required.
  - 2. Weld plate washers to top of baseplate.
  - 3. Snug-tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
  - 4. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.
- C. Maintain erection tolerances of structural steel within AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."
- D. Align and adjust various members that form part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that are in permanent contact with members. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.

## Sycamore Filter Gallery Repairs

1. Level and plumb individual members of structure.
  2. Make allowances for difference between temperature at time of erection and mean temperature when structure is completed and in service.
- E. Splice members only where indicated.
- F. Do not use thermal cutting during erection unless approved by Owner. Finish thermally cut sections within smoothness limits in AWS D1.1/D1.1M.
- G. Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.
- H. Shear Connectors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Use automatic end welding of headed-stud shear connectors according to AWS D1.1/D1.1M and manufacturer's written instructions.

### 3.4 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 Bolts" for type of bolt and type of joint specified.
1. Joint Type: Snug tightened.
- B. Weld Connections: Field welded connections are not specified. The Contractor may propose field-welded connections in his shop drawings. Such connections shall be specifically and conspicuously called out on shop drawings for Owner approval. Where field-welded connections are proposed and approved, comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
1. Comply with AISC 303 and AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.
  2. Remove backing bars or runoff tabs, back gouge, and grind steel smooth.
  3. Assemble and weld built-up sections by methods that maintain true alignment of axes without exceeding tolerances in AISC 303, "Code of Standard Practice for Steel Buildings and Bridges," for mill material.

### 3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections as Owner deems necessary and proper.
- B. Bolted Connections: Inspection of bolted connections will be according to RCSC's "Specification for Structural Joints Using ASTM A 325 Bolts."
- C. Welded Connections: Visual inspection of field welds will be according to AWS D1.1/D1.1M.
1. In addition to visual inspection, field welds will be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:

## Sycamore Filter Gallery Repairs

- a. Liquid Penetrant Inspection: ASTM E 165.
  - b. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration are not accepted.
  - c. Ultrasonic Inspection: ASTM E 164.
  - d. Radiographic Inspection: ASTM E 94.
- D. In addition to visual inspection, field-welded shear connectors will be tested and inspected according to requirements in AWS D1.1/D1.1M for stud welding and as follows:
1. Perform bend tests if visual inspections reveal either a less-than-continuous 360-degree flash or welding repairs to any shear connector.
  2. Conduct tests according to requirements in AWS D1.1/D1.1M on additional shear connectors if weld fracture occurs on shear connectors already tested.

### 3.6 REPAIRS AND PROTECTION

- A. Galvanized Surfaces: Clean areas where galvanizing is damaged or missing and repair galvanizing to comply with ASTM A 780/A 780M.
- B. Touchup Painting: Immediately after erection, clean exposed areas where primer is damaged or missing and paint with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
  1. Clean and prepare surfaces by SSPC-SP 2 hand-tool cleaning or SSPC-SP 3 power-tool cleaning.

END OF SECTION 02

## SECTION 3

### DESCRIPTION OF WORK FOR FILTERS NO. 19, 20, 25, 26 AND 28

#### 3-01 GENERAL DESCRIPTION

- A. The purpose of this section of the contract is to rehabilitate Filters No. 19, 20, 25, 26 and 28 located in the Sycamore Filter Gallery. The work includes but is not limited to the following items of work. Note that all filters have a Delery Tube design.
1. Removal and disposal of the used filter sand and gravel.
  2. Removing and cleaning copper tubes and cleaning filter basin.
  3. Reinstallation of cleaned tubes. Replace damaged tubes as needed.
  4. Installation of the layered gravel filter bed. The gravel shall be furnished, wet screened, and installed by the Contractor.
  5. Installation of the sand filter bed. The sand shall be furnished and installed by the Contractor.
  6. Realignment of stainless-steel weir plates.
  7. Backwashing filters when the sand bed has been installed and skimming twice to remove a 1-inch layer of sand per skim.
  8. Installing the anthracite filter bed. The anthracite shall be furnished and installed by the Contractor.
- B. It is the intent of the Owner to follow requirements of AWWA Specification #B100-09, Standard for Filtering Material except where Specifically noted herein.

#### 3-02 CONDITIONS AT SITE

- A. The Contractor's working area at the filters and filter gallery shall be strictly limited. He shall not be allowed to transport sand, gravel, concrete, or other material, or run hoses through the filter building. It shall be the Contractor's responsibility to build a temporary ramp or devise other means subject to the approval of the Owner to move men and materials from grade level to the deck.

- B. The Contractor may use hand-powered vehicles or motorized stationary Equipment subject to the approval of the Owner to move materials from the colonnade area to the filters. Motorized vehicles shall not be allowed in this area.

### 3-03 REMOVING USED FILTER SAND AND GRAVEL

Used filter media composed of mixed grades of gravel and sand shall be removed from filters. The used media may be cemented together and require the use of a pneumatic hammer to break it apart. The Contractor shall use care and caution in removing the spent media from all filters not to damage the copper Delery Tubes.

Wash water troughs and openings to center passages shall be covered with Plywood in a manner that completely blocks the entrance of gravel or sand into the troughs or center passages from any direction. The used media becomes the Contractor's property and shall be removed from the plant site.

### 3-04 CLEANING FILTERS PRIOR TO PLACING NEW SAND AND GRAVEL

- A. Contractor shall remove all used filter sand and gravel using extreme caution.
- B. Contractor shall carefully remove all existing Delery Tubes.
- C. Contractor shall "Vacuum Clean" filter floors clean before placing new filter gravel in filters.
- D. After cleaning of the filter bed floor by the Contractor, the Owner will introduce water into the filter box and drain through the filter to waste valve into the filter pipe gallery. This will be done prior to placing of the Delery filter tubes.
- E. Prior to replacing Delery Tubes, the Contractor shall also flush out any debris in the filter wall holes where Delery Tubes were removed. Flushing shall be accomplished by use of a 2½" hose provided by the Owner and shall be coordinated with Sewerage and Water Board workmen.

Note: When removing filter media, it is recommended that ALL SAND be Removed first in the filter and then the gravel shall be removed. Removal of all sand first will prevent sand from building up in underdrain pipe.

### 3-05 EXISTING DELERY FILTER TUBES

- A. The existing Delery filter tubes shall all be removed and cleaned in each filter. There are a total of 106 tubes in each filter. 53 tubes in each filter half. The Contractor shall use extreme caution when

removing filter gravel directly over the Delery Tubes.

- B. If the Contractor punctures a hole in the Delery Tube, the Contractor shall replace the damaged tube with a new tube furnished by him. Removal of the damaged tube and the punching and installation of the new tube shall be done at the Contractor's expense.
  - C. Should any tube be determined unserviceable by the Owner through no fault of the Contractor, the Contractor shall furnish, punch, and install a new tube on a force account basis paid for under the allowance in Bid Item #11.
  - D. The Contractor shall punch all tubes as directed by the Owner.
  - E. All Delery Tubes that are damaged shall remain the property of the Owner.
- 3-06 PUNCHING THE NEW COPPER FILTER TUBES THAT ARE REPLACING DAMAGED TUBES

The new copper filter tubes will be delivered by the Contractor to the grounds of The Main Plant. He shall punch these as shown on the drawings using the Owner's punching machine. New copper blanks and end caps shall be furnished by the Contractor along with the tubes. The Contractor shall cut the new copper tubes to size and solder the end caps onto them by a method and with materials approved by the Owner.

3-07 REMOVING DELERY TUBES

While removing tubes, care shall be taken to prevent any foreign material from entering the central water passages. The tubes are grouted into cast iron bells in the central end and lay in semicircular concrete tube beds for their full length. Care must be taken to prevent damage to the cast iron bells when removing tubes.

3-08 CLEANING EXISTING DELERY TUBES

- A. Items furnished by the Contractor:
  - 1. Hydrochloric Acid, Technical 22 Baume', inhibited for copper, in quantities required to clean 424 copper tubes.
  - 2. Soda Ash at 58% strength in quantities required to neutralize Hydrochloric Acid solution.
- B. Items furnished by the Owner:

1. Two fiberglass troughs, one with a constant duty vibrator attached.
  2. Litmus paper to check pH level to neutralize Hydrochloric Acid solution.
- C. Tubes shall be cleaned in the following steps:
1. Mix 20 gallons hydrochloric acid solution and 20 gallons of water in the trough with the constant duty vibrator attached.
  2. Completely fill the other trough with water and regulate constant flow through trough to keep trough filled with water.
  3. Stand tubes on end and tap gently to remove excess sand.
  4. Place tubes individually into fiberglass trough filled with hydrochloric acid solution and water and turn vibrator on. Protective gloves and goggles and other personal protective equipment as appropriate shall be worn to prevent injury.
  5. Tubes shall sit in the acid solution for a period of no less than 10 minutes. Tubes shall not be removed until all scale is removed.
  6. Tubes shall be removed from trough with hydrochloric acid solution and water and shall then be placed into trough with running water.
  7. Tubes shall soak in trough with running water for 10 minutes.
  8. Whenever hydrochloric acid solution is finished being used, it shall be neutralized with soda ash to a pH level of 7. It shall be checked for the proper pH levels by the Owner.
  9. When solution is neutralized, the Contractor shall dispose of it at a location on the Grounds of the Water Plant as directed by the Owner.

### 3-09 PLACING DELERY FILTER TUBES

The Contractor shall use caution in handling these tubes as they are relatively fragile. The tubes shall be set into the cleaned tube beds and caulked into the cast iron bells in the central water passages. The tubes shall be oriented so that the punched openings evenly straddle the vertical center lines of the tubes and tube beds. The ends fitted into the cast iron bells shall be set using Sonofoam Closed Cell (CC) Backer-Rod. After being set, the end of the tube shall be grouted into

place as shown on the drawings with Sikagrout 212, to create a non-sag paste, or Owner-approved equal. The capped end of the tube shall be grouted into place as shown on the drawings with Sikadur 31 non-shrink grout, or Owner-approved equal. The grouted joint shall be allowed to age undisturbed for 48 hours before testing with water. All products shall be NSF/ANSI 61 approved for use in municipal drinking water. Sikagrout 212 has been used in previous projects but may not be NSF/ANSI 61 Certified. Something similar to this product but NSF 61 Certified should be submitted for approval.

### 3-10 FINAL CHECK OF FILTERS

- A. After both filter half bottoms have been completely cleaned, they shall be carefully checked and inspected to see that all holes in the tops are open and that all water channels are clear.
- B. Sufficient water, then, may be put slowly through the system to make sure the system is properly sealed and all water passages open.
- C. The filter half is now ready for the placing of the gravel, sand and Anthracite. If this, however, is not done immediately, then the bottom shall be protected against subsequent construction damage. A plastic sheet shall be placed over the entire bottom to prevent dirt from entering the holes and to eliminate additional cleaning before placement of the gravel.

### 3-11 WASHING AND SCREENING THE NEW FILTER GRAVEL

The gravel furnished by the Contractor shall be new commercial filter gravel (See Section Four). The gravel shall be graded to size. Gravel shall be pre-washed and prescreened by the media vendor to remove fines and oversizes prior to arrival onsite. (See Paragraph 4-04).

All improperly sized pieces, both over and under shall become the property of the Contractor and shall be removed from the job site.

### 3-12 PLACING FILTER GRAVEL

The new filter gravel shall be placed in separate layers of the thicknesses shown on the drawings. The Contractor shall mark on the filter walls the correct gravel, sand, and anthracite layer thicknesses. The Contractor shall set the level in both filter halves the same. Wash water troughs and openings to the center passages shall be covered with plywood by the Contractor in a manner that completely blocks the entrance of anthracite, gravel or sand into the troughs or center passages from any direction.

The filter tank will be filled by Owner's personnel so that there are 4 feet of water above the top of the filter blocks or above the top of the preceding gravel layer.

The filter box can be filled with this amount of water in about 15 minutes. The clean filter gravel shall then be introduced by the Contractor through the 4-foot water cushion into the filter. When the Contractor judges that the proper amount has been placed, the water level will be dropped to the proper mark on the wall. The gravel shall then be leveled against the water surface. None of the particles shall be less than half submerged and there shall be no places where additional gravel can be added where the particles will be more than half submerged. A screed will be allowed to approximately level the gravel layer. Workmen shall not be allowed to walk directly on the gravel but must walk on boards of plywood no smaller than four feet by four feet by ¾" in dimension. If additional gravel must be added to bring the surface to the correct level, the filter box shall have 4-foot water cushion reintroduced by Owner's personnel. The gravel shall be inspected immediately prior to introducing it into the filter and if it is not clean and properly sized, it shall be rejected. Gravel made dirty in any way while in the filter box shall be removed and replaced with clean gravel.

After the Contractor has achieved the proper level on any layer, he shall have the filter backwashed by Owner's personnel by requesting this of the Owner's Inspector. Each layer shall be approved by the Owner's inspector before the next layer is started. Any gravel becoming mixed shall be removed and replaced with the proper sized gravel by the Contractor. Any gravel or sand in the washwater troughs shall be removed as the job proceeds.

### 3-13 PLACING SAND

Contractor shall introduce all sand through a 3/16" mesh screen to eliminate debris from getting into the filter. Contractor shall provide this screen, with suitable construction. The sand layer shall be placed utilizing clean sand furnished by the Contractor and any dirty sand found as the work progresses shall be replaced with clean sand. The filter tank must contain a 4-foot water cushion while the sand is being placed. Sand shall be placed to a depth of 24 inches.

The sand "fines" shall be removed in two separate skimming operations. The filter bed will be backwashed by the Owner's Filter Gallery personnel and a one-inch skim shall be made by the Contractor. Both skims shall be made by the Contractor when the sand is "wet" after filter water draw-down by Owner's personnel. The total sand removed by the skim shall not exceed 2 inches. Contractor shall replace any sand removed in excess of 2 inches. The final depth of sand after backwashing and skimming shall be twenty-two (22) inches above the top layer of gravel.

### 3-14 PLACING ANTHRACITE

The anthracite layer shall be placed utilizing clean anthracite furnished by the Contractor and any dirty anthracite found as the work progresses shall be replaced with clean anthracite. The filter tank must contain a 4-foot water cushion while

the anthracite is being placed. Anthracite shall be placed to a depth of 16 inches above the top of sand.

### 3-15 WEIR PLATES

The Contractor shall set and adjust the existing stainless steel weir plates 1 inch above the highest wash trough lip elevation in each filter. Aligning weir plates shall be done by moving the plates up or down by use of slotted holes until the desired elevation is reached. All Weir Plates in each filter half shall be set at the same elevation. Both filter halves shall be set at the same elevation. Aligning of weir plates shall be done prior to skimming the filter bed. Workmen shall not be allowed to walk directly on the sand but must walk on boards of plywood no smaller than four feet by four feet by  $\frac{3}{4}$ " in dimension.

### 3-17 CLEAN UP

At the end of the contract and before final acceptance of all contract work, the Contractor shall remove all sand, gravel and anthracite not used in the rehabilitation of Filters 19, 20, 25, 26, and 28 from the job site. All trash and debris resulting from contract work shall be removed.

### 3-18 OPERATIONAL WORKING CONDITIONS

There may be operational situations or circumstances which preclude the Owner's ability to provide for or to allow the Contractor to fill, empty or backwash the filter bed that is under rehabilitation or being skimmed. These situations are expected to be infrequent and/or of short duration. The Owner, when aware of developing situations, will notify the Contractor prior to the end of the normal workday of conditions which could limit his activities for the upcoming work day.

