

METRO EAST SANITARY DISTRICT

**Lansdowne Interceptor Sewer
Improvements Project**

IEPA PWSLP# L17-5518

May 2019

Job No. E-180104



2100 State Street
Granite City, IL 62040
(618) 877-1400

100 North Research Dr.
Edwardsville, IL 62025
(618) 659-0900

330 North 4th Street, Ste. 200
St. Louis, MO 63102
(314) 241-4444

111 Burlington Ave., Ste. 100
Lisle, IL 60532
(630) 441-7081

METRO EAST SANITARY DISTRICT
LANSLOWNE INTERCEPTOR SEWER IMPROVEMENTS PROJECT

TABLE OF CONTENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>PAGES</u>
Documentation Required for Project to be Constructed Under the IEPA Public Water Supply Loan Program (PWSLP)		
	• Loan Applicant's Certification of Plans/Specifications Compliance with PWSLP Rules -----	Page 1 of 70
	• Advertisement for Bids -----	Page 6 of 70
	• Information for Bidders -----	Page 7 of 70
	• Bid Form or Proposal with Davis-Bacon Wage Act Requirements -----	Page 9 of 70
	• Bid Bond -----	Page 19 of 70
	• Agreement -----	Page 21 of 70
	• Performance Bond -----	Page 24 of 70
	• Payment Bond -----	Page 26 of 70
	• Notice of Intent to Award -----	Page 28 of 70
	• Notice of Award -----	Page 29 of 70
	• Notice to Proceed -----	Page 30 of 70
	• Change Order -----	Page 31 of 70
	• Affirmative Action for Equal Employment Opportunity (E.O. 11246) -----	Page 32 of 70
	• U.S.EPA Certification of Nonsegregated Facilities -----	Page 44 of 70
	• Nondiscrimination in Employment Form -----	Page 45 of 70
	• Certification Regarding Debarment, Suspension, and Other Responsibility Matters -----	Page 46 of 70
	• Construction Contracts of Loan Recipient and Other Sections from "Procedures for Issuing Loans from the Water Pollution Control Supply Loan Program" -----	Page 48 of 70
	• Bidder Certification Regarding Compliance with Article 33E "Criminal Code of 1961" -----	Page 52 of 70
	• Disadvantage Business Participation Specifications (DBE) -----	Page 53 of 70
	• Suggested DBE Advertisement for Construction Contractors -----	Page 56 of 70
	• Summary of DBE Requirements for Bidders -----	Page 57 of 70
	• DBE Forms for Bidders -----	Page 58 of 70
	• Use of American Iron and Steel -----	Page 61 of 70
	• Information Regarding the Use of American Iron and Steel -----	Page 62 of 70
	• Employment of Illinois Workers on Public Works Act -----	Page 66 of 70
	• Illinois Works Jobs Program Act – Apprenticeship Initiative Info -----	Page 67 of 70

<u>NUMBER</u>	<u>TITLE</u>	<u>PAGES</u>
---------------	--------------	--------------

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

00 72 00	General Conditions -----	68
00 73 00	Supplemental General Conditions -----	7

<u>NUMBER</u>	<u>TITLE</u>	<u>PAGES</u>
---------------	--------------	--------------

DIVISION 01 GENERAL REQUIREMENTS

01 11 00	Summary of Work.....	1
01 22 13	Unit Price Measurement and Payment.....	4
01 33 23	Shop Drawings, Product Data & Samples.....	3

DIVISION 33 UTILITIES

33.01.30.14	Sewer Cleaning and CCTV Inspection.....	9
33 01 30.15	Sewer Flow Control	3
33 01 30.72	Cured-In-Place Pipe (CIPP)	10
33 01 30.83	Polymer Lining for Concrete Manholes	4

SEWER INSPECTION REPORT	14
-------------------------------	----

Illinois Environmental Protection Agency - Water Pollution Control Loan Program (WPCLP)
Loan Applicant's Certification of Plans/Specifications Compliance with WPCLP Rules
(Rev 10/31/2021)

Loan Applicant: Metro East Sanitary District

L17# 5518

Project Description:

Lansdowne Interceptor Improvements

Section I – Loan Program Requirements

Provide page number(s) for location of the information below in the bidding documents/specifications.

Page #'s

1. 6 Advertisement for Bids includes notification to bidders that procurement is subject to regulations contained in the IEPA loan program rules, the Davis-Bacon Act (40 USC 276a through 276a-5), the Employment of IL Workers on Public Works Act, IL Works Jobs Program Act Apprenticeship Initiative, and DBE Policy per 40 CFR Part 33, as amended, and the "Use of American Iron and Steel" requirements as originally contained in Section 436 of the Consolidated Appropriations Act, 2014. [Loan Rules Section 365.620(b)].
2. 7 Sealed Bids are required.
3. 7 Public bid opening will be held.
4. 8 Method of bid evaluation in accordance with Section 365.620(c)(3).
5. 8 Criteria for evaluating bidders in accordance with Section 365.620(c)(5).
6. 7 Bidders can modify/withdraw bids prior to opening.
7. 8 Award shall be made to the low, responsive, responsible bidder in accordance with Section 365.620(e)(3)(4).
8. 9 Non-collusion and certification statement in accordance with Section 365.620(c)(6). Language is attached. See attached page 9, I and II.
9. 7 Minimum 5% bid bond in accordance with Section 365.620(e)(2)(f).
10. 7 100% performance/payment bonds in accordance with Section 365.420(b)(1).
11. 32 Equal Opportunity Clauses and Information per federal Executive Order 11246.
12. 50 Disadvantaged Business Enterprise (DBE) provisions per 40 CFR Part 33.
13. 58-60 DBE specifications and forms. A DBE guidance package is available on the IEPA website.
14. 45 The Non-Discrimination Clause is contained within the contract 365.620(f)(8). See Item 7, page 22 of the attached document.
15. 16 Davis-Bacon Wage Act language, wages and clauses are included in the bidding documents and specifications. Contractor(s) shall pay prevailing wages at rates not less than those prevailing under the Davis-Bacon Wage Act.
16. 48 Change orders: method for handling is in accordance with Section 365.420(b)(2).
17. 48 Audit; access to records provision in accordance with Section 365.620(f)(1) (A-G).
18. 50 Covenant against contingent fees provision in accordance with Section 365.620(f)(2).
19. 46 "Certification Regarding Debarment, Suspension and other Responsibility Matters USEPA Form 5700-49" or equivalent contract language in accordance Section 365.620(f)(5).
20. 51 Contracts for Subcontractors will be in accordance with Section 365.620(g).
21. 51 Contractor Bankruptcy clause in accordance with Section 365.620(h).
22. 51 Remedies per Section 365.640(c).
23. 51 Access to work site allowed per Section 365.620(i).
24. 9 Substantial Completion (project is operational) specified: 240 calendar days
25. 9 Final Completion (if applicable) specified: 240 calendar days
26. 52 Certification regarding Compliance with Criminal Code of 2012 [Section 365.620(c)(6)(A)(iii)].
27. 28 Notice of Intent to Award Form [Section 365.620(e)(2)(E)].

- 28. 29 Notice of Award Form.
- 29. 30 Notice to Proceed Form.
- 30. 31 Change Order Form.
- 31. 44 Certification of Nonsegregated Facilities Form [Section 365.620(f)(6)].
- 32. 45 Nondiscrimination in Employment Notice per federal Executive Order 11246.
- 33. 46 Certification Regarding Debarment, Suspension, & other Responsibility Matters [Section 365.620(f)(5)].
- 34. N/A Experience Clause requirements, if utilized, are justified in submittal dated _____.
[Section 365.620(c)(5)].
- 35. 61 Certification that all iron & steel products used in the project are produced in the United States per "The Consolidated Appropriations Act, 2014" [Section 365.620(f)(7)].
- 36. 66 Employment of IL Workers on Public Works Act Certification [30 ILCS 570].
- 37. 67 IL Works Jobs Program Act (Apprenticeship Initiative) Information [30 ILCS 559/20/20-1]
- 38. N/A Pre-negotiated prices if utilized. The loan rules require formal advertising and competitive bidding of construction contracts. Items must be procured in accordance with Section 365.620.

Section II – Approved Scope of Work

The WPCLP can only provide funding for the project scope approved in the Project Plan. ALL changes must be explained and justified in writing and receive Agency approval. Changes to the approved scope of work may require a Project Plan amendment.

YES NO Plans and specifications have been prepared consistent with the Project Plan approved by
(Circle One) the Agency in a letter dated Nov. 15, 2018. If any changes have been made to the scope of the project after planning approval, please identify below (include attachments with a detailed narrative of any changes if necessary): _____

Section III – Loan Eligibility

In general, extended warranties, spare parts, and allowances are not eligible to receive loan funding. If this project includes any Warranties, Spare Parts, Allowances or other possible ineligible items, provide an explanation and the page number in the bidding documents where the ineligible item is located.

1. **Warranties:** The Loan Program can only fund the normal industry standard warranty. Any extended, special or additional warranties are not eligible in the loan program. If any warranty is more than the industry standard, please provide the cost for the warranty in excess of the industry standard.