### 3-19 FILTER BACKWASH

The Contractor shall notify Owner's personnel 24 hours in advance of backwashing filter media, and the Contractor shall perform his work in accordance with the schedule approved by the Owner.

\* \* \* END OF SECTION 3 \* \* \*

## SECTION 4

### MATERIALS FOR FILTERS NO. 19, 20, 25, 26 AND 28

#### 4-01 NEW MATERIALS FURNISHED AND INSTALLED BY THE CONTRACTOR FOR FILTERS NO. 19, 20, 25, 26 AND 28

- A. Approximately 31 cubic yards of gravel nominally sized between 1 ½ and ¾ inch in the largest dimension and weighing approximately 95 pounds per cubic foot (dry) per filter.
- B. Approximately 9 cubic yards of gravel nominally sized between ¾ inch and ½ inch in largest dimension weighing approximately 95 pounds per cubic foot (dry) per filter.
- C. Approximately 9 cubic yards of gravel nominally sized between ½ inch and ¼ inch in largest dimension and weighing approximately 100 pounds per cubic foot (dry) per filter.
- D. Approximately 9 cubic yards of gravel nominally sized between ¼ inch and 1/8 inch in largest dimension and weighing approximately 100 pounds per cubic foot (dry) per filter.
- E. Approximately 9 cubic yards of gravel nominally sized between 1/8 inch in largest dimension and a size that will remain on a 16 MESH screen weighing approximately 100 pounds per cubic foot (dry) per filter.
- F. Approximately 98 cubic yards of filter sand weighing approximately 105 pounds per cubic foot (dry) per filter.
- G. Approximately 45 cubic yards of anthracite weighing approximately 56 pounds per cubic foot (dry) per filter.
- H. Sonofoam Closed Cell (CC) Backer-Rod, Crystex Non-Shrink Grout, Niklepoxy Flexresin Product No.10 with Flourosil, or Engineer approved equal, all as required to set the tubes.

#### 4-02 MATERIALS REMOVED BY THE CONTRACT AND WHICH BECOME HIS PROPERTY

Used filter media composed of sand and mixed sizes of filter gravel from filters 19, 20, 25,26 and 28.

#### 4-03 VOLUMES

All values of cubic yards of anthracite, sand, and gravel stated above have been determined by using an appropriate compact factor applied to the thickness of the material in place. The volumes stated are calculated values and do not include allowances for waste, reject, or skimmed losses. Contractor must allow for all losses. It is the intent of these specifications to have the Contractor furnish sufficient amounts of anthracite, sand and gravel to meet the required thicknesses of layers of anthracite, sand and gravel shown on the drawings.

#### 4-04 GRAVEL

- A. It is the intent of the Owner that the gravel to be furnished meets the requirements of the AWWA Specification No. B100-09, Standard for Filtering Material, except where noted herein.
- B. Filter gravel shall consist of coarse aggregate in which a high proportion of the particles are rounded and tend toward a generally spherical or equidimensional shape. It shall possess sufficient strength and hardness to resist degradation during handling and use, be substantially free of deleterious materials, and exceed the minimum density requirements.
- C. Gravel shall have a saturated-surface-dry specific gravity of not less than 2.50.
- D. Not more than 25 percent of the particles by weight shall have more than one fractured face.

The following definitions and tests shall be used in determining fractured, flat or elongated pieces of gravel. Selection of fractured, flat or elongated particles is to be done by visual separation.

A fractured face is defined as a surface surrounded by sharp edges, such as those produced by crushing, and which surface occupies more than approximately 10 percent of the total surface area of the particle. This is intended to exclude small nicks and chips as being classified as a fractured face.

- E. Not more than 2 percent of the pieces by weight shall be flat or elongated to the extent that the longest axis of a circumscribing rectangular prism exceeds 5 times the shortest axis.

The ratio of the longest axis to the shortest axis of the circumscribing rectangular prism for a piece of gravel shall be determined using a caliper or a proportional divider. Suspected elongated pieces can be checked using a caliper or a proportional divider. Suspected elongated pieces can

be checked by comparing the minimum thickness of the particle as measured at its approximate midpoint with the maximum length dimension.

- F. The gravel shall be visibly free of clay, shale or organic impurities.

Testing for these properties is normally not necessary, but should deleterious materials be readily noticeable, the gravel shall be within the following limits: A maximum of 1.0 percent minus No. 200 (0.074) mm material by washing as determined by ASTM C117; and a maximum of 0.5 percent coal, lignite, and other organic impurities such as roots or twigs as determined by ASTM C123 for lightweight pieces in aggregate using a liquid with a 2.0 specific gravity.

- G. Acid solubility shall not exceed 5 percent for sizes smaller than No. 9 (2.36 mm), 17.5 percent for sizes larger than No. 8 (2.36 mm), but smaller than 25.4 mm (1 inch), and 25 percent for 25.4 mm (1 inch) and larger sizes.

- H. For each size range of gravel specified, not more than 8 percent by weight shall be finer than the lower designated size limit and not more than 8 percent by weight shall be coarser than the upper designated size limit.

- I. The successful bidder shall supply a five (5) pound sample and sieve analysis conducted by a certified testing laboratory of each of the five(5) sizes listed in the specifications for each filter. A sieve analysis will also be performed on the samples by the Sewerage and Water Board. If there is a discrepancy, the Contractor shall retain and pay for the services of a local certified testing laboratory who shall conduct a third sieve analysis. The third analysis shall be the basis for acceptance or rejection of the material. The approved sample and the sieve analysis from the Successful Bidder will be used as a standard for all his future shipments. Gravel of quality inferior to the sample will be rejected.

The five (5) pound samples and copies of the sieve analysis shall be delivered to the following address:

Sewerage and Water Board of New Orleans  
8800 S. Claiborne Ave.  
New Orleans, LA 70118  
Attention: Mr. Chad Lavoie

- J. The following company has successfully sold gravel to the Sewerage and Water Board:

Northern Gravel Company  
Post Office Box 307  
Muscatine, Iowa 52761

- K. All gravel shall be certified prewashed and meet all NSF/ANSI 61 and AWWA B100 Standards

#### 4-05 FILTER SAND

- A. It is the intent of the Owner that the sand to be furnished meets the requirements of the AWWA Specification No. B100-09. Standard for Filtering Materials, except where noted herein.
- B. Filter sand shall consist of hard, durable and dense grains or predominantly siliceous material that will resist degradation during handling and use.
  - 1. Sand shall have a saturated-surface-dry specific gravity of not less than 2.50.
  - 2. The Sand shall be visibly free of clay, dust, and micaceous and organic matter.
  - 3. Testing for these properties is normally not necessary, but should deleterious materials be readily noticeable, the sand shall be within the following limits: a maximum of 2 percent minus No. 200 (0.074 mm) material by washing as determined by ASTM C117 and color not darker than the standard color in ASTM C40 for organic impurities in fine aggregate.
- C. Acid solubility shall not exceed 5 percent.
- D. Iron or manganese shall not be present in any form or quantity to adversely affect the water filtered.

- E. Filter sand shall be well graded and material showing abnormal grading may be rejected. The particle size distribution shall be determined by screening through a stack which may contain some or all of these standard sieves, Tyler 52 series or equivalent U.S. series numbers:

<u>SIEVE #</u>	<u>SIZE (mm)</u>
14	1.40
25	0.71
30	0.59
35	0.50
40	0.42
45	0.35
50	0.30
Pan	-----

Sample size for sieve analysis shall be 300 grams. Shaking time shall be ten (10) minutes. The percent sizes shall be determined from a plot of percentages of the material passing each sieve against the rated opening of the sieve. When so plotted, the 10 percent size shall be  $0.40 \pm 0.05$  mm.

The percentage of oversized and undersized particles shall be determined by the above sieve analysis. No sand particles shall be retained on a number 14 (1.40 mm) U.S. Sieve or equivalent Tyler 52 series. No more than 2% shall pass a number 50 (0.30 mm) U.S. Sieve or equivalent Tyler 52 series. Filter sand which does not meet all the parameters in this paragraph shall be rejected.

- F. In addition to the above requirements, the Uniformity Coefficient, the ratio of the 60% size to the 10% size, shall not exceed 1.50, when plotted on the Filter Sand Analysis Chart, Dwg. No. 10322-W-26. (See insert on page 4-7).
- G. Contractor shall supply a five (5) pound sample for each filter. A sieve analysis will be performed on the sample by the Sewerage and Water Board and will be the basis for acceptance of the sand.
1. The approved sample and the sieve analysis will be a standard for all future shipments. Sand of quality inferior to the sample shall be rejected.

2. The five pound sample and a copy of the sieve analysis shall be delivered to the following address:

Sewerage and Water Board of New Orleans  
8800 S. Claiborne Ave.  
New Orleans, LA 70118  
Attention: Mr. Chad Lavoie

3. All samples submitted shall become the property of the Sewerage and Water Board.

#### 4-06 ANTHRACITE

- A. It is the intent of the Owner that the anthracite to be furnished meets the requirements of the AWWA Specification No. B100-09, Standard for Filtering Materials, except where noted herein.
- B. Filter anthracite shall consist of hard, durable anthracite coal particles of various sizes.
- C. The hardness shall not be less than 2.7 on the Moh scale.
- D. The apparent specific gravity shall be no less than 1.5.
- E. The anthracite shall be visibly free of clay, shale, and extraneous dirt.
- F. Acid solubility shall not exceed 5.0 percent.
- G. The effective size of the anthracite shall range from 0.8 mm to 1.2 mm, and the Uniformity Coefficient shall not exceed 1.50.
- H. The anthracite has previously been purchased from the R.H. Palmer Filter Company, P. O. Drawer 50, Fairview, PA 16415.

\* \* \* END OF SECTION 4 \* \* \*

## SECTION 05 – MECHANICAL

### 5.1 GENERAL

- A. The work to be done under this Section includes all labor, materials, supervision, equipment, travel, utilities, transportation, tools, and services necessary for the work described herein. Unless otherwise noted, any equipment or materials removed by the Contractor shall become the property thereof, and the Contractor shall be responsible for their demolition and/ or removal.
- B. Provide all items, articles, materials, accessories, etc. mentioned herein, scheduled, or shown in the Drawings, and all labor, workmanship, tools, etc. required for the proper installation thereof to accomplish the intention of this specification. In general, provide any item of labor or material necessary for a completed system to accomplish the intention, whether specifically mentioned or not.
- C. The work in this section includes, but is not limited to the following:
  - 1. Removal of the existing Influent, Wash, Drain, and Effluent valves, actuators, and associated tubing.
  - 2. The Installation of new valves, actuators, associated tubing, and any necessary accessories, including control levers for each removed valve and actuator assembly.
- D. Drawings and specifications of all furnished equipment and assemblies shall submitted by the Contractor for approval by the Owner prior to their installation per these specifications.

### 5.2 SCHEDULING OF WORK

- A. The facilities to be modified under this Contract are integral and essential parts of the Main Water Purification Plant and pumping systems. The Contractor and his subcontractors shall coordinate their work with the project engineer and operations personnel to prevent disruption of the Sycamore Filter Gallery processes and shall perform no acts which will compromise the integrity of the facilities or the operation thereof.
- B. All existing systems shall remain in effect and in full operation to the maximum extent possible during construction. All systems and/or equipment outages shall be coordinated with and approved by the Owner's Engineer and operations personnel. Note: scheduling of outages will not only require coordination with Owner's Engineer and operations personnel but also other contract work within the Sycamore Filter Gallery. Due to the essential nature of this system, the maximum duration of a backwashing system outage will be 96 hours. The Contractor may be required to schedule work during night and/or weekend hours in order to meet these requirements.

### 5.3 CONTRACTOR'S RESPONSIBILITY

- A. The Contractor shall be responsible for providing all labor, tools, temporary construction, materials, supervision and appurtenances of any nature required to accomplish the evident intent of the Drawings and Specifications.
- B. Various items necessary and proper for the execution of this work may not be specifically shown on the plans or named in the Specifications. This shall not relieve the Contractor of the

responsibility to furnish and/or preform these items of work in order to accomplish the intent of the Contract.

- C. Contractors to include in submittals the proposed methods of valve removal, installation, hoisting, lifting assemblies and associated hardware.

#### 5.4 REMOVAL OF EXISTING VALVES AND ACTUATORS

- A. The Contractor shall be responsible for providing all labor, tools, temporary construction, materials, supervision and appurtenances of any nature required for the removal of the existing Wash Water, Treated Water, Drain, and Filtered Water valves and actuators for Filters 19, 20, 25, 26, and 28.
- B. The Contractor's responsibility shall be to ensure that water, air, and power sources to and from the applicable devices are completely isolated prior to the removal of the valves and actuator assemblies or any associated piping and wiring.
- C. Existing valves, hydraulic actuators, and associated tubing shall be removed and the new units shall be installed without damaging or diminishing the integrity of the adjacent major water lines. The Contractor may cut out adjacent spool pieces to remove existing valves and replace during valve installation. Contractor to include spool piece cutting/removal and any other work associated with valve removal in submittals for approval.
- D. The Contractor shall not utilize the roof beams in the removal or installation of components listed in this Contract. The contractor shall be responsible for any and all damages to the Owner's property.
- E. The Contractor shall perform all scraping, cleaning, and finishing of scaling and buildup on the flanges necessary for the removal of existing valves and installation of new valves. The Contractor shall obtain the permission of the Owner's Engineer before removing any obstructions not specified herein.

#### 5.5 MODIFICATION OF EXISTING OPERATING TABLES

- A. The Contractor shall remove all existing operating levers for filters 19, 20, 25, 26, and 28, and install in their place new operating levers for the operation of the valve actuators.
- B. The Contractor shall install all piping, valves, accessories, tubing, and other associated accessories and hardware necessary to the complete and proper installation of the supplied pneumatic 4-way operating levers.
- C. Valve operating levers shall be pneumatic 4-way control valves, lever-operated with manual return.
- D. Contractor shall install a permanent table for Filters 27 & 28 including operating levers, turbidimeter, and associated filter control equipment. Console/panel shall be corrosion resistant and design shall be submitted for review by SWB engineer and operations personnel.