Does this project include the purchase of any extended warranties? YES or **NO (Circle One)**
If YES, provide the page number and an explanation.

2. **Spare Parts:** Spare parts and extra materials are normally not loan eligible as they are viewed as maintenance related. To be eligible, spare parts must be justified as critical parts of major system components which are not immediately available and/or whose procurement involves an extended lead time.

Does this project include the purchase of any spare parts? YES or **NO (Circle One)**
If YES, provide the page number and an explanation.

3. **Allowances** (a fixed price to perform a specific scope of work) may be eligible at the time of the loan award provided justification for the allowance(s) is provided to the Agency along with a description of the scope of work and the basis for the establishment of the allowance amount.

Allowances are not allowed for equipment purchases which must be competitively bid.

Does this project include any allowances? YES or **NO (Circle One)**

If YES, provide the page number for each allowance along with an explanation.

- 4. Site Restoration:** The loan program can only fund site restoration to pre-construction conditions. For underground work, restoration is normally limited to the width of the trench. Costs for any site restoration beyond pre-construction conditions or for work outside the width of the trench should be identified.

Does this project include any restoration costs above and beyond pre-construction conditions?

YES or NO (Circle One)

If YES, provide the page number and an explanation.

- 5. Does the project include other items that may be ineligible?** Examples include costs outside the project scope, costs considered normal operating expenses, and pre-negotiated prices (see item 38).

YES or NO (Circle One)

If YES, provide the page number and an explanation.

METHODS UTILIZED TO ADDRESS INELIGIBLE ITEMS IN WPCLP PROJECTS

1. Delete ineligible items from the project.
2. Provide a separate line item in the bid for ineligible items.
3. Proration of bid for the percentage of ineligible cost(s).
4. Agreement on costs between the Agency and borrower prior to bidding.

Section IV – Environmental Conditions

YES or NO (Circle One)

If YES, provide the page number(s).

If environmental review of this project resulted in recommendations or conditions to utilize mitigative measures or precautions during construction to protect historical or cultural resources; threatened or endangered species; wetlands; streams; floodplains; waterways; or other natural areas, provide the page number where this information is found. Recommendations are issued by the IL Dept. of Natural Resources, Army Corps of Engineers, US Fish & Wildlife Service, or other state, federal or local Agencies.

Section V – Labor Agreements

YES or NO (Circle One)

Are contractors bidding this project required to be or become party to a Project Labor Agreement or Multi-Project Labor Agreement? If YES, provide a page number where the agreement is located or attach a copy of the document. Agreements may not significantly restrict competition.

Section VI – Certification of Plans and Specifications

I do hereby certify that the Bidding documents and Plans and Specifications for the project entitled: _____
Lansdowne Interceptor Improvements

have been prepared in accordance with the requirements of Ill. Adm. Code 365, Procedures for Issuing Loans from the Water Pollution Control Loan Program for obtaining loan funds.

Consulting Engineer: Robert L. Massa, Jr. P.E. / Juneau Associates Phone Number: 618-659-0900

Signature _____ Date _____

Loan Applicant's Authorized Representative: Rick Fancher, Executive Director, MESD

Signature _____ Date _____

DOCUMENTATION REQUIRED IN PLANS AND SPECIFICATIONS
FOR PROJECTS TO BE CONSTRUCTED UNDER THE
WATER POLLUTION CONTROL LOAN PROGRAM

Important! Due to the high unemployment rate caused by the ongoing COVID-19 pandemic, the Employment of Illinois Workers on Public Works Act became effective on July 1st. This Act requires the workforce on all public works projects to be comprised of a minimum of 90% Illinois residents. This applies to workers and does not exclude out of state companies from bidding on projects.

Further information about this requirement is on page 66 of this document.

The attached “**front-end document package**” may be utilized by the loan applicant to comply with regulations for loans issued under the Water Pollution Control Loan Program. The loan applicant’s use of the front-end document package and the completion and certification of the review checklist denoting the specific location of the required items as part of the submittal of the plans/specifications and permit application will help expedite the overall review of your project’s contract documents.

Rev. January 2002

Rev. March 2003

Rev. May 2003

Rev. April 2006

Rev. April 2007

Rev. April 2009

Rev. June 2010

Rev. February 2013

Rev. February 2014

Rev. December 2014

Rev. March 2016

Rev. March 2017

Rev. December 2017

Rev. September 2018 (AIS)

Rev. November 2019

Rev. November 2020 (IL Workers Act)

Rev. March 17, 2021 (Apprenticeship)

IL532-2564

WPC 688

TABLE OF CONTENTS

<i>Page Number</i>	
6	Advertisement for Bids
7	Information for Bidders
9	Bid Form or Proposal with Davis-Bacon Wage Act Requirements
19	Bid Bond
21	Agreement
24	Performance Bond
26	Payment Bond
28	Notice of Intent to Award
29	Notice of Award
30	Notice to Proceed
31	Change Order
32	Affirmative Action for Equal Employment Opportunity (E.O. 11246)
44	U.S.EPA Certification of Nonsegregated Facilities
45	Nondiscrimination in Employment Form
46	Certification Regarding Debarment, Suspension, & Other Responsibility Matters
48	IEPA requirements for Construction Contracts of Loan Recipients and Other Applicable Sections from “Procedures for Issuing Loans from the Water Pollution Control Supply Loan Program”.
52	Bidder Certification Regarding Compliance with Article 33E “Criminal Code of 2012”
53-55	Disadvantaged Business Enterprise Participation Specifications (DBE)
56	Suggested DBE Advertisement for Construction Contractors
57	Summary of DBE Requirements for Bidders
58-60	DBE Forms for Bidders
61	Use of American Iron & Steel Certification Form
62-65	Information Regarding the Use of American Iron and Steel
66	Employment of Illinois Workers on Public Works Act Certification
67-70	Illinois Works Jobs Program Act – Apprenticeship Initiative Information

ADVERTISEMENT FOR BIDS

Metro East Sanitary District
Owner
1800 Edison Avenue
Address
Granite City, IL 62040

Separate sealed BIDS for the construction of (briefly describe nature, scope, and major elements of the work):

Cured-in-Place Lining of the Lansdowne Sewer and Manhole Improvements/Lining

will be received by: Metro East Sanitary District

at the office located at 1800 Edison Avenue, Granite City, IL 62040

until: 10:00 a.m., (Standard Time-Daylight Savings Time) March 3, 20 22, and then at said office publicly opened and read aloud.

“Any contract or contracts awarded under this invitation for bids are expected to be funded in part by a loan from the Illinois Environmental Protection Agency (Illinois EPA). Neither the State of Illinois nor any of its departments, agencies, or employees is or will be a party to this invitation for bids or any resulting contract. The procurement will be subject to regulations contained in the Procedures for Issuing Loans from the Water Pollution Control Loan Program (35 IAC Part 365), the Davis-Bacon Act (40 USC 276a through 276a-5) as defined by the United States Department of Labor, the Employment of Illinois Workers on Public Works Act (30 ILCS 570), IL Works Jobs Program Act (30 ILCS 559/20-1), and the “Use of American Iron and Steel” requirements as contained in Section 436 of H.R. 3547, The Consolidated Appropriations Act, 2014. This procurement is also subject to the loan recipient’s policy regarding the increased use of disadvantaged business enterprises. The loan recipient’s policy requires all bidders to undertake specified affirmative efforts at least sixteen (16) days prior to bid opening. The policy is contained in the specifications. Bidders are also required to comply with the President’s Executive Order No. 11246, as amended. The requirements for bidders and contractors under this order are explained in 41 CFR 60-4.”

The CONTRACT DOCUMENTS may be examined at the following locations:

- Juneau Associates, Inc., P.C., 2100 State Street, Granite City, IL 62040
- Metro East Sanitary District, 1800 Edison Avenue, Granite City, IL 62040
- Southern Illinois Builders, 1468 N. Green Mount Road, O'Fallon, IL 62269

Copies of the CONTRACT DOCUMENTS may be obtained at the Office of: Juneau Associates, Inc., P.C. located at 2100 State Street, P.O. Box 1325, Granite City, IL 62040 upon payment of \$100.00 for each set.

A non-refundable charge of \$10.00 to cover the cost of postage and handling is required for those contractors requesting plans and specifications be mailed to them. Digital copies of the plans and specifications may be obtained at no cost upon Engineer's receipt of a completed request/release form provided by the Engineer.

Any BIDDER upon returning the CONTRACT DOCUMENTS promptly and in good condition, will be refunded his or her payment, and any non-bidder upon so returning the CONTRACT DOCUMENTS will be refunded the amount of \$100.00

DATE

SIGNATURE

INFORMATION FOR BIDDERS

BIDS will be received by Metro East Sanitary District

(herein called the "OWNER"), at 1800 Edison Avenue, Granite City, IL 62040

until _____, 20____, and then at said office publicly opened and read aloud.

Each BID must be submitted in a sealed envelope, addressed to Metro East Sanitary District at 1800 Edison Ave., Granite City, IL 62040 Each sealed envelope containing a BID must be plainly marked on the outside as BID for Lansdowne Interceptor Improvements and the envelope should bear on the outside the name of the BIDDER, his/her address, his/her license number if applicable and the name of the project for which the BID is submitted. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at 1800 Edison Avenue, Granite City, IL 62040.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. Only one copy of the BID form is required.