#### 5.6 INSTALLATION OF NEW VALVES AND ACTUATORS

- A. The Contractor shall be responsible for providing all labor, tools, temporary construction, materials, supervision and appurtenances of any nature required for the installation of new valves and actuators for Filters 19, 20, 25, 26, and 28. This includes but is not limited to the following:
1. Complete equipment installation with controls, safety devices and auxiliary support systems necessary to operate the equipment and verify that the equipment functions correctly under no load conditions. Turn rotating equipment by hand to check. Complete cleaning and testing of piping systems. Inspect and clean equipment, devices, piping, and structures of debris and foreign material.
  2. Furnish, install, startup, and test pneumatic rotary vane AWWA C541-08 valve actuators and associated valves with required accessories as specified in Sections 5.7 and 5.9 of this specification.
  3. Remove protective coatings and oils used for protection during shipment and installation.
  4. Flush, fill, and grease lubricated systems in accordance with Manufacturer's instructions.
  5. Check equipment for correct direction of rotation and freedom of moving parts.
  6. Align equipment to Manufacturer's tolerances. Adjust clearances and torques.
  7. Correct any deficiencies or problems noted in Manufacturer's representative's installation reports.
- B. The CONTRACTOR shall furnish and install the required air tubing with fittings, connections, taps, and additional accessories necessary for a complete system and shall also install the valves with valve actuators. Each actuator shall have an isolation safety exhaust valve with locking handle provided at each branch airline to the actuator. Air tubing shall be furnished and installed from the control table to the actuators. Provide moisture traps with drip legs at the low points. Branch connections off main line shall be made off the top of the main line. Taps and isolation valves are required on the air piping at each distribution point off the main line.
- C. The CONTRACTOR shall coordinate between the pneumatic valve actuator/control valve supplier to make sure all assemblies will fit within the existing building structure.
- D. Actuator Mounting Responsibility: Valves to be actuated shall be shipped to the manufacturer's approved Valve Automation Fabricator (see AWWA C504-94, Section 1.6, Assembly) for complete assembly, calibration, and testing in order to validate the three (3) year warranty. A certification of the calibration, testing, and warranty shall be included in the final O&M manuals.
- E. All bolts and any other connecting or sealing mechanisms shall be replaced with new bolts, nuts, washers, and gaskets as specified herein.
- F. The Contractor shall be responsible for ensuring that all surfaces to be joined are clear of any scaling and buildup that would compromise the integrity of the valve and flange seals.
- G. Contractor work to furnish, install, and remove valves and actuators shall include all incidental work required for their removal and installation. Work on associated items included as incidental work shall be included in the itemized bid price for the valves and/or actuators. This includes, as an example, any work to remove associated piping, tubing, or pipe supports, lifting eye welding, additional work required to remove the valves and actuators from their existing locations, and additional work to replace these items with their newly furnished equivalent equipment.

H. Valve & Actuator Schedule:

Valve Tag / Service	Valve Type	Size	Qty.	Actuator Type	Actuator Finish	Manual O-ride
Influent (Raw Water)	BFV	20"	5	O/C	FP	Y
Wash	BFV	24"	5	O/C	FP	Y
Drain	BFV	30"	5	O/C	FP	Y
Effluent	BFV	20"	5	O/C	FP	Y

Abbreviations:

1. Valve Type: BFV=butterfly valve, EPV=eccentric plug valve, BV=ball valve
2. Actuator Type: O/C=Open-Close, MOD=Modulating
3. Actuator Finish: PC=Powder Coat, FP=Fluoropolymer
4. Manual O-ride: Indicates mechanical manual override declutch gearbox, Y=Yes, N=No

5.7 COMPONENT SPECIFICATIONS

A. Quality Assurance

1. A single supplier shall provide the vane type pneumatic valve actuators and valves as one complete system.
2. All equipment of each type specified in this section shall be supplied by a single supplier.
3. All equipment shall be furnished by a supplier or manufacturer having at least twenty (20) U.S. installations of the type being proposed, including coordination and assembly responsibility for the valve, actuator and associated devices for a complete package, each with a minimum of 5 years of satisfactory service.

B. Process Valves

1. Quality Assurance
  - a. Process valves shall conform to AWWA Standard ANSI/AWWA C-504, Class 150B criteria.
  - b. The valve shall provide a watertight shutoff when closed.
  - c. Supplied valves shall be manufactured in the USA.
  - d. Warranty: Valves shall be warranted for a minimum period of two (2) years from date of shipment. A certificate listing actuator serial numbers shall be provided prior to shipment in order to validate the warranty.
2. Component Specifications
  - a. Furnish and install a quantity of four(4) each 90° DeZURIK AWWA Butterfly (BAW) Valves, or Engineer-approved equal, to replace the removed Drain, Wash Water,

Treated Water, and Filtered Water valves at Filters 19, 20, 25, 26, and 28. A total of five(5) of each (Drain, Wash Water, Treated Water, and Filtered Water) valve type will be replaced within this contract work.

- b. Valve bodies shall be of cast iron per ASTM A126 Class B.
- c. Valve bodies shall be fully rubber lined and rubber lining shall withstand a 75-lb pull force (at 90° angle) before separating from valve body.
- d. Valve bodies shall be provided with flanges drilled, back spot faced, and machine finished.
- e. Seat material shall be Acrylonitrile-Butadiene (NBR).
- f. Seat-In-Body: Valves to incorporate a seat-in-body design. Submitted valves including a seat-on-disc type design will NOT be accepted.
- g. Discs shall be offset to provide an uninterrupted 360° seating edge. Disc seating edge shall be solid 316 stainless steel. Disc shall be securely attached to the valve shaft using type 304 stainless steel taper pins. Discs shall not be hollow.
- h. Valve shaft shall be type 304 stainless steel with self-compensating V-type packing for shaft seals and a minimum of four (4) sealing rings.
- i. Valve shaft bearings shall be PTFE lined with a non-metallic fiberglass composite backing and shall be permanently lubricated.
- j. All exposed nuts, bolts, and washers shall be constructed of Stainless Steel.

### C. Pneumatic Rotary Vane Valve Actuators

#### 1. Quality Assurance

- a. The equipment supplier shall furnish a qualified field representative for a minimum of two (2) working days to provide guidance with installation, inspect all equipment described herein after installation, to assist in troubleshooting, to advise the OWNER during startup and testing, and to train Owner's personnel in routine maintenance and troubleshooting procedures. This time period shall consist of a minimum of 8-hour days, and travel to and from the project site shall not be included. CONTRACTOR shall coordinate the scheduling of such training and startup assistance with Owner's engineering and operations personnel. Travel to and from the project site shall be the responsibility of and at the cost of the equipment supplier. OWNER may videotape training session.
- b. Supplier's installation report is required prior to final acceptance.
- c. Supplier shall maintain a complete stock of spare parts commonly needed for the equipment specified at a location, or shall furnish spare parts within 48 hours of request.
- d. All pieces of equipment shall have an engraved Type 316 stainless steel manufacturer's nameplate securely affixed in a conspicuous place on the equipment showing the ratings, serial number, model number, manufacturer and other pertinent nameplate data.
- e. Pneumatic vane actuators shall be manufactured in the USA.

- f. All actuator assemblies shall be warranted for a period of three (3) years from date of final acceptance. A certificate listing actuator serial numbers shall be provided prior to shipment in order to validate the warranty.

## 2. Component Specifications

- a. Furnish and install a quantity of five(5) each K-Tork, or Engineer-approved equal, high performance, quarter turn, double acting, 90° rotary pneumatic actuators to replace the five (5) removed Drain, Wash Water, Treated Water, and Filtered Water actuators. There will be five (5) of each type of these actuators to be replaced within this contract work. These actuators shall conform to AWWA Standard ANSI/AWWA C-541-08 criteria.
- b. Actuator Design: Pneumatic actuators shall be of the vane type design with only one (1) moving part. Actuators shall have male output shafts on both sides of actuator to drive valve and control accessories. Actuator shall have a vane position indicator milled into the output shaft. One side of the actuator shall be manufactured to ISO/NAMUR mounting standards for attachment of accessories (limit switches, indicators, positioners). Seals shall be double opposed lip seals with stainless steel expanders. Seal backing plates shall be steel. O-ring seals on vane will not be acceptable.

- c. Actuator Materials of Construction:

Housing: Pressure die cast A413 or A356 aluminum casting with all surfaces coated with thermosetting hybrid polyester/epoxy powder coat with Ultraviolet Inhibitor. Zinc housing will not be permitted. Actuator housing to include industry-standard NAMUR accessory mount interfaces as an integral part of the housing. The NAMUR VDI/VDE 3845 shall be included on top of the actuators and on the solenoid manifold to allow for the easy installation of standard actuator control accessories.

- i. This installation shall require a Fluoropolymer (Ranger CG Corrosion-Guard, or Engineer approved equal) finish on both the actuator interior and exterior and on the complete vane and output shafts. Exterior-only coating will not be acceptable and manufacturer shall have at least 5 years of successful installation history with the Fluoropolymer finish.
- ii. Actuator vane shall be electro less nickel-plated finish prior to application of the Fluoropolymer coating on vane.
- iii. All threaded fittings shall have a locking and sealing compound designed for metal tapered threads and fittings. The sealing compound shall be applied at time of assembly of actuator, and when field installed bolting hardware is installed.
- iv. All actuators shall be tested after assembly. Actuators shall not require more than three (3) psig to be cycled a complete stroke in each direction before they are connected to the valve. Test report documenting zero (0) cross vane leakage shall be submitted prior to shipment.

Vane / Output Shaft: Steel ASTM A148 per AWWA C540-2, Grade 115-95, heat treated with electro less nickel plated finish. Ductile Iron vane / output shafts will not be acceptable.

Hardware: All fasteners and travel stops stainless steel to US ANSI standard. Metric bolting will not be acceptable.

- d. Mechanical Manual Override: Each actuator assembly shall include a mechanical manual override de-clutch gearbox and hand wheel. The manual override shall be able move and hold the valve in any position between full OPEN and full CLOSE. The manual override shall be capable of remaining on the valve and fully operational with the actuator removed and include two mechanical valve position stops. The manual override shall have a cast iron housing and stainless-steel input shaft and fasteners, rated for IP68 / NEMA 4/4X environments. Hand wheel diameter shall be selected to limit rim pull to a maximum of 80#. Include 3-way actuator vent valve(s) as required to bleed the actuator and isolate the supply air during manual operation. The 3-way vent valve(s) shall include “Auto” and “Manual” legend plate and the hand wheel shall include OPEN and CLOSE designations and directional arrows. The de-clutch manual override shall be manufactured by the actuator supplier.
- e. Torque Capability: The rated torque capability of each actuator shall be sufficient to seat, unseat, and rigidly hold, in any intermediate position, the valve disc it controls under the operating conditions specified herein. Torque safety factors shall conform to AWWA Standards and in no case be less than 1.25 times the valve manufactures specified torques based on operating conditions.
- f. Safety Factor: Actuator housings, supports, and connections to the valve shall be designed with a minimum safety factor of 5, based on the ultimate strength, or a minimum safety factor of 3, based on the yield strength of materials used.
- g. Stop-Limiting Devices: Valve actuators shall be equipped with adjustable mechanical stop-limiting devices to prevent over-travel of the valve disc in the open and closed positions. Position stops shall provide, at minimum, 80 to 100 degrees of adjustable travel.
- h. The pneumatic actuators shall have a working pressure of 150 psig per AWWA C540-2 standards with an overload pressure of 220 psig. Actuators with a published 100 psig maximum operating pressure rated will not be acceptable.
- i. Actuators shall be equipped with adjustable flow-control devices controlling the operating air exhausting from the actuator. The devices shall be located at or near the actuator or on the solenoid valve. The opening and closing speeds shall be nominally set for a range of 30 to 90 seconds, variable with valve sizes. Final adjustments shall be made by the purchaser to minimize line surges during normal operation.
- j. Actuator Testing:
  - i. Performance Tests: Each actuator and valve assembly shall be cycled a minimum of three (3) times prior to assembly to the valve and in the field using the start and stop controls from the fully closed to the fully open position to demonstrate that the complete assembly, including controls, operates properly.
  - ii. Pressure Tests: Each actuator shall be tested at the overload pressure. The duration of this test shall be sufficient to allow visual examination for leakage and shall be a minimum of one (1) minute.

- iii. Test Certification: Certification of tests and copies of test or certificate of conformity reports shall be provided on request if the request is made prior to the time of testing.
- k. Bracket and Couplings:
  - i. Custom fabricated bracket to adapt the actuator to the new or existing (retrofit) valves shall be heavy wall rectangular carbon steel tube and shall retain the valve stem packing or provide for use of the original draw-down packing gland as required.
  - ii. All brackets and couplings shall have part numbers stamped into each part.
  - iii. All brackets and couplings shall have electro statically applied fusion bonded nylon powder coated finish.
  - iv. Couplings shall have a flat machined on the coupling for visual indication of valve disk position.
  - v. Couplings shall be made of bar stock carbon steel with keyway and stainless steel setscrew.
- l. Acceptable Manufacturers:
  - i. K-TORK Actuators & Controls, a Rotork company, 10410 Vista Park Road, Dallas, Texas 75238 Telephone number (214) 343-9980
  - ii. Engineer Pre-Approved equal

#### D. Pneumatic Operating Levers

- 1. Furnish and install a quantity of four(4) each lever-operated, 2 position, 4-way pneumatic valves in place of existing filter valve operating levers mounted to each filter table. These four operating levers supply air to the Drain, Wash Water, Treated Water, and Filtered Water actuators. There will be five(5) filter tables to be refurbished in this manner in this contract.
- 2. 4-way pneumatic operating valves shall be rated for use in highly corrosive environments.
- 3. 4-way pneumatic operating valves shall be rated for 150psi operating pressure
- 4. Materials of Construction:
  - a. Body: Aluminum or Stainless Steel
  - b. Spool: Stainless Steel
  - c. Dynamic Seals/O-Rings: Fluorocarbon
  - d. Operator Seals/O-Rings: Buna (Nitrile)
- 5. Warranty: Minimum 3 year warranty
- 6. Acceptable Manufacturers:
  - a. Parker Hannifin Corporation – reference Parker Directair Model #520831000
  - b. Versa Valves – reference Versa 5/2 Valve, Lever Operated, 2-Position, Detented

c. Engineer-approved equal

E. All wetted items shall comply with NSF/ANSI 61: Drinking Water System Components – Health Effects criteria.

F. Manufacturer’s Literature

The Contractor shall furnish to the Owner four(4) copies of all descriptive literature for all component parts installed, containing manufacturer’s model number, individual part number, part description, etc. Operations and maintenance manuals for the valves and actuators shall also be supplied to the Owner. Where applicable, the Contractor shall furnish a maintenance procedure for each valve and actuator size. Each sheet of this provided literature shall include the name of the project, date, and description of the item.

The following data shall, as a minimum, be provided in four copies:

1. Valves Dimensional and Test Data
2. Actuators Nameplate, Pressure, and Torque Data
3. Pipe and Fittings Data
4. Valve Control Levers Dimensional and Pressure Rating Data
5. As-Built Layout Drawings

G. Operator Air Tubing

Air tubing on valve operators shall be rubber. Air tubing shall be sized according to actuator size. As a minimum ¼-inch on smaller actuators (under 20”), 3/8-inch on larger actuators (over 20”).

H. Mounting hardware

All required bolts shall adhere to ASTM F593 Alloy Group 2 (316 SS), condition CW and shall have UNC threads. All required nuts shall be standard hex nuts in full compliance with ASTM F594 and be Alloy Group 2 (316 SS), condition CW, with UNC threads. Washers shall be stainless steel flat washers and shall conform to the dimensional requirements set forth in ASTM F436 shall be black Garlock cloth inserted.

## 5.8 EXECUTION

A. Field Quality Control

Contractor shall verify that structures, equipment, pipes, valves, fittings, and other appurtenances are compatible with the existing piping, flanges, bolt hole diameters, bolt hole patterns, etc. necessary to the installation of the new equipment.

B. Specifications, Materials, and Workmanship

All equipment, materials, and workmanship shall be of highest grade in accordance with modern practice. Equipment described and furnished within these specifications shall be in full conformity of drawings, specifications, engineering data, instructions, and recommendations of the equipment manufacturer, unless the Owner's Engineer notes exceptions. The equipment supplied shall be new. Sewerage and Water Board of New Orleans will determine the ability of the bidder to manufacture specified products. Among other factors to be considered by the Sewerage and Water Board evaluation team will be contractor's work of a similar nature, history of performance in manufacturing similar products, and familiarity with the project location and facility.

## 5.9 VERIFICATION OF OPERATION

The Contractor shall verify that each valve is fully operational and demonstrate this to the Owner's Engineer prior to the removal of any plug or other mechanism which may be impeding the flow of water to the equipment under consideration.