Any BID may be modified or withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 90 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID Schedule by examination of the site and a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING, all information that is pertinent to, and delineates and describes, the land owned, and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him or her from fulfilling any of the conditions of the contract.

A BID bond payable to the OWNER must accompany each BID for five percent of the total amount of the BID. As soon as the BID prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. When the Agreement is executed the bonds of the two remaining unsuccessful BIDDERS will be returned. The BID BOND of the successful BIDDER will be retained until the payment BOND and performance BOND have been executed and approved, after which it will be returned. A certified check may be used in lieu of a BID BOND.

A performance BOND and a payment BOND, each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign BID BONDS or payment BONDS and performance BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

Any contract entered into by the loan recipient and any sub-agreement hereunder, shall provide that representatives of the Agency will have access to the work whenever it is in preparation or progress and that the contractor or subcontractor will provide proper facilities for such access and inspection. Such contract or sub-agreement must also provide that the Agency or any authorized representative shall have

access to any books, documents, papers, and records of the contractor or subcontractor, which are pertinent to the project for making audit, examination, excerpts, and transcriptions thereof.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance BOND and payment BOND within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. The necessary Agreement and BOND forms shall accompany the NOTICE OF AWARD. In case of failure of the BIDDER to execute the Agreement, the OWNER may at his or her option consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the property of the OWNER.

The OWNER within ten (10) days of receipt of acceptable performance BOND, payment BOND and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE withdraw his or her signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The OWNER shall issue the NOTICE TO PROCEED within ten (10) days of the execution of the Agreement. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR might terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as he or she deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted.

Award will be made to the low, responsive, responsible BIDDER.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout including the Employment of Illinois Workers on Public Works Act (30 ILCS 570) and the Davis-Bacon Wage Act (40 USC 276a through 276a-5) as defined by the United States Department of Labor.

All BIDDERS will comply with Sec. 436 of H.R. 3547, "The Consolidated Appropriations Act, 2014", which specifies that all "iron and steel products" used in the project are produced in the United States.

BIDDER shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his or her BID.

Each BIDDER shall supply a list of all subcontractors that submitted proposals and if requested by the OWNER all major material suppliers.

Inspection trips for prospective BIDDERS will leave from the office of the _____ at _____.

The ENGINEER is _____ Robert L. Massa, Jr., P.E. _____ . His/her address is _____ Juneau Associates, Inc., P.C., 100 North Research Drive, Edwardsville, IL 62025 _____ .

BID FORM OR PROPOSAL

Proposal of _____ (hereinafter called "BIDDER"), organized and existing under the laws of the State of _____ doing business as _____*
to the Metro East Sanitary District (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of Lansdowne Interceptor Improvements

in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

BIDDER hereby agrees to commence WORK under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within 240 consecutive calendar days thereafter. BIDDER further agrees to pay as liquidated damages, the sum of \$ 750.00 for each consecutive calendar day thereafter.

BIDDER certifies that all iron and steel products used in the project for the construction, alteration, maintenance, or repair of a public water system are produced in the United States in compliance with Section 436. (a) – (f) of H. R. 3547, "The Consolidated Appropriation Act, 2014".

* **Insert "a corporation", "a partnership", or "an individual" as applicable.**

(I) By submission of the bid, each bidder certifies, and in the case of a joint bid each party to the joint bid certifies, as to his or her own organization, that in connection with the bid:

- (i) The prices in the bid have been arrived at independently, without consultation, communication, or agreement with any other bidder or with any competitor, for the purpose of restricting competition, as to any matter relating to the prices;
- (ii) Unless otherwise required by law, the prices quoted in the bid have not knowingly been directly or indirectly disclosed to any other bidder or to any competitor prior to opening; and
- (iii) No attempt has been made or will be made by the bidder to induce any other person or firm to submit or withhold a bid for the purpose of restricting competition;

(II) Each person signing the bid shall certify that:

- (i) He or she is the person in the bidder's organization responsible for the decision as to the prices being bid and that he or she has not participated, and will not participate, in any action contrary to (I)(i) through (I)(iii) above; or
- (ii) He or she is not the person in the bidder's organization responsible for the decision as to the prices being bid, but that he or she has been authorized to act as agent certifying that the persons determining the prices have not participated, and will not participate, in any action contrary to (I)(i) through (I)(iii) above, and as their bidder's agent shall so certify. He or she shall also certify that he or she has not participated, and will not participate, in any action contrary to (I)(i) through (I)(iii) above.

BIDDER acknowledges receipt of the following ADDENDUM (where applicable):

BIDDER certifies that wages paid in connection with the PROJECT shall be paid at prevailing rates not less than those prevailing under the Davis-Bacon Wage Act. Bidder further certifies that the provisions contained in the following clauses will be exercised in the performance of any contract resulting from this BID and are made a part of the CONTRACT DOCUMENTS thereto by their inclusion in the BID as follows:

(1) *Minimum wages.*

- (i) All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work performed, without regard to skill, except as provided in §5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. Sub recipients may obtain wage determinations from the U.S. Department of Labor's web site, <http://beta.sam.gov/>
- (ii) (A) The sub-recipient, on behalf of USEPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The USEPA award official shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (2) The classification is utilized in the area by the construction industry; and
 - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the sub-recipient agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the sub-recipient to IEPA. IEPA shall forward the report to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington,

DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise IEPA or will notify IEPA within the 30-day period that additional time is necessary.

(C) In the even the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the sub-recipient do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), IEPA shall refer the questions, including the views of all interested parties and the recommendation of the sub-recipient, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise IEPA or will notify IEPA within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis Bacon Act have been met. The Secretary of Labor may require the contractor to set aside, in a separate account, assets for the meeting of obligations under the plan or program.

- (2) *Withholding.* The sub-recipient shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the sub-recipient may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) *Payrolls and basic records.*

- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis Bacon Act), daily and weekly number of hours worked, deductions made and actual wages

- paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii) (A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the sub-recipient. Such documentation shall be available upon request of IEPA or USEPA. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Website, [<https://www.dol.gov/whd/forms/index.htm>]. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the sub-recipient, for transmission to the IEPA, USEPA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sub-recipient.
- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (1) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
 - (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
 - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

- (D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of IEPA, USEPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees

- (i) *Apprentices.* Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid no less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) *Trainees.* Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by form certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (iii) *Equal employment opportunity.* The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
- (5) *Compliance with Copeland Act requirements.* The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- (6) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the USEPA may by appropriate instruction require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- (7) *Contract termination: debarment.* A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) *Compliance with Davis Bacon and Related Act requirements.* All rulings and interpretations of the Davis Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (9) *Disputes concerning labor standards.* Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any

of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

- (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis Bacon Act or 29 CFR 5.12(a)(1).
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis Bacon Act or 29 CFR 5.12(a)(1).
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001

Contract Provision for Contracts in Excess of \$100,000 - clauses (1) through (4) shall be inserted in full in any contract in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act.

Contract Work Hours and Safety Standards Act

- (1) *Overtime requirements.* No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- (2) *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanics, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$25 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
- (3) *Withholding for unpaid wages and liquidated damages.* The sub-recipient, shall upon its own action or upon written request of the USEPA award official or an authorized representative of the Department of Labor, withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
- (4) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for

compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

The following shall be inserted into any contract subject only to the Contract Work Hours and Safety Standards Act.

The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the USEPA and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

*******Insert applicable current Davis-Bacon Wage Rates Here*******

"General Decision Number: IL20220017 01/07/2022

Superseded General Decision Number: IL20210017

State: Illinois

Construction Types: Heavy and Highway

Counties: Bond, Calhoun, Clinton, Greene, Jersey, Macoupin, Madison, Monroe, Montgomery, St Clair and Washington Counties in Illinois.

MACOUPIN (upper 1/2) & MONTGOMERY (upper 1/2, INCLUDING WAGGONER, STANDARD CITY, & NORTH THEREOF) COUNTIES:

HEAVY CONSTRUCTION PROJECTS (including Sewer & Water Line Construction & Drainage Projects) & HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects, and railroad construction; bascule, suspension & spandrel arch bridges; bridges designed for commercial navigation; bridges involving marine construction, other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022, Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022, Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

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

Additional information on contractor requirements and worker

protections under the Executive Orders is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/07/2022

CARP0270-015 05/01/2017

	Rates	Fringes
CARPENTER.....	\$ 32.15	25.97
PILEDRIVERMAN.....	\$ 33.15	25.97

CARP0270-023 05/15/2020

GREENE COUNTY

	Rates	Fringes
CARPENTER.....	\$ 35.05	28.57
PILEDRIVERMAN.....	\$ 35.05	28.57

CARP0500-001 05/01/2021

CLINTON, MONROE, and WASHINGTON COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 41.36	18.90

CARP0500-003 05/01/2021

ST. CLAIR COUNTY

	Rates	Fringes
Carpenter and Piledriver.....	\$ 41.36	18.90

CARP0664-003 05/01/2021

MADISON COUNTY

	Rates	Fringes
Carpenter and Piledriver.....	\$ 41.36	18.90

CARP0664-006 05/01/2021

BOND, CALHOUN, and JERSEY COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 41.36	18.90

ELEC0146-012 06/01/2021

MONTGOMERY COUNTY (East of Butler Grove, Grisham, Hillsboro & Raymond Twps)

	Rates	Fringes
ELECTRICIAN.....	\$ 40.20	19.81

ELEC0193-003 06/02/2021		

MACOUPIN (Barr, Girard, Nilwood, North & South Otter, North & South Palmyra and Virden Twps), AND MONTGOMERY (Bois D' Arc, Harvel and Pitman Twps) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 38.41	5%+18.65

ELEC0193-011 04/05/2021		

MACOUPIN (Townships of Scottville, North Palmyra, North Otter, Virden, Girard, Barr, South Palmyra, South Otter, and Nilwood) and MONTGOMERY (Townships of Bois D'Arc, Pitman, and Harvel) COUNTIES

	Rates	Fringes
Line Construction		
Groundman - Equipment Operator (Class I, all crawler type equipment larger than D-4, 15 ton crane or larger).....	\$ 50.85	29.5%+6.75
Groundman - Truck Driver (with winch, may operate diggers, 5th wheel type trucks, crawler-type equipment, D-4 and smaller, backhoe 3/4 yard and under, rubber tire and crawler w/end loader, and may drive bucket truck and live boom type line trucks)...	\$ 38.56	29.5%+6.75
Groundman - Truck Driver (without winch).....	\$ 36.31	29.5%+6.75
Groundman (Class A).....	\$ 34.54	29.5%+6.75
Lineman & Substation Tech...	\$ 56.60	29.5%+6.75

ELEC0309-002 12/07/2020		

BOND (Westside), CLINTON, GREENE (ALL WORK PERFORMED ON THE ILLINOIS POWER COMPANY PROPERTY), JERSEY (ALL WORK PERFORMED ON THE ILLINOIS POWER COMPANY PROPERTY), MACOUPIN (EXCEPT North 1/3 & Southwest Corner), MADISON (EXCEPT East ALTON, ALTON, WOOD RIVER & HARTFORD), MONROE, MONTGOMERY (East of ROUNDTREE,

IRVING & East FORK TWP.), RANDOLPH (PORTION OF RED BUD TOWNSHIP), ST. CLAIR, and WASHINGTON (OKAWVILLE & VENEDY TWPS.) COUNTIES

	Rates	Fringes
LINE CONSTRUCTION		
Cable Splicer; Lineman		
Welder.....	\$ 59.42	43.12%
Groundman Equipment		
Operator.....	\$ 49.22	43.12%
Groundman Truck Driver.....	\$ 40.17	43.12%
Groundman.....	\$ 36.74	43.12%
Lineman.....	\$ 56.59	43.12%

* ELEC0309-003 08/30/2021

BOND (Western Half), CLINTON (EXCLUDES HUEY, HOFFMAN, & VIC.), MACOUPIN (EXCLUDES BRIGHTON TWP., ATHENVILLE, SCOTTVILLE, GIRARD & AREA N. THEREOF), MADISON (EXCLUDES ALTON, E. ALTON, HARTFORD & WOOD RIVER), MONROE, MONTGOMERY (WEST OF BUTLER GROVE, GRISHAM, HILLSBOROUGH & RAYMOND TWPS), ST. CLAIR and WASHINGTON (VENEDY TWP) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 43.09	57.96%

ELEC0649-002 01/06/2020

CALHOUN, GREENE, JERSEY, MACOUPIN (SOUTHWEST CORNER), AND MADISON (E. ALTON, ALTON, WOOD RIVER & HARTFORD) COUNTIES

	Rates	Fringes
Line Construction		
BLASTER.....	\$ 53.45	29%+9.25
EQUIPMENT OPERATOR.....	\$ 45.78	29%+9.25
GROUNDMAN - TRUCK DRIVER		
W/WINCH.....	\$ 34.18	29%+9.25
GROUNDMAN - TRUCK DRIVER		
WO/WINCH.....	\$ 30.18	29%+9.25
GROUNDMAN.....	\$ 29.38	29%+9.25
LINEMAN; AND LINEMAN HOLE		
BORING MACHINE OPERATOR.....	\$ 53.45	29%+9.25

ELEC0649-008 12/28/2020

CALHOUN, GREEN, JERSEY, MACOUPIN (SOUTHWEST CORNER), AND MADISON (ALTON, E. ALTON, HARTFORD & WOOD RIVER) COUNTIES

	Rates	Fringes
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ELECTRICIAN.....	\$ 45.14	24.60
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* ELEC0702-002 01/03/2021

ALEXANDER, CLAY, CRAWFORD, EDWARDS, EFFINGHAM, FRANKLIN, FAYETTE (Excludes portion North Avena), GALLATIN, HAMILTON, HARDIN, JACKSON, JASPER, JEFFERSON, JOHNSON, LAWRENCE, MARION, MASSAC, PERRY, POPE, PULASKI, RANDOLPH (Except Red Bud Twps), RICHLAND, SALINE, UNION, WABASH, WAYNE, WHITE, AND WILLIAMSON COUNTIES;
CLARK, COLES (Southern Half), CUMBERLAND, MOULTRIE (Whitley TWP), and SHELBY (Except West of Holland, Prairie, Richland, & Windsor TWPS) COUNTIES;
BOND (Eastern Half), and WASHINGTON (OKAWVILLE & VENDY TWPS) COUNTIES

	Rates	Fringes
Line Construction		
Groundman - Class A.....	\$ 33.27	29%+8.00
Groundman - Equipment		
Operator Class II (all other equipment).....	\$ 40.51	29%+8.00
Heavy - Equipment Operator		
Class I (all crawler type equipment D-4 and larger)...	\$ 45.43	29%+8.00
Lineman.....	\$ 57.09	29%+8.00

ELEC0702-017 01/01/2021

BOND (Eastern Half), CLINTON (Huey, Hoffman, & Vicinity), AND WASHINGTON (Except Venedy TWP) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 46.02	24.32

ENGI0520-005 08/01/2017

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 01.....	\$ 36.20	31.35
Group 02.....	\$ 35.07	31.35
Group 03.....	\$ 30.59	31.35
Group 04.....	\$ 30.65	31.35
Group 05.....	\$ 30.32	31.35
Group 06.....	\$ 38.75	31.35
Group 07.....	\$ 39.05	31.35
Group 08.....	\$ 39.33	31.35
Group 09.....	\$ 37.20	31.35
Group 10.....	\$ 38.20	31.35
Group 11.....	\$ 38.20	31.35
Group 12.....	\$ 39.20	31.35

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Cranes, Draglines, Shovels, Skimmer Scoops, Clamshells or Derrick Boats, Pile Drivers, Crane-Type Backhoes, Asphalt Plant Operators, Concrete Plant Operators, Dredges, Asphalt Spreading Machines, Screws on Asphalt Spreading Machines, All Locomotives, Cable Ways or Tower Machines, Hoists, Hydraulic Backhoes, Ditching Machines, or Backfiller, Cherrypickers, overhead Cranes, Roller, Steam or Gas, Concrete Pavers, Excavator Concrete Breakers, Concrete Pumps, Bulk Cement Plants, Cement Pumps, DerrickType Drills, Boat Operators, Motor Graders or Pushcats, Scoops or Toumapulls, Bulldozers, Endloaders or Fork Lifts, Power Blade or Elevating Graders, Winch Cats, Boom or Winch Trucks or Boom Tractors, Pipe Wrapping or Painting Machines, Asphalt Plant Engineer, Journeyman Lubricating Engineer, Drills (other than derrick type), Mud Jacks, or Well Drilling Machines, Boring Machines or Track Jacks, Mixers, Conveyors (two), Air Compressors (two) Water Pumps, regardless of size (two), Welding Machines (two), Siphons or Jets (two), Winch Head or Apparatuses (two), Light Plants (two), Waterblasters (two), all Tractors, regardless of size (straight tractor only), Fireman on Stationary Boilers, Automatic Elevators, Form Grading Machines, Finishing Machines, Power Sub-Grader or Ribbon Machines, Longitudinal Floats, Distributor Operators on Trucks, Winch Heads or Apparatuses (one), Mobil Track air and heaters (two to five), Heavy Equipment Greaser, Relief Operator, Assistant Master Mechanic and Heavy Duty Mechanic, concrete saws of all types and sizes with their attachments, gobhoppers, excavators all sizes, the repair, greasing, and fueling of all diesel hammers, the operation, set-up and cleaning of bidwells, concrete placement booms, the alterations, repair of all barges, water blasters of all sizes and their clutches, mobile lifts, hydraulic jacks where used for hoisting, diesel or gas powered flashing signs used for traffic control, micro pavers, log skidders, iceolators used on and off of pipeline, condor cranes, drill rigs of all sizes, bow boats, survey boats, ross carriers, bob-cats and all their attachments, skid steer loaders and all their attachments, creter crane, direct drive electric motors the bolting and unbolting the adjusting and shimming, (dewatering jobs, whirley crane, conveyor belts) etc., batch plants (all sizes), roto mills, conveyors systems of any size and any configuration, hydroseeders and strawblowers all sizes, operation, repair, service of all vibratory hammers, all power pacs and their controls regardless of location, curtains or brush burning machines, stump cutter machines, grout machines regardless of size, Nail launchers when mounted on a machine or self-propelled, con-cover machines, Goldhofer and similar S.P.M.T. (self-propelled modular transpmiers) heavy transport units and all Operators (except those listed below).