### A. Manufacturer's Representative (Pneumatic Rotary Vane Valve Actuators)

1. The services of the manufacturer's technical representative shall be provided for pre-startup installation checks, startup assistance, training of Owner's personnel, troubleshooting, acceptance testing, and other services as required within these Contract Documents.
2. Manufacturer's representative shall:
  - a. Approve installation in writing to Engineer before operation.
  - b. Verify conformance to all specified requirements.
  - c. Fully instruct all designated personnel for the plant on proper care, maintenance, and operation of all equipment and appurtenances.
  - d. Perform specified acceptance tests and operate system to verify satisfactory operation of all equipment in presence of Owner's personnel and Engineer.
  - e. Check all equipment for excessive noise or vibration, proper alignment, general operation, etc.
  - f. Operate the equipment through the design performance range consistent with available flows. Adjust, balance, and calibrate and verify that the equipment, safety devices, controls, and process system operate within the design conditions.
  - g. Provide a certificate by the valve actuator supplier indicating proper installation and start-up procedures have been followed. This certificate shall be required and included as part of the final operation and maintenance manuals in order to validate the specified three (3) year warranty.
  - h. Revisit job sites as often as necessary beyond minimum services specified to correct deficiencies to satisfaction of ENGINEER.

### B. Acceptance Test

1. Upon completion of the installation of each valve actuator, an acceptance test will be conducted to verify the satisfactory operation and performance of each actuator. Each valve shall be opened and closed using the plant control system as applicable (AUTO) and manually.
2. The test shall be conducted in a manner approved by and in the presence of the

ENGINEER. The equipment and piping will be completely checked for leakage, general operation, etc.

3. Each valve actuator shall perform in a manner acceptable to the ENGINEER before the OWNER will make final acceptance.

## 5.10 CLEAN UP

The Contractor shall remove all debris, surplus and waste materials, oil, grease, or stains resulting from the work performed prior to acceptance. Touch-up paint shall match exactly and blend with factory finishes.

## 5.11 SUBMITTALS

- A. The Contractor shall submit product data for the valves, pneumatic actuators, control levers, and all components and assemblies for their approval prior to purchase.
- B. The Contractor shall submit detailed drawings of the final installation for approval prior to commencing any field work.
- C. The Contractor shall submit for approval shop drawings showing all dimensions necessary for fabrication and placing of all components. Shop drawings and applicable product data specific to this project shall be supplied in electronic format or bound neatly in a single package per engineer's requirements. The following information shall be included as a minimum:
  1. Manufacturer and model number of all equipment within this specification and a schedule showing all operators and valves furnished for this project.
  2. Design performance characteristics, capacities, sizes, ratings, and other appropriate information.
  3. Layout drawings including all proposed system components with dimensions, clearances required and sizes indicated, and arrangement and size of connections. These shall include special arrangements due to the configuration of the existing building structure.
  4. Listing of materials of construction for all components
  5. Manufacturer's instructions regarding delivery, storage and handling of equipment.
  6. Adjustable settings with range provided for valve opening, closing, and emergency closing speeds.
- D. Complete operation and maintenance data for all major equipment and ancillary items in accordance with specifications.
- E. Startup and test schedule.
- F. Equipment installation report with field test data and test records.
- G. Warranties and service agreements for all applicable equipment.
- H. All deviations from Contract Documents shall be clearly identified and submitted to the ENGINEER through the CONTRACTOR as a Contract Modification Request.
- I. Any other information necessary for ENGINEER to determine compliance with the specifications.

J. ENGINEER will not review partial or incomplete submittals.

**SECTION 01 24 13  
VALUE ENGINEERING**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. This section applies to cost reduction proposals, hereinafter referred to as Value Engineering Cost Proposal (VECP), initiated and developed by Contractor or Packager to change requirements of the Contract for sole purpose of reducing total cost of the Work. It is the intent that the VECP Construction Savings Amount, as defined herein, will be shared between Contractor or Packager and Owner.
- B. VECP proposal shall be identified as such at the time of submission to Engineer.
- C. VECP, if adopted, shall result in a savings to Owner by providing a decrease in cost for performing the Work without impairing any of the essential functions and characteristics such as service life, reliability, economy of operation, ease of maintenance, desired appearance, and safety features.
- D. VECP shall not be based solely upon a change in specified quantities.
- E. Contractor or Packager may withdraw the whole or part of a submitted VECP prior to acceptance by Engineer and Owner.
- F. Contract Definitions are defined in Section 01 61 00, Common Product Requirements. For the purposes of this Specification, Contractor shall refer to Contractor or Packager depending on the Work.

**1.02 SUBCONTRACT FLOW DOWN**

- A. Contractor shall include these VECP provisions in subcontracts of \$25,000 or greater. VECP provisions may be included in subcontracts of lesser value. Subcontracts shall state that benefits accruing to Contractor as a result of an accepted VECP initiated by a Subcontractor shall be shared by Contractor and Subcontractor, in a manner specified in the subcontract. Concurrent contract savings on other Owner contracts where Subcontractor is participating are not allowed.

**1.03 DEFINITIONS**

- A. Collateral Savings: Measurable net reductions in Owner's costs of operation that result from VECP including maintenance, logistics and Owner-furnished equipment.

- B. Concurrent Savings: Savings from other Owner contracts where Contractor is participating.
- C. Contractor Costs: Reasonable costs incurred by Contractor in preparing VECP and making the change, such as cancellation or restocking charges.
- D. Future Contract Savings: Reductions in cost of performance of future contracts for essentially the same item resulting from VECP submitted by Contractor.
- E. Gross Savings Amount: The gross savings amount to Contract, before deductions of Owner and Contractor Costs.
- F. Owner Costs: Reasonable costs, including associated engineering costs, incurred by Owner for evaluating and implementing VECP, such as redesign, testing, and effect on other contracts, including right of way acquisition costs.
- G. VECP Construction Savings Amount: Net amount of Contract Price reduction to be realized by implementation of VECP; the Gross Savings Amount less Owner and Contractor Costs.

#### 1.04 PREPROPOSAL SCREENING

- A. Upon request of Contractor, and with approval of Engineer, a preproposal screening meeting will be scheduled for Contractor to present anticipated proposal.
- B. Contractor, Engineer, Owner and, if applicable, Subcontractor or Supplier will be present at meeting.
- C. Engineer and Owner will render a preliminary opinion as to relative merits of proposal during meeting. Contractor is not to assume acceptance of VECP based on Engineer or Owner concurrence with merits of preliminary proposal.
- D. If proposal is found to have merit, Engineer will confirm minimum technical content requirements to be submitted by Contractor with the intent to minimize proposal resubmittals.
- E. Any VECP received which has not been introduced in a preproposal screening may be rejected without review.

#### 1.05 VECP PROPOSAL SUBMITTAL

- A. Prior to submitting a VECP to the Engineer for consideration, the Contractor shall review the scope and potential magnitude of the identified VECP with the Engineer to establish concurrence that the VECP merits pursuit.
- B. Contractor shall prepare and submit four copies to Engineer.

- C. Include, as a minimum, the following information with each VECP:
1. Description of the difference between existing Contract requirement and VECP.
  2. Comparative advantages and disadvantages between Contract requirement and VECP.
  3. Itemization of requirements of Contract which must be changed if VECP is adopted, and a recommendation as to how to make such change (e.g. drawing numbers and specifications).
  4. Justification for change in function or characteristic of each affected item and effect of change on performance of end item.
  5. Detailed cost estimate, with itemized breakdown containing quantities and unit prices for both original design and proposed change. Cost estimate shall include Contractor Costs, including amounts attributable to subcontracts. Basis for estimate shall also be included.
  6. Prediction of effects VECP would have on Owner Costs, such as additional engineering costs, Owner-furnished equipment costs, costs of related items, and costs of maintenance and operation.
  7. Statement of time by which a Change Order adopting VECP must be issued, so as to obtain maximum cost reduction.
  8. Proposed revisions to construction schedule, if any.
- D. Engineer has right to reject, without review, any VECP that does not contain herein required documentation.

#### 1.06 CONSTRUCTION SAVINGS SHARING

- A. If VECP is accepted, resulting deductive Change Order to Contract will be in an amount equal to 50 percent of VECP Construction Savings Amount, determined as follows,  $V = G - (C + O)$ , where:
- G = Gross Savings Amount.  
 C = Contractor Costs.  
 O = Owner Costs.  
 V = VECP Construction Savings Amount.

#### 1.07 EXECUTABLE VECP

- A. If the VECP is accepted, a deductive Change Order will be prepared, in accordance with this section and “change” clause of these Contract Documents, adjusting Contract Price and other affected provisions.
- B. Unless and until a VECP Change Order is executed by both parties, Contractor shall remain obligated to perform in accordance with terms of the Contract.

- C. Acceptance of VECP and performance of the Work thereunder shall not extend Contract Times, unless specifically provided for in the Change Order authorizing VECP.
- D. Contractor's profit shall not be reduced by application of VECP.
- E. Contractor is not entitled to share in concurrent, collateral, or future contract savings.
- F. Owner may accept, in whole or in part, submitted VECP. Owner may modify a VECP, with concurrence of Contractor, to make it acceptable.
- G. Neither Owner nor Engineer shall be liable for delays in acting upon, or for failure to act upon, a submitted VECP.
- H. Decisions of Owner as to acceptance of VECP under these Contract Documents shall be final and shall not be subject to the "Claims" clause of Contract.
- I. Contractor may restrict Owner's right to use any portion of a VECP or its supporting data, submitted pursuant to this section, in accordance with the terms of the following if it is noted on such.

"These data are furnished pursuant to a value engineering change proposal and shall not be disclosed to an entity other than Owner and Engineer, or to be duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal. This restriction does not limit Owner's right to use information contained in these data if it is or has been obtained from another source, or is otherwise available without limitations. If such a proposal is accepted by Owner by issuance of a Change Order, Owner shall have the right to duplicate, use and disclose any data pertinent to the proposal as accepted, in any manner and for any purpose whatsoever."

- J. In the event of acceptance of VECP, Contractor hereby grants to Owner all rights to use, duplicate or disclose in whole or part, in any manner and for purpose whatsoever, and to have or permit others to do so, any data reasonably necessary to fully utilize such proposal.

1.08 NONEXECUTABLE VECP

- A. If VECP is not accepted, Engineer will notify Contractor in writing, explaining reasons. Contractor's costs of development of VECP are nonrecoverable in such an event.

- B. In the event Contractor withdraws from VECP that has been previously agreed upon by all parties, Engineer's costs for evaluating VECP will be deducted from Contract Price via a Change Order.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

February 9, 2015

Sewerage & Water Board of New Orleans  
880 S. Claiborne Avenue  
New Orleans, Louisiana 70118

Attn: Mr. Jared Burnett  
P: (504) 865-0436  
E: jburnett@swbno.org

Re: Asbestos and Lead-Based Paint Sampling  
880 S. Claiborne Avenue  
New Orleans, Louisiana 70118  
Terracon Project No. ET147039

Dear Mr. Burnett:

Terracon Consultants, Inc. (Terracon) conducted limited lead-based paint sampling on structural beams and equipment from the filter gallery located at the facility located on **Claiborne Avenue** in New Orleans, Louisiana. As outlined in our proposal dated October 30, 2014, our scope of service was limited to the collection of paint chip samples from equipment that will be impacted during proposed structural upgrades, submission of the samples to an accredited laboratory and reporting the analytical results.

### **Limited Lead-Based Paint Sampling**

Lead is regulated by the US Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA). The EPA regulates lead use, removal, and disposal, and OSHA regulates lead exposure to workers. The EPA defines lead-based paint (LBP) as paint, varnish, stain, or other applied coating that contains lead equal to or greater than 1.0 mg/cm<sup>2</sup>, 5,000 mg/Kg, or 0.5% by dry weight as determined by laboratory analysis. For the purpose of the OSHA lead standard, lead includes metallic lead, all inorganic lead compounds, and organic lead soaps. A synopsis of the OSHA regulations (29 CFR 1926.62) and the applicability are as follows:

The OSHA *Lead Standard for Construction* (29 CFR 1926.62) applies to all construction work where an employee may be occupationally exposed to lead. All work related to construction, alteration, or repair (including painting and decorating) is included. The lead-in-construction standard applies to any detectable concentration of lead in paint, as even small concentrations of lead can result in unacceptable employee exposures depending upon on the method of removal and other workplace conditions. Under this standard, construction includes, but is not limited to, the following:

Terracon Consultants, Inc. 524 Elmwood Park Blvd, Suite 170 New Orleans, Louisiana 70123  
P (504) 818 3638 F (504) 818 3890 terracon.com

**Environmental**



**Facilities**



**Geotechnical**



**Materials**

- iii Demolition or salvage of structures where lead or materials containing lead are present
- M Removal or encapsulation of materials containing lead
- i,1 New construction, alteration, repair, or renovation of structures, substrates, or portions containing lead, or materials containing lead
- „w Installation of products containing lead
- fi1 Lead contamination/emergency clean-up
- i Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed
- m Maintenance operations associated with construction activities described above

Limited lead-based paint sampling was performed on December 16, 2014 by Mr. Jason M. Maloney. Terracon mobilized to the site to collect paint chip samples from accessible painted surfaces of structural beams and equipment identified by a client representative, that will be impacted based on planned repairs and maintenance activities. The bulk samples were submitted under chain of custody to EMSL Analytical, Inc. of Baton Rouge, Louisiana (LELAP #01950) by Flame Atomic Absorption (FAA) according to EPA Method SW-846-3050.

Based on the results of laboratory analysis, lead was detected in samples of the following paint analyzed during Terracon's survey. Lead was detected at or above the EPA threshold of defined by the EPA as containing concentrations greater than 5,000 mg/kg or 0.5% by weight in eight (8) of the analyzed samples.

Color	Substrate	Component	Condition	Concentration (% wt)
Gray	Plaster	Wall by Filter #22	Poor	6.9
White	Steel	Horizontal Structural Beam by Filter #9	Poor	3.0
Black	Steel	Vertical Structural Beam by Filter #9	Poor	1.8
Brown	Steel	Vertical Structural Beam by Filter #9	Poor	4.4
White	Steel	Horizontal Structural Beam by Filter#25	Poor	1.1
Gray	Steel	Vertical Structural Beam by Filter#16	Poor	1.2
Green and Gray	Steel	Stairway By Filter #16	Poor	0.52
White	Steel	Horizontal Structural Beam by Filter #12	Poor	0.73

OSHA construction rules do not specify any "safe" or acceptable levels of lead within LBP for the purposes of occupational exposures. Construction work involving lead-containing paint (LCP) must be completed in accordance with OSHA regulations, not limited to the lead standard, 29 CFR 1926.62. Contractors completing work in areas found to contain lead, or where it is reasonable to assume lead may be present, should be notified of the presence (and potential presence) of lead. Contractors must adhere to 29 CFR 1926.62 with regard to work procedures, medical monitoring, personal protective equipment use, and proper work protocols should lead dust be generated as part of the work activities.

The LBP sampling was limited to visible and accessible surfaces described herein, and the scope of work outlined in our proposal. Terracon cannot guarantee a building or property to be LBP free as the possibility exists that LBP coated surfaces may be hidden from sight or in inaccessible locations, or the homogeneous construction areas identified may not be truly homogeneous. It should be understood that this limited LBP sampling is not considered to be comprehensive in nature, and the results are not intended to be used to determine lead hazards, develop abatement plans, or prepare detailed cost estimates for abatement.

### **Limited Asbestos Sampling**

While performing the limited lead-based paint chip sampling Terracon observed suspect asbestos-containing materials (ACM) within the area to be impacted during planned repairs and upgrades. Mr. Maloney, an LDEQ certified asbestos inspector (AI #41178742) collected one bulk sample from one homogeneous area of suspect ACM. The bulk sample was submitted under chain of custody to EMSL Analytical, Inc. of Baton Rouge, Louisiana (NVLAP #200375-0) for analysis by polarized light microscopy with dispersion staining techniques per EPA methodology (40 Code of Federal Regulations (CFR) Part 763 Subpart E). The percentage of asbestos, where applicable, was determined by microscopic visual estimation.

Asbestos in concentrations of more than one percent (1%) was identified in the following material:

- White Pipe Thermal System Insulation (TSI)

The roll-on wall and ceiling textures were identified throughout the house and are considered Friable ACM. According to EPA NESHAP regulations, friable ACM is required to be abated prior to renovation or demolition impact.

Friable ACM, along with Category I and Category II non-friable ACM which is in poor condition and has become friable or which will be subjected to drilling, sanding, grinding, cutting or abrading and which could be crushed or pulverized during anticipated renovation or demolition activities are considered regulated ACM (RACM). RACM must be removed prior to renovation or demolition activities which will disturb the materials

**Limited Asbestos and Lead-Based Paint Sampling**

880 S. Claiborne Street ■ New Orleans, Louisiana  
February 9, 2015 ■ Terracon Project ET147039

# Irreracon

Under Chapter 51, Section F, RACM must be removed prior to renovation or demolition activities that will disturb the materials. LDEQ requires a 10-work1ng day notification (Form AAC-2) of any demolltlon activity, regardless of whether the building contains asbestos, and any renovat1on activity which disturbs RACM. Any individual or company contracted to perform a demolition or renovation activity which disturbs RACM must be recognized by the Louisiana Licensing Board for Contractors to perform asbestos abatement.

The OSHA Asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 fleec) as an eight hour time weighted average. The OSHA standard classifies construction and maintenance activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work.

Limited asbestos and lead-based paint sampling was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during limited sampling event. This letter report has been prepared on behalf of and exclusively for use and reliance by the Client. This report is not a bidding document. Contractors or consultants reviewing this limited sampling report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information, which may have been used in the preparation of this report. No warranty, express or implied is made.

Terracon appreciates the opportunity to provide this service to the Sewerage and Water Board. If you have any questions regarding this limited asbestos sampling report, please contact the undersigned at (504) 818-3638.

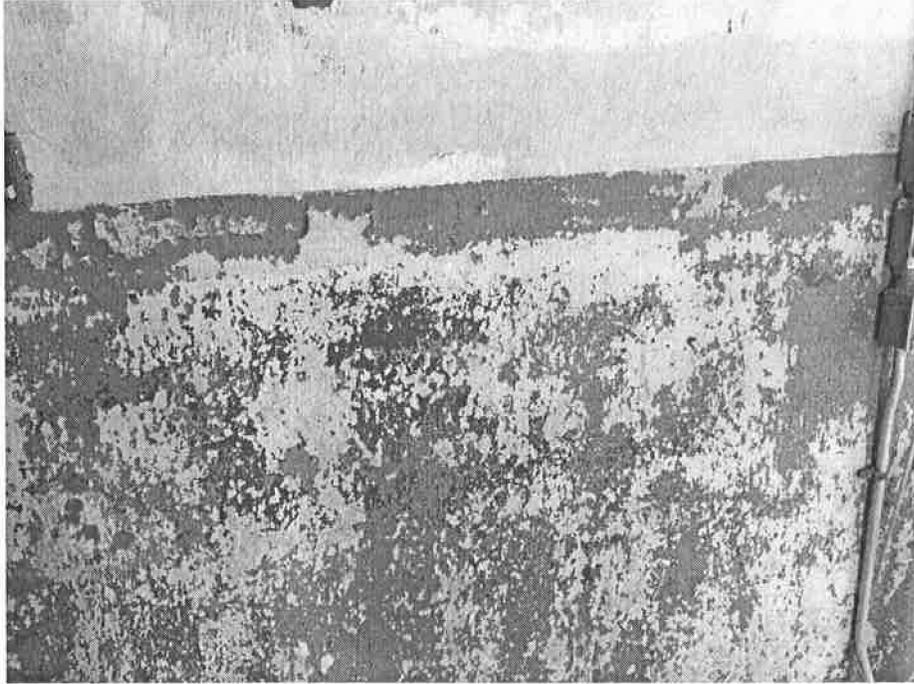
Sincerely,  
**Irreracon**

*Prepared By:*

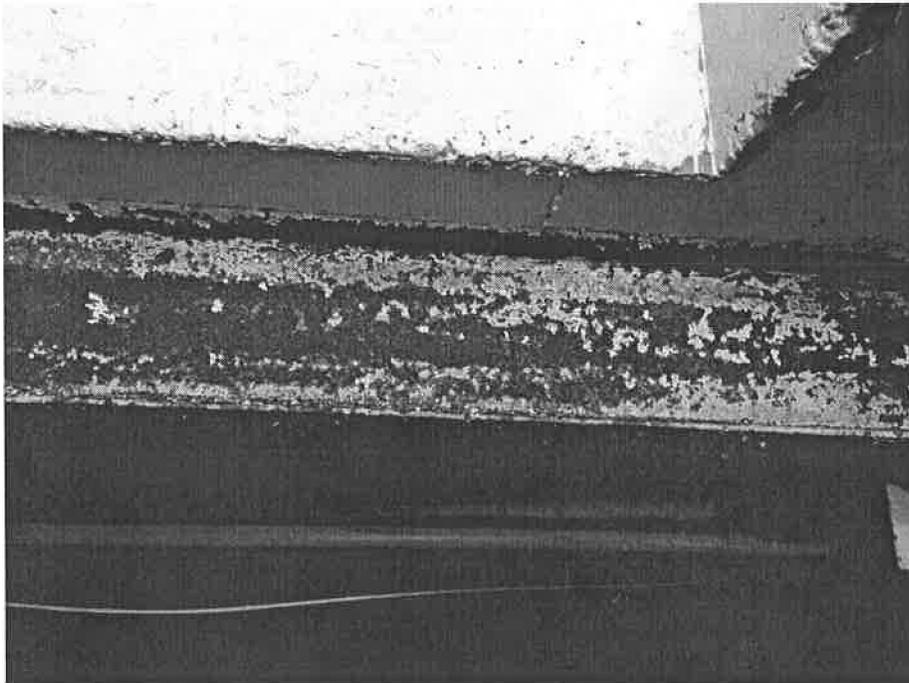
**g** 1-711, 4 ":-7  
Jim M. Maloney, P.E/  
Project Engineer

*Reviewed By:*

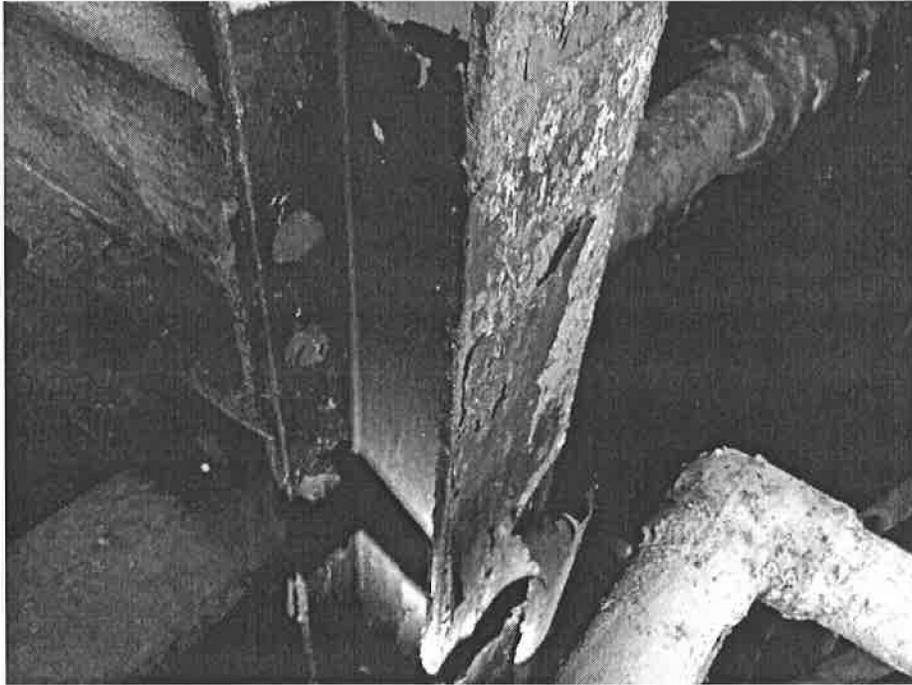
**Ctv** Jeffrey S. Mutchler  
Industrial Hygiene Manager



**Photo 1** View of Lead-Based Gray Wall Paint (6.9%wt) near Filter #22



**Photo 2** View of Lead-Based White Paint (3.00%wt) on Horizontal Structural Beam Near Filter #9



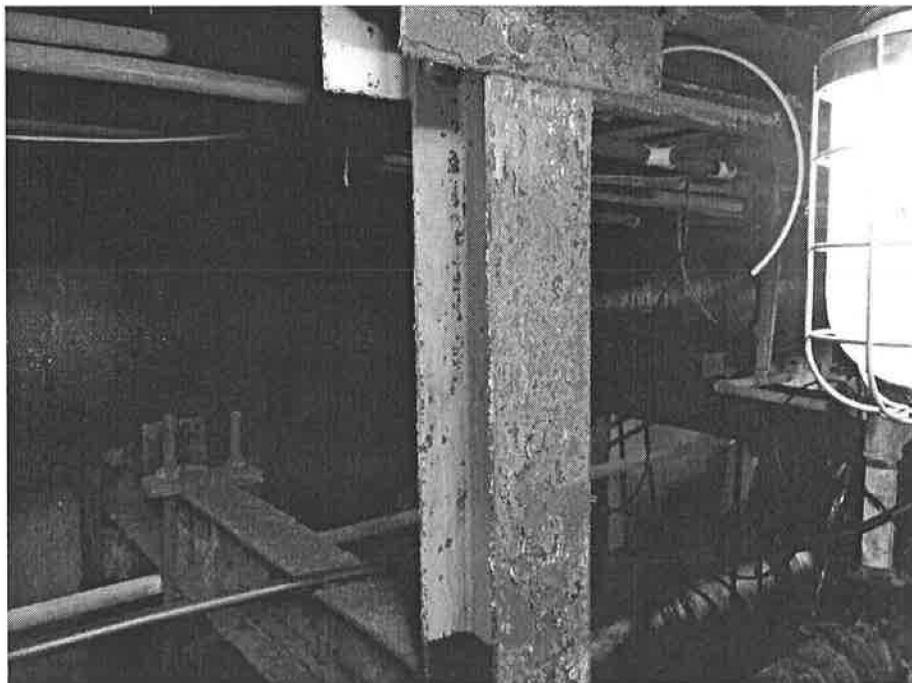
**Photo 3** View of Lead-Based Black Paint (1.8%wt) on Vertical Structural Beam near Filter #9.



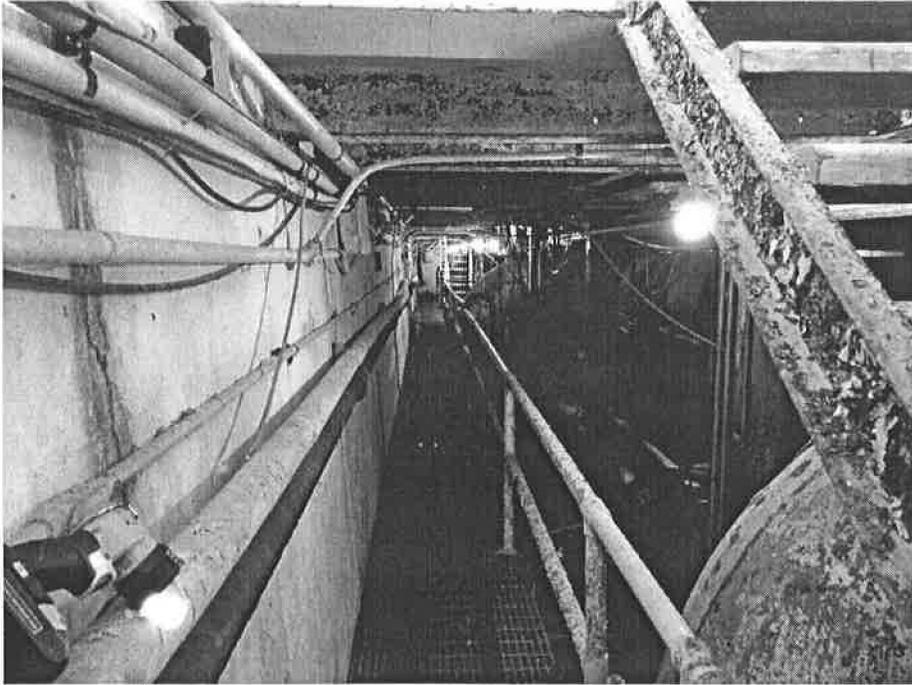
**Photo 4** View of Lead-Based Brown Paint (4.4%wt) on Vertical Structural Beam near Filter #9.



**Photo 5** View of Lead-Based White Paint (0.73-1.1%wt) on Horizontal Structural Beam near Filter#25.



**Photo 6** View of Lead-Based Gray Paint (1.2%wt) on Vertical Structural Beam near Filter #16



**Photo 7** View of Lead-Based Gray and Green Paint (0.52%wt) on Stairways near Filter#16



**Photo 8** View of significantly damaged asbestos-containing (60% Chrysotile) White Pipe TSI under floor deck.

**EMSL Analytical, Inc.**

11931 Industriplex, Suite 100, Baton Rouge, LA 70809

Phone/Fax: (225) 755-1920 / (225) 755-1989

http://www.EMSL.com

batonrougelab@emsl.com

EMSL Order: 251408259

CustomerID: TCNL25

CustomerPO: ET149039

ProjectID:

Attn: **Jason Maloney**  
**Terracon Consultants**  
**524 Elmwood Park Blvd.**  
**Ste. 170**  
**New Orleans, LA 70123**

Phone: (504) 818-3638  
 Fax:  
 Received: 12/18/14 9:45 AM  
 Collected: 12/16/2014

Project: Filter Gallerv/StealB eams-ET149039

**Test Report: Lead in Paint Chips by Flame AAS (SW 846 30508/70008)\***

Client Sample Description	Lab ID	Collected	Analyzed	Lead Concentration
01	251408259-0001	12/16/2014	12/19/2014	6.9 %wt
Site: Gray wall Paint by Filter 22				
02	251408259-0002	12/16/2014	12/19/2014	0.031% wt
Site: white wall Paint by Filter 9				
03	251408259-0003	12/16/2014	12/19/2014	0.30 % wt
Site: Gray stair Paint by Filter 9				
04	251408259-0004	12/16/2014	12/19/2014	3.0 %wt
Site: white Top Beam by Filter 9				
05	251408259-0005	12/16/2014	12/19/2014	1.8 %wt
Site: vertical Beam-Black by Filter 9				
06	251408259-0006	12/16/2014	12/19/2014	4.4 % wt
Site: vertical Beam-Brown by Filter 9				
LBP-07	251408259-0007	12/16/2014	12/19/2014	0.062% wt
Site: white Plaster wall Paint- By Filter 25				
LBP-08	251408259-0008	12/16/2014	12/19/2014	<0.010% wt
Site: yellow rail Paint-By Filter 25				
LBP-09	251408259-0009	12/16/2014	12/19/2014	1.1 %wt
Site: Horizontal Beam by Filter 25				
LBP-10	251408259-0010	12/16/2014	12/19/2014	1.2 %wt
Site: Gray vertical Beam by Filter 16				
LBP-11	251408259-0011	12/16/2014	12/19/2014	0.52 %wt
Site: Green + Gray stairs by Filter 16				
LBP-12	251408259-0012	12/16/2014	12/19/2014	0.73 %wt
Site: white horizontal Beam by Filter 12				
LBP-13	251408259-0013	12/16/2014	12/19/2014	0.040% wt
Site: white plaster wall by back Room Collum				

Brett Heitzmann, Laboratory Manager  
 or other approved signatory

\*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA, Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) results signifies that the analyte was not detected above the reporting limit. Measurement uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise.