Group 2: Assistant Operators

GROUP 3: Air Compressor One; Water Pump regardless of size One; Welding Machine One; 1-Bag Mixer One; Conveyor One; Siphon or Jet; Light Plant One; Heater One; Immobile Track Air One

GROUP 4: Firemen on Whirlies and Asphalt Spreader Oiler; Heavy Equipment Oilers; Truck Cranes; Monigans; Large over 65 tons capacity; Concrete Plant Oiler and Black Top Plant Oiler

GROUP 5: Oilers

GROUP 6: Operators on equipment with Booms, including Jibs, 100 ft and over, but less than 150 ft

GROUP 7: Operators on equipment with Booms, including Jibs, 150 ft and over, but less than 200 ft

GROUP 8: Operators on equipment with Boomns, including Jibs, 200 ft and over; Tower Cranes, and Whirley Cranes

GROUP 9: Certified crane Operators, Below 17.5 tons, when requested by the Contractor or required by the Owner.

GROUP 10: Certified crane Operators 17.5 tons and above, when requested by the Contractor or required by the Owner.

GROUP 11: Master Mechanic

GROUP 12: Licensed Boat Pilot

ENGI0520-012 08/01/2017

INCLUDING BUILDING CONSTRUCTION ON HEAVY INDUSTRIAL SITES &
HEAVY CONSTRUCTION EXCEPT DREDGING AND RIVER WORK

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 01.....	\$ 37.70	31.35
Group 02.....	\$ 36.57	31.35
Group 03.....	\$ 32.09	31.35
Group 04.....	\$ 32.15	31.35
Group 05.....	\$ 31.82	31.35
Group 06.....	\$ 40.25	31.35
Group 07.....	\$ 40.55	31.35
Group 08.....	\$ 40.83	31.35
Group 09.....	\$ 38.70	31.35
Group 10.....	\$ 39.70	31.35
Group 11.....	\$ 39.70	31.35
Group 12.....	\$ 40.70	31.35

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Cranes, Draglines, Shovels, Skimmer Scoops,

Clamshells or Derrick Boats, Pile Drivers, Crane-Type Backhoes, Asphalt Plant Operators, Concrete Plant Operators, Dredges, Asphalt Spreading Machines, Screws on Asphalt Spreading Machines, All Locomotives, Cable Ways or Tower Machines, Hoists, Hydraulic Backhoes, Ditching Machines, or Backfiller, Cherrypickers, overhead Cranes, Roller, Steam or Gas, Concrete Pavers, Excavator Concrete Breakers, Concrete Pumps, Bulk Cement Plants, Cement Pumps, Derrick-Type Drills, Boat Operators, Motor Graders or Pushcats, Scoops or Tournapulls, Bulldozers, Endloaders or Fork Lifts, Power Blade or Elevating Graders, Winch Cats, Boom or Winch Trucks or Boom Tractors, Pipe Wrapping or Painting Machines, Asphalt Plant Engineer, Journeyman Lubricating Engineer, Drills (other than derrick type), Mud Jacks, or Well Drilling Machines, Boring Machines or Track Jacks, Mixers, Conveyors (two), Air Compressors (two) Water Pumps, regardless of size (two), Welding Machines (two), Siphons or Jets (two), Winch Head or Apparatuses (two), Light Plants (two), Waterblasters (two), all Tractors, regardless of size (straight tractor only), Fireman on Stationary Boilers, Automatic Elevators, Form Grading Machines, Finishing Machines, Power Sub-Grader or Ribbon Machines, Longitudinal Floats, Distributor Operators on Trucks, Winch Heads or Apparatuses (one), Mobil Track air and heaters (two to five), Heavy Equipment Greaser, Relief Operator, Assistant Master Mechanic and Heavy Duty Mechanic, concrete saws of all types and sizes with their attachments, gob-hoppers, excavators all sizes, the repair, greasing, and fueling of all diesel hammers, the operation, set-up and cleaning of bidwells, concrete placement booms, the alterations, repair of all barges, water blasters of all sizes and their clutches, mobile lifts, hydraulic jacks where used for hoisting, diesel or gas powered flashing signs used for traffic control, micro pavers, log skidders, iceolators used on and off of pipeline, condor cranes, drill rigs of all sizes, bow boats, survey boats, ross carriers, bob-cats and all their attachments, skid steer loaders and all their attachments, creter crane, direct drive electric motors the bolting and unbolting the adjusting and shimming, (dewateringjobs, whirley crane, conveyor belts) etc., batch plants (all sizes), roto mills, conveyors systems of any size and any configuration, hydroseeders and straw-blowers all sizes, operation, repair, service of all vibratory hammers, all power pacs and their controls regardless of location, curtains or brush burning machines, stump cutter machines, grout machines regardless of size, Nail Launchers when mounted on a machine or self-propelled, con-cover machines, Goldhofer and similar S.P.M.T. (self-propelled modular transporters) heavy transport units and all Operators (except those listed below).

GROUP 2: Assistant Operators

GROUP 3: Air Compressors (one), Water Pumps, regardless of size (one), Water-blasters (one), Welding Machine (one), Mixers (one bag), Conveyor (one), Siphon or Jet (one),

Light Plant (one), Heater (one), Immobile Track Air (one), and Self-Propelled Walk Behind Rollers.

GROUP 4: Fireman on Whirlies and Heavy Equipment Oilers, Truck Cranes, Dredges, Monigans, Large Cranes - (Over 65-ton rated capacity) Concrete Plant Oiler, Blacktop Plant oiler and Creter Crane Oiler (when required), barge tenders, oilers on drill rigs used for caisson or for pile driving.

GROUP 5: Oilers

GROUP 6: Operators on equipment with Booms, including Jibs, 100 ft and over, but less than 150 ft

GROUP 7: Operators on equipment with Booms, including Jibs, 150 ft and over, but less than 200 ft

GROUP 8: Operators on equipment with Boomns, including Jibs, 200 ft and over; Tower Cranes, and Whirley Cranes

GROUP 9: Certified crane Operators, Below 17.5 Tons, when requested by the Contractor or required by the Owner

GROUP 10: Celiified crane Operators 17.5 Tons and above, when requested by the Contractor or required by the Owner

GROUP 11: Master Mechanic

GROUP 12: Licensed Boat Pilot

IRON0046-006 08/01/2021

GREENE (NORTHERN HALF), MACOUPIN (NORTH OF SUMMERVILLE), AND MONTGOMERY (NORTH OF LITCHFIELD & HILLSBORO) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 34.92	29.63

* IRON0392-003 08/01/2021

BOND, CALHOUN, CLINTON, GREENE (SOUTHERN HALF), JERSEY, MACOUPIN (SUMMERVILLE & SOUTH THEREOF), MADISON, MONROE, MONTGOMERY (LITCHFIELD, HILLSBORO, & SOUTH THEREOF), ST. CLAIR, and WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 36.50	29.38

IRON0396-006 01/02/2012

BRIDGES, LOCKS, and DAMS ON THE MISSISSIPPI RIVER

	Rates	Fringes
IRONWORKER.....	\$ 31.98	19.11

LABO0044-001 08/01/2017

MADISON COUNTY (Southwest)

	Rates	Fringes
LABORER		
Group 1.....	\$ 25.76	27.48
Group 2.....	\$ 26.26	27.48
Group 3.....	\$ 27.26	27.48

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste
Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

LABO0044-002 08/01/2017

MADISON COUNTY (GLEN CARBON)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 25.76	27.48
GROUP 2.....	\$ 26.26	27.48
GROUP 3.....	\$ 27.26	27.48

LABORERS CLASSIFICATIONS

GROUP 1 - General Laborers.

GROUP 2 - Brick Mason and Plasterer Tenders.

GROUP 3 - Dynamite and Powder Men.

LABO0100-001 08/01/2017

ST CLAIR COUNTY (East St. Louis, Alcoa, Brooklyn, Cahokia,
Caseyville, Centreville, Dupo, Fairmont City, French Village,
Midway, Maplewood, National City)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 30.79	22.45

Group 2.....	\$ 31.29	22.45
Group 3.....	\$ 32.29	22.45

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker, Hod Carrier

GROUP 3 - Dynamite Man

LABO0196-001 08/01/2017

MONROE COUNTY

	Rates	Fringes
LABORERS		
Group 1.....	\$ 27.66	25.58
Group 2.....	\$ 28.16	25.58

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker; Dynamite Man

LABO0218-001 08/01/2017

BOND (Greeneville), CALHOUN (Hardin), GREENE (Roadhouse), JERSEY (Jerseyville), and MADISON (Alton) COUNTIES

	Rates	Fringes
LABORERS		
Group 1.....	\$ 30.59	22.65
Group 2.....	\$ 31.09	22.65
Group 3.....	\$ 32.09	22.65

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

LABO0218-004 08/01/2017

JERSEY COUNTY (Jerseyville)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 30.59	22.65
GROUP 2.....	\$ 31.09	22.65
GROUP 3.....	\$ 32.09	22.65

LABORER CLASSIFICATIONS

GROUP 1 - General Laborers.