Samples analyzed by EMSL Analytical, Inc. Baton Rouge, LA LELAP 01950, A 2LA Accredited Environmental Testing Cert#2 845.03

Initial report from 12/22/2014 08:02:11



# Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

"6'2si |

EMSL ANALYTICAL, INC.  
 11931 INDUSTRIPLEX  
 BLVD. STE. 100  
 BA TON ROUGE, LA  
 70809  
 TEL 225-755-1920

Company: <i>[Handwritten: ...]</i>		EMSL-Bill to: ek, Same U Different If Bill to is Different note Instructions In Comments"		
Street: <i>[Handwritten: ...]</i>		Third Party Bill/Invoice requires written au/horaat/Oil from third party		
City: <i>[Handwritten: ...]</i>	State/Province: <i>[Handwritten: ...]</i>	Zlo/Postal Code: <i>[Handwritten: ...]</i>	Country: <i>[Handwritten: ...]</i>	
Recort To (Name): <i>[Handwritten: ...]</i>		Fax#: <i>[Handwritten: 504 8/P- SB&lt;0]</i>		
Telachone #: <i>[Handwritten: ...]</i>		Email Address: <i>[Handwritten: ...]</i>		
Project Name/Number: <i>[Handwritten: ...]</i>				
Please Provide Results: <input type="checkbox"/> Fax <input type="checkbox"/> Email		Purchase Order: <i>[Handwritten: ...]</i>	U.S. State Samcles Taken: <i>[Handwritten: LA- ...]</i>	
<b>Turnaround Time (TAT) Options** Please Check</b>				
<input type="checkbox"/> 3 Hours	<input type="checkbox"/> 6 Hours	<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 3 Days	
<input type="checkbox"/> 4 Days	<input type="checkbox"/> 5 Days	<input type="checkbox"/> 10 Days		
<small>*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide</small>				
Matrix	Method	Instrument	Reporting Limit	Check
Chips <i>[Handwritten: D mg/cm² 9:.%bvwt.]</i>	SW846-7000B/7420 or AOAC 974.02	Flame Atomic Absorption	0.01%	<i>[Handwritten: if]</i>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 ua/filter	<input type="checkbox"/>
	NIOSH 7300 modified	ICP-AES	0.5 µg/filter	<input type="checkbox"/>
Wipe* <i>[Handwritten: OASTM D nonASTM]</i> <small>"If no box is checked, non-ASTM Wipe is assumed"</small>	SW846-7000B/7420	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	0.5 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7420/SM 31116	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	0.1 ma/L (ppm)	<input type="checkbox"/>
Soil	SW846-7420	Flame Atomic Absorption	40 ma/kg (QJ2m)	<input type="checkbox"/>
	SW846-7421	Graphite Furnace AA	0.3 malka loom)	<input type="checkbox"/>
	SW86-6010B or C	ICP-AES	1 mg/kg (ppm)	<input type="checkbox"/>
Wastewater	SM3111B or SW846-7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 2009	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-AES	1 mo/kg loom)	<input type="checkbox"/>
Drinking Water	EPA200 9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
Other:		Preservation Method <i>[Handwritten: ...]</i>		
Name of Sampler: <i>[Handwritten: ...]</i>		Signature of SamDler: <i>[Handwritten: ...]</i>		
Sample#	Location	Volume/Area	Date/Time Sampled	
<i>[Handwritten: ...]</i>	<i>[Handwritten: ...]</i>	<i>[Handwritten: ...]</i>	<i>[Handwritten: ...]</i>	
<i>[Handwritten: ...]</i>	<i>[Handwritten: ...]</i>	<i>[Handwritten: ...]</i>	<i>[Handwritten: ...]</i>	
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<i>[Handwritten: ...]</i>	<i>[Handwritten: ...]</i>	<i>[Handwritten: ...]</i>	<i>[Handwritten: ...]</i>	
Client Sample #s: <i>[Handwritten: ...]</i>		I Total # of Samples: <i>[Handwritten: 13]</i>		
Relinquished (Client): <i>[Handwritten: ...]</i>	Date: <i>[Handwritten: 12/17/10]</i>	Time: <i>[Handwritten: 7:00]</i>		
Received (Lab): <i>[Handwritten: ...]</i>	Date: <i>[Handwritten: 1/18/11]</i>	Time: <i>[Handwritten: ...]</i>		
Comments: <i>[Handwritten: ...]</i>				

*[Handwritten: 7901 0736 9094]*

**EMSL ORDER ID** (Lao Use *on159*)  
**LEAD (Pb) CHAIN OF CUSTODY**

EMSL ANALYTICAL, INC  
 3 COOPER STREET  
 WESTMONT, NJ 08108  
 PHONE: (856) 858-4800  
 FAX: (856) 858-3899



Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample#	Location	Volume/Area	Date/Time Sampled
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Comments/Special Instruclions:			

*4 of 4*

**EMSL Analytical, Inc.**

11931 Industriplex, Suite 100, Baton Rouge, LA 70809

Phone/Fax: (225) 755-1920 / (225) 755-1989

<http://www.EMSL.com>[batonrougelab@emsl.com](mailto:batonrougelab@emsl.com)

EMSL Order: 251408262

CustomerID: TCNL25

CustomerPO: ET147039

ProjectID:

Attn: **Jason Maloney**  
**Terracon Consultants**  
**524 Elmwood Park Blvd.**  
**Ste.170**  
**New Orleans, LA 70123**

Phone: (504) 818-3638  
 Fax:  
 Received: 12/18/14 9:45 AM  
 Analysis Date: 12/19/2014  
 Collected: 12/16/2014

Project: Filter Gallerv/SteelBeams/ET147039

### Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
ACM-01 <small>251408262--0001</small>	-WhiteTSI	Gray Fibrous Heterogeneous	10% Cellulose	30% Non-fibrous (other)	60% Chrysotile

Analyst(s)

Jamie Laginess (1)

Brett Heitzmann, Laboratory Manager  
 or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gramicidin reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client building materials manufactured with multiple layers (ie linoleum, wallboard, etc) are reported as a single sample. Reporting limits 1%  
 Samples analyzed by EMSL Analytical, Inc. Baton Rouge, LA NVLAP Lab Code 200375-0, L ELAP 01950, T X 300238

Initial report from 12/19/2014 08:23:39



**Asbestos Chain of Custody**  
**EMSL Order Number (Lab Use Only):**

8262

EMSL ANALYTICAL, INC  
 11931 INDUSTRIPLEXBLVD.  
 STE 100  
 BATON ROUGE, LA 70809  
 PHONE: (225) 755-1920  
 FAX (225)755-1989

<b>Compan:</b> Terracon Consultants, Inc.		<b>EMSL-B111 to:</b> 0 Same LJ Different If Bill to Is Different note 1nstructions 1n Comments.	
<b>Street:</b> 524 Elmwood Park Blvd. Ste. 17C		Third Party Bill/Ina raalures written authorization from third uarlv	
<b>Cltv:</b> New Orleans	<b>State/Province:</b> LA	<b>Zlo/Postal Code:</b> 70123	<b>Counrv:</b> Jefferson
<b>Rennrt To (Name):</b> Jason Maloney		<b>Fax#:</b> 504.818.389C	
<b>TeleDhone #:</b> 504.818.3638		<b>Emal Address:</b> jmmaloney@terracon.com	
<b>Prolect Name/Number:</b> V,IKr (?d{-r1 / S h.-..I o:;.,J ol /			
<b>Please Provide Results:</b> <input type="checkbox"/> Fax <input type="checkbox"/> Email <input type="checkbox"/> Purchase Order: TI 'i703 <input type="checkbox"/> U.S. State Samoles Taken: LA-			
<b>Turnaround Time (TAT) Options* - Please Check</b>			
<input type="checkbox"/> 3 Hours	<input type="checkbox"/> 6 Hours	<input type="checkbox"/> 24 Hrs	<input type="checkbox"/> 3 Days
<input type="checkbox"/> 4 Days	<input type="checkbox"/> 5 Days	<input type="checkbox"/> 10 Days	
*Far TEM Air 3 hours/6 hours, pl ase call ahead to schedule. There 1s a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorizar, on form for this serv, ce. Analysis comoleled In accordance with EMSL's Terms end Conditions located in the Analyt/cal Price Guide			
<b>PCM - Air</b>		<b>TEM - Air</b>	
<input type="checkbox"/> NIOSH 7400		<input type="checkbox"/> AHERA 40 CFR, Part 763	
<input type="checkbox"/> w/ OSHA 8hr. TWA		<input type="checkbox"/> NIOSH 7402	
<b>PLM • Bulk (rel. 'lorting limit)</b>		<input type="checkbox"/> EPA Level II	
etf>LM EPA 600/R-93/116 (<1%)		<input type="checkbox"/> ISO 10312	
<input type="checkbox"/> PLM EPA NOB (<1%)		<b>TEM • Bylk</b>	
Point Count		<input type="checkbox"/> TEMEPANOB	
<input type="checkbox"/> 400(<0.25%)01000(<0.1%)		<input type="checkbox"/> NYS NOB 198.4 (non-friable-NY)	
Point Count w/Gravimetric		<input type="checkbox"/> Chatfield SOP	
<input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 {<0.1%}		<input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5	
<input type="checkbox"/> NYS 198.1 {friable in NY}		<b>UM-Wamc; EPA 100.2</b>	
<input type="checkbox"/> NYS 198.6 NOB (non-friable-NY)		Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
<input type="checkbox"/> NIOSH 9002 (<1%)		All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Dnnking	
<input type="checkbox"/> TEM-Dust		<input type="checkbox"/> Microvac - ASTM D 5755	
<input type="checkbox"/> Wipe - ASTM D6480		<input type="checkbox"/> Carpet Sonication {EPA 600/J-93/167}	
<input type="checkbox"/> Soil/Roc!50£ermiculite		<input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity)	
<input type="checkbox"/> PLM CARB 435 - B {0.1% sensitivity}		<input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity)	
<input type="checkbox"/> TEM CARB 435 - C (0.01% sens1tiv1ty)		<input type="checkbox"/> EPA Protocol (Semi-Quantitative)	
<input type="checkbox"/> EPA Protocol (Quantitative)		<b>Other;</b>	
<input type="checkbox"/>		<input type="checkbox"/>	
<b>D Check For Positive Stop - Clearly Identify Homogenous Group</b>			
<b>Samplers Name:</b> ,:i-o.k. , ,c,r.,loe,-t,,		<b>Samplers Signature:</b> Q. ? ,	
<b>Sample#</b>	<b>Sample Description</b>	<b>Volume/Area (Air) HA#(Bulk)</b>	<b>Date/Time SamDled</b>
, 1 -O\	t-,l.i, -r.s-t	z ;_F	/2./16/11(
<b>Client Sam0le # Is):</b> ,l-(,hi 01 -	<b>Total# of Samples:</b> c/		
<b>Ralinquished (Client):</b> 0,,,-n.	<b>Date:</b> /2- (r) I ry	<b>Time:</b> lro0	
<b>Received (Lab/):</b> "12.,,.,/.)	<b>Date:</b> /J /JRJ/4	<b>Time:</b> 9; /., /< ; - , , ,	
<b>CommentsJSpecial Infuctions:</b>			

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STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY

certifies that

**Jason M Maloney**

Has complied with all requirements of the Louisiana Department of Environmental Quality  
and is authorized to perform the duties of

**ASBESTOS INSPECTOR**

Accreditation No. 5.r.1.78742

AI No. Z18142

Date of issuance: 7/28/2014

Expiration 9/28/2015

Authority: Louisiana Department of Environmental Quality, La. R.S. 1025, E. (1)(a) and La. U.S. 2002, (2)(1)  
Enforced by the Department of Environmental Quality.

*Christopher Mayeux*  
Permit Support Specialist  
Office of Environmental Services

LOUISIANA

STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY

certifies that

*Jason M Maloney*

Has complied with all requirements of the Louisiana Department of Environmental Quality  
and is authorized to perform the duties of

Lead Inspector

Accreditation No. 51178742

AI No. 178742

Date of issuance October 13, 2014

Expiration October 8, 2015

Failure to comply with all applicable provisions of La. R.S. 2025.E. (1)(a) and La. R.S. 2025.F. (2)(a)  
may result in civil and/or criminal enforcement actions by the State.

*Christopher A. Maxwell*

Public Participation & Technical Support Division  
Office of Environmental Services

Report of  
Asbestos Abatement Monitoring  
Sycamore Filter Gallery  
8800 South Claiborne Avenue  
New Orleans, Louisiana 70165

Prepared for  
Sewerage and Water Board of New Orleans  
625 St. Joseph Street  
New Orleans, Louisiana 70165

Prepared by  
Professional Service Industries, Inc.  
724 Central Avenue  
Jefferson, Louisiana 70121

March 31, 2015

PSI Project No.: 0259743



March 31, 2015

Ms. Mary C. Dubourg  
Sewerage and Water Board of New Orleans  
625 St. Joseph Street  
New Orleans, LA 70165  
Direct: 504.865.0443  
Email: [mdubourg@swbno.org](mailto:mdubourg@swbno.org)

Attention: Ms. Mary C. Dubourg

Subject: Asbestos Abatement Monitoring Report  
Sycamore Filter Gallery March 26 - 27, 2015  
8800 South Claiborne Avenue  
New Orleans, Louisiana 70165  
PSI Project No.: 0259743

Ladies and Gentlemen:

Professional Service Industries, Inc. (PSI) performed the Asbestos Abatement Monitoring and Contractor Oversight Services that you requested. PSI provided its services in general accordance with our agreement dated March 5, 2015. PSI transmits a PDF with this letter.

PSI thanks you for choosing us as your consultant for this project. Please contact us at 504-733-9411 if you have any questions or we may be of further service.

Respectfully Submitted,

**PROFESSIONAL SERVICE INDUSTRIES, INC.**

Brooke Adams  
Staff Scientist,  
Asbestos Contractor/Supervisor  
LDEQ Accreditation No. 5S184956

Sri Krishnaprasad  
Principal Consultant

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## 1 EXECUTIVE SUMMARY

Professional Service Industries (PSI), Inc., was retained by Sewerage and Water Board of New Orleans to perform Asbestos Air Monitoring and Contractor Oversight Services during the removal of the asbestos-containing building materials (ACBMs) in the Sycamore Filter Gallery, 8800 South Claiborne Avenue, New Orleans, Louisiana 70165.