GROUP 2 - Brick Mason and Plasterer Tenders.

GROUP 3 - Dynamite and Powder Men.

LABO0218-005 08/01/2017

GREENE COUNTY (Roadhouse)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 30.59	22.65
GROUP 2.....	\$ 31.09	22.65
GROUP 3.....	\$ 32.09	22.65

LABORER CLASSIFICATIONS

GROUP 1 - General Laborers.

GROUP 2 - Brick Mason and Plasterer Tenders.

GROUP 3 - Dynamite and Powder Men.

LABO0218-006 08/01/2017

CALHOUN COUNTY (Hardin)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 30.59	22.65
GROUP 2.....	\$ 31.09	22.65
GROUP 3.....	\$ 32.09	22.65

LABORERS CLASSIFICATIONS

GROUP 1 - General Laborers.

GROUP 2 - Brick Mason and Plasterer Tenders.

GROUP 3 - Dynamite and Powder Men.

LABO0338-002 08/01/2017

MADISON COUNTY (Wood River)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 30.13	23.11
Group 2.....	\$ 30.63	23.11
Group 3.....	\$ 31.63	23.11

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste
Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

LABO0397-001 08/01/2017

MADISON COUNTY (Southeast)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 30.79	22.45
Group 2.....	\$ 31.29	22.45
Group 3.....	\$ 32.29	22.45

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste
Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

LABO0397-002 08/01/2017

MADISON COUNTY (GRANITE CITY and Vicinity)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 30.79	22.45
Group 2.....	\$ 31.29	22.45
Group 3.....	\$ 32.29	22.45

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

LABO0397-003 08/01/2017

MADISON COUNTY (Edwardsville, Marine, and Livingston)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 30.79	22.45
GROUP 2.....	\$ 31.29	22.45
GROUP 3.....	\$ 32.29	22.45

LABOREER CLASSIFICATIONS

GROUP 1 - General Laborers.

GROUP 3 - Brick Mason and Plasterer Tenders.

GROUP 4 - Dynamite and Powder Men.

LABO0459-001 08/01/2017

ST. CLAIR COUNTY (South)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 28.63	24.61
Group 2.....	\$ 29.13	24.61
Group 3.....	\$ 30.13	24.61

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

LABO0459-004 08/01/2017

ST. CLAIR COUNTY (Belleville)

	Rates	Fringes
Hod Carrier.....	\$ 29.13	24.61

LABO0581-002 08/01/2017

CLINTON COUNTY (Carlyle)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 26.46	26.78
Group 2.....	\$ 26.96	26.78

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste
Worker; Lead Base Paint Worker; Dynamite Man

LABO0622-002 08/01/2017

BOND COUNTY (Greenville)

	Rates	Fringes
LABORERS		
Group 1.....	\$ 26.50	26.74
Group 2.....	\$ 27.00	26.74
Group 3.....	\$ 28.00	26.74

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste
Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

LABO0622-003 08/01/2017

BOND COUNTY (Except the Northside)

	Rates	Fringes
LABORERS		
GROUP 1.....	\$ 26.50	26.74
GROUP 2.....	\$ 27.00	26.74
GROUP 3.....	\$ 28.00	26.74

LABORER CLASSIFICATIONS

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste
Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

LABO0670-001 08/01/2017

ST CLAIR (O'Fallon, Scott Air Force Base, Shiloh, Lebanon & Vincinity), CLINTON (Trenton & Vicinity), and MADISON (Troy) COUNTIES

	Rates	Fringes
LABORERS		
Group 1.....	\$ 28.05	25.19
Group 2.....	\$ 28.55	25.19
Group 3.....	\$ 29.55	25.19

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

Group 3 - Dynamite Man

LABO0670-004 08/01/2017

MADISON COUNTY (St. Jacob)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 28.05	25.19
GROUP 2.....	\$ 28.55	25.19
GROUP 3.....	\$ 29.55	25.19

LABORER CLASSIFICATIONS

GROUP 1 - General Laborers.

GROUP 2 - Brick Mason and Plasterer Tenders.

GROUP 3 - Dynamite and Powder Men.

LABO0674-001 08/01/2002

MADISON COUNTY (St. Jacob)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 29.45	1.60
GROUP 2.....	\$ 29.70	1.60
GROUP 3.....	\$ 29.95	1.60
GROUP 4.....	\$ 29.45	1.60

LABORER CLASSIFICATIONS

GROUP 1 - General Laborers.

GROUP 2 - Work in Septic tanks, cess pools, or dry wells (old or new); All feeders, mixers and nozzle men on gunnite or sandblasting work; When handling creosoted material; Raking or luting asphalt; Burning or cutting with torch; Working on Bottom of Sewer Trenches on Final Grading, Laying or Caulking of performed sectional Sewer Pipe; High time (20 feet or over) where exposed to an open fall; Operator of motor buggies; Any work performed in or on all types of cased wells; Cooking, mixing and applying of mastic such as sulfa-seal and/or other coal derivatives

GROUP 3 - Brick Mason and Plasterer Tenders.

GROUP 4 - Dynamite and Powder Men.

LABO0742-001 08/01/2017

ST. CLAIR (Mascoutah) and CLINTON (New Baden) COUNTIES

	Rates	Fringes
LABORERS		
Group 1.....	\$ 26.37	26.87
Group 2.....	\$ 26.87	26.87
Group 3.....	\$ 27.87	26.87

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

LABO0968-001 08/01/1997

CALHOUN COUNTY (Hardin)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 25.80	.60
GROUP 2.....	\$ 26.05	.60
GROUP 3.....	\$ 26.30	.60
GROUP 4.....	\$ 27.325	.60

LABORERS CLASSIFICATIONS

GROUP 1 - General Laborers.

GROUP 2 - Work in Septic tanks, cess pools, or dry wells (old or new); All feeders, mixers and nozzle men on gunnite or sandblasting work; When handling creosoted material; Ranking or luting asphalt; Burning or cutting with torch; Working on Bottom of Sewer Trenches on Final Grading, Laying or Caulking or performed sectional Sewer Pipe; High time (20 feet or over) where exposed to an open fall; Operator of motor buggies; Any work performed in or on all types of cased wells; Cooking, mixing and applying of mastic such as sulfa-seal and/or other coal derivatives

GROUP 3 - Brick Mason and Plasterer Tenders.

GROUP 4 - Dynamite and Powder Men.

LABO1084-001 08/01/2017

BOND (Sorento) and MONTGOMERY COUNTIES

	Rates	Fringes
LABORERS		
Group 1.....	\$ 25.74	27.50
Group 2.....	\$ 26.24	27.50
Group 3.....	\$ 27.24	27.50

LABORER CLASSIFICATIONS:

GROUP 1 - General Laborer

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker

GROUP 3 - Dynamite Man

PAIN0058-002 05/01/2017

	Rates	Fringes
PAINTER (Bridge).....	\$ 32.45	17.12

Epoxy or Toxic-Lead-Based Paint Work-\$1.00 Premium

PLAS0090-001 08/01/2018

BOND, CALHOUN, CLINTON (WESTERN HALF EAST TO BUT NOT INCLUDE CARYLE), GREENE, JERSEY, MACOUPIN, MADISON, MONROE, MONTGOMERY, and ST. CLAIR COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 34.50	24.75

PLAS0090-005 08/01/2018

Clinton County

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 34.50	24.75

PLAS0143-007 04/01/2016		

WASHINGTON COUNTY

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 36.43	20.87

TEAM0050-006 05/01/2020		

BOND. CLINTON, MONROE, ST CLAIR, WASHINGTON COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 39.04	20.63
Group 2.....	\$ 39.60	20.63
Group 3.....	\$ 39.91	20.63
Group 4.....	\$ 40.25	20.63
Group 5.....	\$ 41.33	20.63

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hauling more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vector Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combination units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

TEAM0525-004 05/01/2019

CALHOUN, GREENE (South of a direct line that extends East from Pike County through Hillview/Whitehall to Macoupin County),

JERSEY, MACOUPIN, MADISON, MONTGOMERY COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 38.17	19.85
Group 2.....	\$ 38.71	19.85
Group 3.....	\$ 39.01	19.85
Group 4.....	\$ 39.34	19.85
Group 5.....	\$ 40.39	19.85

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hauling more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combination units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

TEAM0916-004 05/01/2019

GREENE (North of a direct line that extends East from Pike County through Hillview/Whitehall to Macoupin County) COUNTY

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 38.17	19.85
Group 2.....	\$ 38.71	19.85
Group 3.....	\$ 39.01	19.85
Group 4.....	\$ 39.34	19.85
Group 5.....	\$ 40.39	19.85

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse

employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hauling more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combination units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical

order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

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

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Division National Office Branch of Wage Surveys. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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

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

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

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

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

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

Administrative Review Board
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

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

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END OF GENERAL DECISION"

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices:

BID SCHEDULE

Note: BIDS shall include sales tax and all other applicable taxes and fees.

NO.	ITEM	UNIT	UNIT PRICE	AMOUNT	TOTAL PRICE
1	Heavy Sewer Cleaning / CCTV Inspection of 21" - 30" Sanitary Sewer	Lin. Ft.		6,249	
2	Heavy Sewer Cleaning / CCTV Inspection of 42" - 48" Sanitary Sewer	Lin. Ft.		4,393	
3	Heavy Sewer Cleaning / CCTV Inspection of 54" - 66" Sanitary Sewer	Lin. Ft.		16,095	
4	Furnish & Install 21" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		1,488	
5	Furnish & Install 24" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		1,033	
6	Furnish & Install 27" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		907	
7	Furnish & Install 30" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		2,837	
8	Furnish & Install 42" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		1,355	
9	Furnish & Install 45" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		2,722	
10	Furnish & Install 48" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		531	
11	Furnish & Install 54" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		12,934	
12	Furnish & Install 60" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		1,594	
13	Furnish & Install 66" Cured-in-Place Pipe (CIPP) Lining	Lin. Ft.		1,215	
14	Manhole 19 Modification	L. Sum		1	
15	Slip Lined Manhole Modifications	Each		8	
16	Raised Manhole Modification	Each		12	
17	Sanitary Manhole Lining (Circular Sections)	Vert. Ft.		414.7	
18	Sanitary Manhole Lining (Rectangular Sections)	Sq. Ft.		11,017	
19	Manhole Frame & Lid	Each		85	
20	Concrete Encasement of Joints on 66"/60" Sewer	Each		40	

TOTAL OF BID.....\$

LUMP SUM BID (if applicable)\$

BID SCHEDULE
(Continued)

Bidder is currently certified as an MBE or WBE under EPA's DBE program? Yes _____ No _____

Respectfully submitted,

Signature

Address

Title

Date

Telephone #

E-mail Address

(SEAL - if BID is by a corporation)

Attest: _____

MAJOR ITEMS OF EQUIPMENT

It is hereby expressly agreed that the Contractor shall furnish and install in full compliance with the Plans and Contract Documents, the major items of equipment, as manufactured or supplied by the following listed manufacturers or suppliers:

No.	Description	Manufacturer or Supplier
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		

BID BOND

KNOW ALL MEN AND WOMEN BY THESE PRESENTS, that we, the undersigned, _____
_____ as Principal, and
_____ as Surety, are hereby held and firmly
bound unto _____ as OWNER in the penal sum of
_____ for the payment of which, well and truly to be
made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 20 _____.

The Condition of the above obligation is such that whereas the Principal has submitted to
_____ a certain BID, attached hereto and
hereby made a part hereof to enter into a contract in writing, for the

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

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

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

_____(L.S.)
Principal

Surety

By: _____

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

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 20 _____, by and between Metro East Sanitary District, hereinafter called "OWNER" and _____ doing business as (an individual) or (a partnership) or (a corporation) hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of _____
Lansdowne Interceptor Improvements
2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein.
3. The CONTRACTOR will commence the work required by the Contract Documents within 30 calendar days after the date of the NOTICE TO PROCEED and will complete the same within 210 calendar days unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.
4. The CONTRACTOR agrees to perform all the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of \$_____, or as shown in the BID schedule.
5. The term "CONTRACT DOCUMENTS" means and includes the following:
 - (A) Advertisement for BIDS
 - (B) Information for BIDDERS
 - (C) BID
 - (D) BID BOND
 - (E) Agreement
 - (F) Payment BOND
 - (G) Performance BOND
 - (H) NOTICE OF AWARD
 - (I) NOTICE TO PROCEED
 - (J) CHANGE ORDER
 - (K) DRAWINGS prepared by Juneau Associates, Inc., P.C.
numbered _____ through _____ and dated _____, 20 _____.

(L) SPECIFICATIONS prepared or issued by _____
_____,
dated _____, 20_____.

(M) ADDENDA:

No. _____, dated _____, 20_____

No. _____, dated _____, 20 _____

No. _____, dated _____, 20_____

6. The OWNER will pay to the CONTRACTOR in the manner and at such times, such amounts as required by the CONTRACT DOCUMENTS.

7. No contractor shall discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

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

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

OWNER:

By _____
Name _____
Title _____

(Please Type)

(SEAL)

ATTEST:

Name _____
(Please Type)
Title _____

CONTRACTOR:

By _____
Name _____
Address _____

(Please Type)

(SEAL)

ATTEST:

Name _____
(Please Type)
Title _____

PERFORMANCE BOND

KNOW ALL MEN AND WOMEN BY THESE PRESENTS: that

(Name of Corporation)

(Address of Corporation)

a _____ hereinafter called Principal and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto _____

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____

_____ Dollars, \$(_____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

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

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

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

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be deemed an original, this _____ day of _____ 20 _____.

ATTEST:

By: _____

(SEAL)

ATTEST:

(SEAL)

By: _____

NOTE: Date of BOND must not be prior to date of Contract.
If CONTRACTOR is Partnership, all partners should execute BOND.

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

PAYMENT BOND

KNOW ALL MEN AND WOMEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called SURETY, are held and firmly bound unto _____

(Name of Owner)

(Address of Owner)

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

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

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

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no
change, extension of time, alteration or addition to the terms of the contract or to the WORK to be
performed hereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its

obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS, WHEREOF, this instrument is executed in ____ counterparts, each one of which shall be deemed an original, this the _____ day of _____ 20 _____.

(SEAL)

ATTEST:

By: _____

ATTEST:

By: _____

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

If CONTRACTOR is Partnership, all partners should execute BOND.

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

NOTICE OF INTENT TO AWARD

To: _____

Project Description: _____

The OWNER has considered the BID submitted by you for the above described WORK, in response to its Advertisement for Bids, dated _____ and Information for Bidders.

You are hereby notified that your BID will be accepted, contingent upon Illinois Environmental Protection Agency (IEPA) approval, for items in the amount of _____.

You will be required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR'S Performance BOND, Payment BOND and certificates of insurance within ten (10) calendar days from the date of the final Notice to be sent upon IEPA approval, to you.

Dated this day of _____

OWNER

By: _____

Title: _____

NOTICE OF AWARD

To: _____

PROJECT Description: _____

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated _____, 20 _____ and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of \$_____.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR'S Performance BOND, Payment BOND and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____, 20 _____.

(Owner)

By _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged,

by _____,

this the _____ day of _____, 20 _____.

By _____

Title _____

NOTICE TO PROCEED

To: _____ Date: _____

_____ Project: _____

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 20 _____, on or before _____, 20 _____, and you are to complete the WORK within _____ consecutive calendar days thereafter. The date of completion of all WORK is therefore _____, 20 _____.

(Owner)

By _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED
is hereby acknowledged by _____

this the _____ day of

_____, 20 ____.

By _____

Title _____

Change Order No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

The Contract Documents are modified as follows upon execution of this Change Order:

Description:

Attachments: (List documents supporting change):

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES:
Original Contract Price:	Original Contract Times: <input type="checkbox"/> Working days <input type="checkbox"/> Calendar days
\$ _____	Substantial completion (days or date): _____
	Ready for final payment (days or date): _____
[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:	[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:
\$ _____	Substantial completion (days): _____
	Ready for final payment (days): _____
Contract Price prior to this Change Order:	Contract Times prior to this Change Order:
\$ _____	Substantial completion (days or date): _____
	Ready for final payment (days or date): _____
[Increase] [Decrease] of this Change Order:	[Increase] [Decrease] of this Change Order:
\$ _____	Substantial completion (days or date): _____
	Ready for final payment (days or date): _____
Contract Price incorporating this Change Order:	Contract Times with all approved Change Orders:
\$ _____	Substantial completion (days or date): _____
	Ready for final payment (days or date): _____

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____ Engineer (Authorized Signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Date: _____	Date: _____	Date: _____
Approved by Funding Agency (if applicable): _____	Date: _____	

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL
EMPLOYMENT OPPORTUNITY
(EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for minority participation for each trade	Goals for female participation in each trade
	Insert goals for* each year <u>14.7%</u>	Insert goals for* each year <u>6.9%</u>

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is **.