The project began on March 26, 2015 and was completed on March 27, 2015. Asbestos Abatement Contractors, Inc. of Metairie, Louisiana was contracted to perform the abatement, which included proper removal and disposal of:

- Approximately 15 linear feet of 2-1/2" pipe thermal systems insulation (TSI) from the catwalk and pit area of Sycamore Filter Gallery.

The project consisted of one work area, with a glove bag system, HEPA filtration and appropriate danger signs and barrier tape.

Background, daily and final clearance air samples were collected by PSI's technician and analyzed at PSI's laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and Louisiana Environmental Lab Accreditation Program (LELAP), by Phase Contrast Microscopy (PCM) in accordance with NIOSH Method 7400.

All of the final clearance air samples collected in the work areas indicated airborne fiber concentrations below the accepted EPA/AHERA clearance/reoccupancy level of 0.010 airborne fibers per cubic centimeter ( 0.010 fleec).

At the completion of the project, the work areas were inspected and cleared for reoccupancy.

Based on visual observation and the results of the air monitoring, the asbestos abatement appeared to have been performed in accordance with applicable Federal, State and Local Regulations and Guidelines.

This summary does not contain all the information presented in the full report. The report should be read in its entirety to obtain a more complete understanding of the information provided and to aid in any decisions made or actions taken based on this information.

## **2 INTRODUCTION**

### **2.1 SCOPE OF SERVICES**

Professional Service Industries, Inc. (PSI) was retained by the Sewerage and Water Board of New Orleans to provide Asbestos Air Monitoring and Contractor Oversight Services during the removal of the defined asbestos-containing building materials.

Asbestos Abatement Contractors, Inc. of Metairie, Louisiana performed the removal. Removal of the 2-1/2" pipe thermal systems insulation (TSI) from the catwalk and pit area of Sycamore Filter Gallery was performed using industry standard methods and proper personal protective equipment.

PSI's on-site representative, Mrs. Brooke Adams, provided on-site project management and continuous air monitoring of the abatement activity for this project.

This report is prepared for the exclusive use of Sewerage and Water Board of New Orleans.

### **2.2 AUTHORIZATION**

Authorization to perform this project was given on March 8, 2015, by a signed copy of PSI Proposal Number 0259-146398, between Sewerage and Water Board of New Orleans and PSI.

### **2.3 PURPOSE**

The purpose of the Asbestos Abatement Air Monitoring Services was to help confirm that the airborne fiber concentrations in the ambient air remain within regulatory limits and accepted standards, and to help ensure that the project was conducted in general accordance with standard regulatory practices and requirements.

### **2.4 WARRANTY**

The field and laboratory results reported herein are considered sufficient in detail and scope to determine the presence of ambient airborne fiber concentrations. PSI warrants that the findings contained herein have been prepared in general accordance with accepted professional practices at the time of its preparation, as applied to professionals in the community.

The monitoring and analytical methods have been used to provide the Client with information regarding the presence of ambient airborne fiber concentrations in the facility at the time of the work. The report is also limited to the information available from the Client at the time it was prepared. There is a possibility that conditions may

exist which could not be identified within the scope of the Air Monitoring Services or which were not apparent during the work.

This asbestos related activity was performed for the sole benefit of Sewerage and Water Board of New Orleans and may not be relied upon by any other person or entity without express written permission of the client and PSI. The information and reported results in this report is based on limited sampling events for specific locations that were scheduled by the client for renovation.

No other warranties are implied or expressed.

### **3 METHODOLOGY**

#### **3.1 ABATEMENT METHODOLOGY**

The abatement contractor's workers were certified and trained according to applicable guidelines for the removal method and wore the appropriate clothing and protective equipment during the removal, including HEPA filtered P-100 half-mask respirators, "tyvek" coveralls, goggles, boots and gloves.

The area was regulated with danger signs and barrier tape. Good housekeeping practices were utilized throughout the project. The abatement contractor monitored the workers for personal exposure limits during removal activities.

#### **3.2 SAMPLING METHODOLOGY**

Air sampling pumps were calibrated before and after sampling with the filter cassette assemblies in line. Sampling was conducted using 25-mm cassettes with 50-mm extension cowls (electrically conductive) using mixed cellulose ester, 0.8 um filters for PCM sample analysis. Flow measurement was performed with a rotameter. Background and daily air samples were collected using low and/or high volume sampling pumps at flow rates between 2.0 and 15.0 liters per minute (LPM). The final clearance air samples were collected using high volume sampling pumps at a flow rate between 12.0 and 15.0 LPM, with a minimum volume of 1200 liters per sample.

#### **3.3 ANALYTICAL METHODOLOGY**

Background, daily and final clearance air samples were analyzed at PSI's laboratory in Pittsburg, Pennsylvania via Phase Contrast Microscopy (PCM) in accordance with the National Institute for Occupational Safety and Health (NIOSH) 7400 Method. PSI's laboratory is accredited for PCM fiber analysis by the National Voluntary Laboratory Accreditation Program (NVLAP) and Louisiana Environmental Lab Accreditation Program (LELAP),

Copies of the analytical reports are included in Appendix A.

## 4 CONCLUSION

Asbestos Abatement Contractors, Inc. was responsible for the waste manifest and transportation of the waste. The waste was disposed of at Colonial Landfill, 5328 Highway 70, Sorrento, Louisiana. Proper disposal of waste, including completion of waste manifest by transporter and disposal site, was conducted by the contractor.

Throughout the duration of the project Asbestos Abatement Contractors, Inc. personnel used approved work practices and operated in compliance with laws and requirements set forth by the regulations and project specifications.

The daily air samples collected outside of the work areas indicated airborne fiber concentrations were not below the accepted clearancelreoccupancy level of 0.010 flee. Due to the nature of the environment and the on-going work in the area resulting in the disturbance of fibers, this is not an indication of asbestos contamination.

All of the final clearance air samples collected in the work areas indicated airborne fiber concentrations below the accepted 40 CFR 763, Subpart E EPA/AHERA clearancelreoccupancy level of :S:0.010 airborne fibers per cubic centimeter (:S:0.010 flee).

At the completion of the project, the work areas were inspected and cleared for reoccupancy.

Based on visual observation and the results of the air monitoring, the asbestos abatement appeared to have been performed in accordance with Federal, State and Local Regulations and Guidelines.

Copies of the preliminary background, daily, and final clearance air sample analytical results can be found in Appendix A Daily Project Logs, which contain summaries of each day's activities, can be found in Appendix B. Appendix C contains PSI's certifications and Licenses.

APPENDIX A - PCM "REPORT OF AIR SAMPLE ANALYSIS"

**Airborne Fiber Concentration Report of Analysis**

TESTED FOR: **PSI, Inc**  
 11950 Industriplex Boulevard  
 Baton Rouge, LA 70809  
 Attn: Brooke Adams

Project ID: 0259743  
 NOLA Sewerage & Water Board  
 Sycamore Filter Gallery  
 8800 South Clairborne  
 New Orleans, LA

Date Received: 3/30/2015      Date Completed: 3/30/2015      Date Reported: 3/31/2015

**Analyst: CM**      **Work Order: 1503626**      Page: 1 of 1

**Sample Type:** Air      **Graticle Area:** 0.00785 mm<sup>2</sup>  
**Method Reference:** NIOSH 7400, Issue 2, 8/15/1994      **LOD:** 5.5 fibers/100 fields

Lab Sample#	Client Sample #	Collection Date	Air			Fiber Concentration	
			Volume (L)	Fiber/ Fields	Fibers/mm <sup>2</sup>	LCD (flee)	(fibers/cc)
001	0259743-01	3/26/2015	1260	4/100	<LOD	0.0021	<LOD
002	0259743-02	3/26/2015	1260	3.5/100	<LOD	0.0021	<LOD
003	0259743-03	3/26/2015	1155	4/100	<LOD	0.0023	<LOD
004	FLD. BLANK	3/26/2015	0	0/100	<LOD		
005	LAB BLANK	3/26/2015	0	0/100	<LOD		

The verifiability of the laboratory results is limited to the reported fibers per millimeter square. The attached Chain of Custody is incorporated into and becomes a part of the final report. Samples are in good condition upon receipt unless otherwise noted. Results relate only to the items tested. Results have been corrected for blank counts.

*Note: No part of this report may be reproduced, except in full, without the written permission of PSI.*

Intralaboratory Cv Ranges  
 fibers per 100 fields  
 5-20-- 0.27  
 >20-50 - 0.23  
 >50-100- 0.24

Respectfully submitted,  
 PSI, Inc.



Approved Signatory  
 Mary Cantley

A/HA Lab ID# 100373.





**Airborne Fiber Concentration Report of Analysis**

TESTED FOR: **PSI, Inc**  
 11950 Industriplex Boulevard  
 Baton Rouge, LA 70809  
 Attn: Allen Bentley

Project ID: 0259743  
 NOLA Sewerage & Water Board  
 Sycamore Filter Gallery  
 8800 South Claiborne, NOLA

Date Received: 3/30/2015      Date Completed: 3/30/2015      Date Reported: 3/31/2015

**Analyst:** CM

**Work Order:** 1503627

Page: 1 of 1

**Sample Type:** Air

**Graticle Area:** 0.00785 mm<sup>2</sup>

**Method Reference:** NIOSH 7400, Issue 2, 8/15/1994

**LOD:** 5.5 fibers/100 fields

Lab Sample#	Client Sample #	Collection Date	Air Volume (L)	Fiber Concentration			
				Fiber/ Fields	Fibers/mm <sup>2</sup>	LOD (flee)	(fibers/cc)
001	0259743-04	3/27/2015	400	11.5/100	15	0.0067	0.0140
002	0259743-05	3/27/2015	400	4/100	<LOO	0.0067	<LOO
003	0259743-06	3/27/2015	400	9/100	11	0.0067	0.0110
004	0259743-07	3/27/2015	400	11/100	14	0.0067	0.0130
005	FLO. BLANK	3/27/2015	0	0/100	<LOO		

The verifiability of the laboratory results is limited to the reported fibers per millimeter square. The attached Chain of Custody is incorporated into and becomes a part of the final report. Samples are in good condition upon receipt unless otherwise noted. Results relate only to the items tested. Results have been corrected for blank counts.

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Intralaboratory Cv Ranges  
 fibers per 100 fields  
 5-20 --- 0.27  
 >20-50 --- 0.23  
 >50-100- 0.24

Respectfully submitted,  
 PSI, Inc.



Approved Signatory  
 Mary Cantley

A/HA Lab ID# 100373.

*1 - - - - - 1001*  
NOLA Sewerage & Water Board  
(Sycamore Filter Gallery)

4.SBESTOS SAMPLE CHA.IZV OF CUSTODY

FILE NUMBER: Og5'3J43

SAMJ>LE DATE: 63\371\6

SAMPLE NUMBER:  
096\IY?:::04

259743 -05

259743 -06

259743 -07

Field Blank

COLLECTOR'S NAME/TITLE: del'Aj.GJn'.b / r) \SAC

COLLECTOR'S SIGNATURE: Λ'.\Ah=

ANALYSIS REQUIRED:

PL'NI    BULK    PCM    AIR    TEM   

FURTHER INSTRUCTIONS: '3- 1/2lfY\ Om v:0\ t: > \-0  
LABORATORY: J bci:6Y-o Sidarns fil oso, Qorr-

STREET ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

RECEIVER NAME/TITLE: J DATE RECEIPT: 312 bji::: fD.'2.:2  
RECEIVER SIGNATURE: J f7 1 j- . /JI-

AC&PT.NCC: BY RECEIVER ICIV'OWI.EP9c.S n-rc' LEGAL fl\$PONSllUTY  
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EP., AND LA. OEO/OR OTHER COGi'i17MI STATE/LOCAL AGENCY  
REGULATIONS ANO GUTOANCE'.

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Date: 3/9/71

Location: M-ti

Area: Perimeter  
 Operation: Air Monitoring  
 Sample Media: PCM 25 mm Cass.

*Information To Build On*  
 Consulting: fhslng

Collected By: fu: o¥Q, v'1\$

Analyzed By: \_\_\_\_\_

Analytical Method: NIOSH 7400

Calibration Method: Rotameter

Calibration No: \_\_\_\_\_

Lot No: 34...-r--=5...-=-7=-----

Asbestos Air Monitoring Data Sheet

Sample Number	Pump Number	Time		Bopped Time (min)	Flow Rate (l/min)	Sample Volume (liters)	Calibration		PPE	Sample Type (Personal, area, etc.)	Worker ID	Anal. Result	
		On	Off				Pre	Post				F/cc	BhrTWA
1.6-d	1	19:00	19:05	9	9	URM	Q	Q	-	AREA	--	--	
43-()	14	11:00	11:05	6CU	bl	urY"	Q	Q		L<			
				SCO	R	L411"	Q	Q		II			

Sample Number	Sample Information	Weather Conditions	Winds	Fields	Volume
-dt	...	...	...	...	...
-07	...	Wind Out The	...	...	...
	...	Humidity	Low (Mo) High	...	...

EPA AHERA re-occupancy level is 0.010 fibers per cubic centimeter f/ce

**Airborne Fiber Concentration Report of Analysis**

TESTED FOR: **PSI, Inc**  
 11950 Industriplex Boulevard  
 Baton Rouge, LA 70809  
 Attn: Allen Bentley

Project ID: **0259743**  
**NOLA Sewerage & Water B**  
**Sycamore Filter Gallery**  
**8800 South Claiborne,**  
**NOLA**

Date Received: 3/30/2015      Date Completed: 3/30/2015      Date Reported: 3/30/2015

Analyst: CM      Work Order: 1503620      Page: 1 of 1

Sample Type: Air      Graticle Area: 0.00785 mm<sup>2</sup>

Method Reference: NIOSH 7400, Issue 2, 8/15/1994      LOD: 5.5 fibers/100 fields

Lab Sample#	Client Sample #	Collection Date	Air Volume (L)	Fiber/ Fields	Fibers/mm <sup>2</sup>	Fiber Concentration	
						LOD (flee)	(fibers/cc)
001	0259743-08	3/27/2015	1320	6/100	7.6	0.0020	0.0022
002	0259743-09	3/27/2015	1320	6/100	7.6	0.0020	0.0022
003	0259743-10	3/27/2015	1320	5/100	<LOO	0.0020	<LOO
004	FLO. BLANK	3/27/2015	0	0/100	<LOO		

The verifiability of the laboratory results is limited to the reported fibers per millimeter square. The attached Chain of Custody is incorporated into and becomes a part of the final report. Samples are in good condition upon receipt unless otherwise noted. Results relate only to the items tested. Results have been corrected for blank counts.

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Intralaboratory Cv Ranges  
 fibers per 100 fields  
 5-20 -- 0.27  
 >20-50 -- 0.23  
 >50-100 - 0.24

Respectfully submitted,  
 PSI, Inc.



Approved Signatory  
 Melanie Smith

A/HA Lab ID# 100373

**[P.]** • /b7fo1 11atio11  
• .ToBuzldOn  
Engineering • Consulting • Testing

"-'0\J+ +- WCU-Qx-  
W%<&. \ec. Oil

307620

ASBESTOS SAMPLE CH\_4JN OF CUSTODY

PROJECT  
ID NUMBER: 0259743 SAMPLE DATE: 3/26/15  
30

SAMPLE NUMBER:  
0259743-810 PCM Clearance

Co: ffi14o- CE\ fC,m \_\_\_\_\_ L = \_\_\_\_\_

0o{>31Y3..&' \0 fem'''-' . C)L=...

\Eld:?,\ \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

COLLECTOR'S NAME/TITLE: U a ,, " \ - t

COLLECTOR'S SIGNATURE: 1.0 'v\b

PLIVI\_ BULK\_ PCM 3 AIR\_ TEM\_

FURTHER INSTRUCTIONS: A.QOJSP e.n.:()J\ ffi:i \s \e. - QcUxL.\ @.. \lf?A.(t

LABORATORY: \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

RECEIVER NAME/TITLE 77 DATE OF RECEIPT: \_\_\_\_\_

RECEIVER SIGNATURE: -t) ; S- /

ACCEPTANCE BY RECEIVER ACKNOWLEDGES THE LEGAL RESPONSIBILITY  
TO PROPERLY DISPOSE OF AC. RESIDU: IN ACCORDANCE WITH CUR.R.E.P.  
EPA AND LA OEO IOP, OTH&P. COGNIZAL I' S'TAT HLOC: AL AGENCY  
REGULATIONS AND GUIDANCE

RETURN TO: CECM/EO COPY 10

3m ictl1L D{Qu  
--S OS (IB \:M\_,J

Date: 03/27/15  
 Job No: 0259743  
 Location: 8800 South Claiborne, NOLA  
 Area: Perimeter Clearances  
 Operation: Air Monitoring  
 Sample Media: PCM 25 mm Cass.



Collected By: Brooke Adams  
 Analyzed By: \_\_\_\_\_  
 Analytical Method: Niosh 7400  
 Calibration Method: Rolameter  
 Calibration No: \_\_\_\_\_  
 Lot No: 34517

Asbestos Air Monitoring Data Sheet

Sample Number	Pump Number	Time On	Time Off	Elapsed Time (min)	Flow Rate (lpm)	Sample Volume (L)	Coll. Pre	Coll. Post	PPE	Sample Type	Worker ID	Anal. Results F/cc	Results \$hr TWA
1	11530C	0:30	9:50	110	1.0	110	1	1		REA			
2	11530C	0:30	9:50	110	1.0	110	1	1		REA			
3	11530C	0:30	9:50	110	1.0	110	1	1		REA			
4	11530C	0:30	9:50	110	1.0	110	1	1		REA			
5	11530C	0:30	9:50	110	1.0	110	1	1		REA			
6	11530C	0:30	9:50	110	1.0	110	1	1		REA			
7	11530C	0:30	9:50	110	1.0	110	1	1		REA			
8	11530C	0:30	9:50	110	1.0	110	1	1		REA			
9	11530C	0:30	9:50	110	1.0	110	1	1		REA			
10	11530C	0:30	9:50	110	1.0	110	1	1		REA			
11	11530C	0:30	9:50	110	1.0	110	1	1		REA			
12	11530C	0:30	9:50	110	1.0	110	1	1		REA			
13	11530C	0:30	9:50	110	1.0	110	1	1		REA			
14	11530C	0:30	9:50	110	1.0	110	1	1		REA			
15	11530C	0:30	9:50	110	1.0	110	1	1		REA			
16	11530C	0:30	9:50	110	1.0	110	1	1		REA			
17	11530C	0:30	9:50	110	1.0	110	1	1		REA			
18	11530C	0:30	9:50	110	1.0	110	1	1		REA			
19	11530C	0:30	9:50	110	1.0	110	1	1		REA			
20	11530C	0:30	9:50	110	1.0	110	1	1		REA			
21	11530C	0:30	9:50	110	1.0	110	1	1		REA			
22	11530C	0:30	9:50	110	1.0	110	1	1		REA			
23	11530C	0:30	9:50	110	1.0	110	1	1		REA			
24	11530C	0:30	9:50	110	1.0	110	1	1		REA			
25	11530C	0:30	9:50	110	1.0	110	1	1		REA			
26	11530C	0:30	9:50	110	1.0	110	1	1		REA			
27	11530C	0:30	9:50	110	1.0	110	1	1		REA			
28	11530C	0:30	9:50	110	1.0	110	1	1		REA			
29	11530C	0:30	9:50	110	1.0	110	1	1		REA			
30	11530C	0:30	9:50	110	1.0	110	1	1		REA			
31	11530C	0:30	9:50	110	1.0	110	1	1		REA			
32	11530C	0:30	9:50	110	1.0	110	1	1		REA			
33	11530C	0:30	9:50	110	1.0	110	1	1		REA			
34	11530C	0:30	9:50	110	1.0	110	1	1		REA			
35	11530C	0:30	9:50	110	1.0	110	1	1		REA			
36	11530C	0:30	9:50	110	1.0	110	1	1		REA			
37	11530C	0:30	9:50	110	1.0	110	1	1		REA			
38	11530C	0:30	9:50	110	1.0	110	1	1		REA			
39	11530C	0:30	9:50	110	1.0	110	1	1		REA			
40	11530C	0:30	9:50	110	1.0	110	1	1		REA			
41	11530C	0:30	9:50	110	1.0	110	1	1		REA			
42	11530C	0:30	9:50	110	1.0	110	1	1		REA			
43	11530C	0:30	9:50	110	1.0	110	1	1		REA			
44	11530C	0:30	9:50	110	1.0	110	1	1		REA			
45	11530C	0:30	9:50	110	1.0	110	1	1		REA			
46	11530C	0:30	9:50	110	1.0	110	1	1		REA			
47	11530C	0:30	9:50	110	1.0	110	1	1		REA			
48	11530C	0:30	9:50	110	1.0	110	1	1		REA			
49	11530C	0:30	9:50	110	1.0	110	1	1		REA			
50	11530C	0:30	9:50	110	1.0	110	1	1		REA			

EPA AHERA re-occupancy level is 0.010 fibers per cubic centimeter (f/cc)

## APPENDIX B - PSI DAILY PROJECT LOGS

# Daily Field Report

0259743

**REMARKS:**

08:30 I, Brooke Adams, arrived on-site and signed in at the security station.

08:49 Mrs. Mary C. B. Dubourg escorted me to the Sycamore Filter Gallery. Mrs. Dubourg showed me the area to be abated.

09:15 I began to set up pumps for baselines. I calibrated 3 high flow pumps to 12lpm and turned on the pumps for 105 minutes.

09:25 I started the pumps.

10:00 I checked the pumps.

10:30 I checked the pumps.

11:10 I stopped the pumps & post cal'd

11:30 I signed out at the engineering bldg & departed site.

**TM**

INSPECTOR SIGNATURE: \_\_\_\_\_  
PRINT NAME: E:rrc)\<..e (M.S

DATE: 031@01\

LA DEQ SUPERVISOR#: \$)) L\956

## Daily Field Report

c0 7/13

**REMARKS:**

8:00 I, Brooke Adams, arrived on-site + signed in at the engineering bldg.

8:10 I began to pre-calibrate pumps to 21pm.

8:45 The abatement crew arrives on-site

9:05 I turned on the ~~the~~ pumps

note \* pump 16 is situated by open space above catwalk. There is significant rust/dirt piles near the pump. I set the pump as far away as possible from said piles. However, there is significant foot traffic that may skew the analysis.

I observed the contractors using proper PPE (goggles, gloves, boots). For the insulation that remains on the pipe they are using glove bag method. For the insulation that has fallen on the ground + in the pit with water 2' plus deep, it will be picked up, put into poly bag + hepa vac surfaces.

10:05 I checked pump 16.

11:05 I checked pump 16 + contractors progress

11:48 The abatement crew began to shut down + load up equipment as work was completed

INSPECTOR SIGNATURE:

Brooke Adams

DATE:

3/27/13

PRINT NAME:

Brooke Adams

LA DEQ SUPERVISOR #:

# Daily Field Report

Sycamore F, 1/26 Cn \ tr

## REMARKS:

12:00 I checked work area for cleanliness. It appeared as though all remaining insulation debris had been removed. Mr. Alfredo said he would wait for Mrs. Mary to return before departing site.

12:30 I started clearance pumps (3) at 12pm.

12:45 Mr. Alfredo <sup>+crew</sup> departed site. I called Mrs. Mary Dubourg to let her know they were completed w/ the job. She said they could leave.

1:15 Mrs. Mary Dubourg came to see the completed job. She was happy with the work.

2:20 I turned off the high flow pumps

2:45 I signed out + departed site.

AAC - Asbestos Abatement Contractors

Contractor/Supervisor - Alfredo Benilla exp 12/20/15 5510266

Worker Miguel E. Mayorga Smith (waiting on card from DEQ) 107755

Worker Jorge Luis Cruz 9/28/15 SW#67391

INSPECTOR SIGNATURE: Breanne Adams DATE: 1/26/15

PRINT NAME= Breanne Adams LA DEQ SUPERVISOR # = SS,ILA:(...

## APPENDIX C - PSI CERTIFICATIONS AND LICENSES

STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY



Has complied with all requirements of the Louisiana Department of Environmental Quality  
and is authorized to perform the duties of

**ASBESTOS CONTRACTOR/SUPERVISOR**

Accreditation No. 5S184956

AI No. 184956

Date of Issuance 2/2/2024

Expiration 2/2/2025

to comply with the provisions of Louisiana R.S. 225:10 and Louisiana R.S. 225:10.2(D)  
in the event of a civil or criminal offense under the provisions of the Statute.

**PCYS**  
Louisiana Department of Environmental Services  
Office of Environmental Services



STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Is hereby granting a Louisiana Environmental Laboratory Accreditation to



**Professional Service Industries Inc  
850 Poplar St  
Pittsburgh, Pennsylvania 15220**

**,Agency Interest No. 939U',**

According to the Louisiana Administrative Code, Title 33, Part 3, Subpart 3, LABORATORY ACCREDITATION, the State of Louisiana formally recognizes that the laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed in the attachment.

The laboratory agrees to perform all analyses listed on its scope of accreditation according to the Part I, Subpart 3 requirements and agrees to adapt to any changes in the requirements. It also acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part I and the 2M9 TNJ standards by which the laboratory was assessed. Please contact the Department of Environmental Quality, Louisiana Environmental Laboratory Accreditation Program (LELAP) to verify the laboratory's scope of accreditation and accreditation status.

Accreditation by the State of Louisiana is not an endorsement or a guarantee of validity of the data generated by the laboratory. To be accredited initially and maintain accreditation, the laboratory agrees to participate in two single-blind, single-concentration PT studies, where available, per year for each field of testing for which it seeks accreditation or maintains accreditation as required in LAC 33:14711.

**UM**

Lourdes Iturralde, Administrator  
Notifications and Accreditations Section  
Public Participation and Permit Support Services Division

**Certificate Number: 04054**

**Expiration Date: June 30, 2015  
Issued On: July 1, 2014**



STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
Issue Date: July 1, 2014

Professional Service Industries Inc  
AI Number: 93911  
Expiration Date: June 30, 2015

850 Poplar St, Pittsburgh, Pennsylvania 15220

Certificate Number: 04054

**Air Emissions**

Analyte	Method Name	Method Code	T	AB
100131 - Airborne Asbestos	NIOSH 7402, Rev.2	2016	State	NY
100131 - Airborne Asbestos	40 CFR Part 763, Subpart E, Appendix A (Mandatory TEM)	2062	State	NY
100131 - Airborne Asbestos	40 CFR Part 763, Subpart E, Appendix A (Non-mandatory TEM)	2086	State	NY
1075 - Lead	40 CFR Part 50 1984 App G	2198	NELAP	NY
100206 - Asbestos and Other Fibers	NIOSH 7400, Rev.3	90018001	AIHA	LA
100173 - Asbestos by Phase Contrast Microscopy	NIOSH 7400, Rev.3	90018001	AIHA	LA

**Non Potable Water**

Analyte	Method Name	Method Code	T	AB
NONE	NONE	NONE	NONE	NONE

**Solid Chemical Materials**

Analyte	Method Name	Method Code	T	AB
100095 - Asbestos in Bulk Insulation	EPA 600/M4-82-020 (PLM)	1488	State	NY
100030 - Asbestos in Friable Material	EPA 600/M4-82-020 (PLM)	<b>1488</b>	State	<b>NY</b>
100171 - Asbestos by Transmission Electron Microscopy	NYS DOH ELAP 198.4	2015	State	NY
1075 - Lead	40 CFR Part 50 1984 App G	2198	State	NY
100172 - Asbestos by Polarized Light Microscopy	NYS DOH ELAP 198.6	2223	State	NY
100243 - Asbestos in Non-Friable Material	EPA 600/M4-82-020 (PLM, Item 198.6)	2456	State	<b>NY</b>
100243 - Asbestos in Non-Friable Material	EPA 600/M4-82-020 (TEM, Item 198.4)	2457	State	NY
100007 - Acid Digestion of Sediments, Sludges, and soils	EPA 3050B	10135601	State	<b>NY</b>
100231 - Lead in Paint	EPA 7000B	10157707	State	<b>NY</b>
100233 - Lead in Soil	EPA 7000B	10157707	State	<b>NY</b>
100232 - Lead in Wipes	EPA 7000B	10157707	State	NY
1520 - Asbestos	EPA 600/R-93/116	10294583	State	NY
100172 - Asbestos by Polarized Light Microscopy	EPA 600/R-93/116	10294583	State	NY
100171 - Asbestos by Transmission Electron Microscopy	EPA 600/R-93/116	10294583	State	NY
100095 - Asbestos in Bulk Insulation	EPA 600/R-93/116	10294583	State	NY

**Biological Tissue**

Analyte	Method Name	Method Code	T	AB
NONE	NONE	NONE	NONE	NONE

Clients and Customers are urged to verify the laboratory's current certification status with the Louisiana Environmental Laboratory Accreditation Program.



® **National Voluntary**  
**Laboratory Accreditation Program**

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SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

**PSI**

850 Poplar Street  
 Pittsburgh, PA 15220  
 Ms. Catherine McNamee  
 Phone: 412-922-4010 x286 Fax: 412-922-4014  
 E-Mail: [cathy.mcnamee@psiusa.com](mailto:cathy.mcnamee@psiusa.com)  
 URL: <http://www.psiusa.com>

**AIRBORNE ASBESTOS FIBER ANALYSIS (TEM)**

NVLAP LAB CODE 101350-0

*NVLAP Code*      *Designation / Description*

18/A02      U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Detennine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

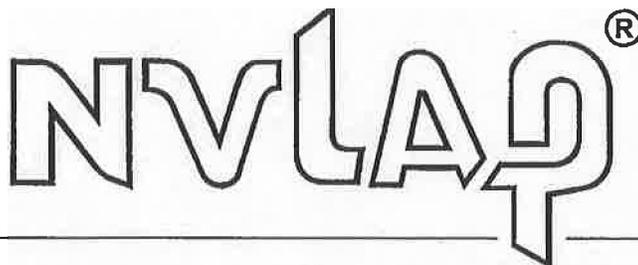
2014-07-01 through 2015-06-30

*Effective dates*

11f...-- 12.,(uJ)

*For the National Institute of Standards and Technology*

United States Department of Commerce  
National Institute of Standards and Technology



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## Certificate of Accreditation to ISO/IEC 17025:2005

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NVLAP LAB CODE: 101350-0

**PSI**  
Pittsburgh, PA

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for.*

### **AIRBORNE ASBESTOS FIBER ANALYSIS**

*This laboratory is accredited in accordance with the recognized International Standard /ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

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2014-07-01 through 2015-06-30

*Effective dates*



A handwritten signature in black ink, appearing to read "Michael R. Muel".

*For the National Institute of Standards and Technology*