*goals and timetables published from time to time by the Director, Office of Federal Contract Compliance Programs (OFCCP)

**Insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any.

CONSTRUCTION CONTRACTORS AFFIRMATIVE ACTION REQUIREMENTS GOALS FOR MINORITY PARTICIPATION

(As published in the Friday, October 3, 1980 Federal Register)

FEMALE PARTICIPATION= 6.9% STATEWIDE

<u>County</u>	<u>Percent</u>	<u>County</u>	<u>Percent</u>	<u>County</u>	<u>Percent</u>
Adams	3.1	Jasper	11.4	Randolph	11.4
Alexander	11.4	Jefferson	11.4	Richland	11.4
Bond	11.4	Jersey	11.4	Rock Island	4.6
Boone	6.3	Jo Davis	0.5	Saline	3.5
Brown	3.1	Johnson	11.4	Sangamon	4.5
Bureau	18.4	Kane	19.6	Schuyler	3.3
Calhoun	11.4	Kankakee	9.1	Scott	4
Carroll	3.4	Kendall	18.4	Shelby	4
Cass	4	Knox	3.3	Stark	3.3
Champaign	7.8	Lake	19.6	St. Clair	14.7
Christian	4	La Salle	18.4	Stephenson	4.6
Clark	2.5	Lawrence	3.5	Tazwell	4.4
Clay	11.4	Lee	4.6	Union	11.4
Clinton	14.7	Livingston	18.4	Vermilion	4.8
Coles	4.8	Logan	4	Wabash	3.5
Cook	19.6	Macon	7.6	Warren	3.3
Crawford	2.5	Macoupin	11.4	Washington	11.4
Cumberland	4.8	Madison	14.7	Wayne	11.4
De Kalb	18.4	Marion	11.4	White	3.5
De Witt	4	Marshall	3.3	Whiteside	3.4
Douglas	4.8	Mason	3.3	Will	20.9
Du Page	19.6	Massac	5.2	Williamson	11.4
Edgar	4.8	McDonough	3.3	Winnebago	6.3
Edwards	3.5	McHenry	19.6	Woodford	4.4
Effingham	11.4	McLean	2.5		
Fayette	11.4	Menard	4.5		
Ford	4.8	Mercer	3.4		
Franklin	11.4	Monroe	14.7		
Fulton	3.3	Montgomery	11.4		
Gallatin	3.5	Morgan	4		
Greene	11.4	Moultrie	4		
Grundy	18.4	Ogle	4.6		
Hamilton	3.5	Peoria	4.4		
Hancock	3.4	Perry	11.4		
Hardin	5.2	Piatt	4.8		
Henderson	3.4	Pike	3.1		
Henry	4.6	Pope	5.2		
Iroquois	18.4	Pulaski	11.4		
Jackson	11.4	Putnam	18.4		

41 CFR 60**60-4.1 Scope and Application.**

This part applies to all contractors and subcontractors that hold any Federal or federally assisted construction contract in excess of \$10,000. The regulations in this part are applicable to all of a construction contractor's or subcontractor's construction employees who are engaged in on site construction including those construction employees who work on a non-Federal or non-federally assisted construction site. This part also establishes procedures, which all Federal contracting officers and all applicants, as applicable, shall follow in soliciting for and awarding Federal or federally assisted construction contracts. Procedures also are established which administering agencies shall follow in making any grant, contract, loan, insurance, or guarantee involving federally assisted construction which is not exempt from the requirements of Executive Order 11246, as amended. In addition, this part applies to construction work performed by construction contractors and subcontractors for Federal non-construction contractors and subcontractors if the construction work is necessary in whole or in part to the performance of a non-construction contract or subcontract.

[43 FR 49254, OCT. 20, 1978; 43 FR 51404, NOV. 3, 1978]

60-4.2 Solicitations.

(a) All Federal contracting officers and all applicants shall include the notice set forth in paragraph (d) of this section and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth in § 60-4.3 of this part in all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of the part. Administering agencies shall require the inclusion of the notice set forth in paragraph (d) of this section and the specifications set forth in § 60-4.3 of this part as a condition of any grant, contract, subcontract, loan, insurance or guarantee involving federally assisted construction covered by this Part 60-4.

(b) All non-construction contractors covered by Executive Order 11246 and the implementing regulations shall include the notice in paragraph (d) of this section in all construction agreements, which are necessary in whole or in part to the performance of the covered non-construction contract.

(c) Contracting officers, applicants and non-construction contractors shall give written notice to the Director within 10 working days of award of a contract subject to these provisions. The notification shall include the name, address and telephone number of the contractor; employer identification number; dollar amount of the contract, estimated starting and completion dates of the contract; the contract number; and geographical area in which the contract is to be performed.

(d) The following notice shall be included in, and shall be a part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of this part (see 41 CFR 60-4.2(a)):

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Offeror or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Time- tables	Goals for minority participation for each trade	Goals for female participation in each trade
	14.7%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

[43 FR 49254, OCT. 20, 1978; 43 FR 51401, NOV. 3, 1978, AS AMENDED AT 45 FR 65977, OCT. 3, 1980]

60-4.3 Equal Opportunity Clauses.

(a) The equal opportunity clause published at 41 CFR 60-1.4(a) of this chapter is required to be included in, and is part of, all nonexempt Federal contracts and subcontracts, including construction contracts and subcontracts. The equal opportunity clause published at 41 CFR 60-1.4(b) is required to be included in, and is a part of, all nonexempt federally assisted construction contracts and subcontracts. In addition to the clauses described above, all Federal contracting officers, all applicants and all non-construction contractors, as applicable, shall include the specifications set forth in this section in all Federal and federally assisted construction contracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of this part and in construction subcontracts in excess of \$10,000 necessary in whole or in part to the performance of non-construction Federal contracts and subcontracts covered under the Executive order.

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. As used in these specifications:

a. "Covered area," means the geographical area described in the solicitation from which this contract resulted:

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals

for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, nor the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, the Contractor must employ such apprentices and trainees during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The

Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore; along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written

notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the

Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws, which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(b) The notice set forth in 41 CFR 60-4.2 and the specifications set forth in 41 CFR 60-4.3 replace the New Form for Federal Equal Employment Opportunity Bid Conditions for Federal and Federally Assisted Construction published at 41 FR 32482 and commonly known as the Model Federal EEO Bid Conditions, and the New Form shall not be used after the regulations in 41 CFR Part 60-4 become effective.

[43 FR 49254, OCT. 20, 1978; 43 FR 51401, NOV. 3, 1978, AS AMENDED AT 45 FR 65978, OCT. 3, 1980]

60-4.4 Affirmative Action Requirements.

(a) To implement the affirmative action requirements of Executive Order 11246 in the construction industry, the Office of Federal Contract Compliance Programs previously has approved affirmative action programs commonly referred to as "Hometown Plans," has promulgated affirmative action plans referred to as "Imposed Plans" and has approved "Special Bid Conditions" for high impact projects constructed in areas not covered by a Hometown or an Imposed Plan. All solicitations for construction contracts made after the effective date of the regulations in this part shall include the notice specified in § 60-4.2 of this part and the specifications in § 60-4.3 of this part in lieu of the Hometown and Imposed Plans including the Philadelphia Plan and Special Bid Conditions. Until the Director has issued an order pursuant to § 60-4.6 of this part establishing goals and timetables for minorities in the appropriate geographical areas or for a project covered by Special Bid Conditions, the goals and timetables for minorities to be inserted in the Notice required by 41 CFR 60-4.2 shall be the goals and timetables contained in the Hometown Plan, Imposed Plan or Special Bid Conditions presently covering the respective geographical area or project involved.

(b) Signatories to a Hometown Plan (including heavy highway affirmative action plans) shall have 45 days from the effective date of the regulations in this part to submit under such a Plan (for the director's approval) goals and timetables for women and to include female representation on the Hometown Plan Administrative Committee. Such goals for female representation shall be at least as high as the goals established for female representation in the notice issued pursuant to 41 CFR 60-4.6. Failure of the signatories, within the 45-day period, to include female representation and to submit goals for women or a new plan, as appropriate, shall result in an automatic termination of the Office of Federal Contract Compliance Program's approval of the Hometown Plan. At any time the Office of Federal Contract Compliance Programs terminates or withdraws its approval of a Hometown Plan, or when the plan expires and another plan is not approved, the contractors signatory to the plan shall be covered automatically by the specifications set forth in § 60-4.3 of this part and by the goals and timetables established for that geographical area pursuant to § 60-4.6 of this part.

60-4.5 Hometown Plans

(a) A contractor participating, either individually or through an association, in an approved Hometown Plan (including heavy highway affirmative action plans) shall comply with its affirmative action obligations under Executive Order 11246 by complying with its obligations under the plan: *Provided*, That each contractor or subcontractor participating in an approved plan is individually required to comply with the equal opportunity clause set forth in 41 CFR 60-1.4; to make a good faith effort to achieve the goals for each trade participating in the plan in which it

has employees; and that the overall good performance by other contractors or subcontractors toward a goal in an approved plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the plan's goals and timetables. If a contractor is not participating in an approved Hometown Plan it shall comply with the specifications set forth in § 60-4.3 of this part and with the goals and timetables for the appropriate area as listed in the notice required by 41 CFR 60-4.2 with regard to that trade. For the purposes of this part 60-4, a contractor is not participating in a Hometown Plan for a particular trade if it:

- (1) Ceases to be signatory to a Hometown Plan covering that trade;
 - (2) Is signatory to a Hometown Plan for that trade but is not party to a collective bargaining agreement for that trade;
 - (3) Is signatory to a Hometown Plan for that trade but is party to a collective bargaining agreement with labor organizations, which are not or cease to be signatories to the same Hometown Plan for that trade;
 - (4) Is signatory to a Hometown Plan for that trade but is party to a collective bargaining agreement with a labor organization for that trade but the two have not jointly executed a specific commitment to minority and female goals and timetables and incorporated the commitment in the Hometown Plan for that trade;
 - (5) Is participating in a Hometown Plan for that trade which is no longer acceptable to the Office of Federal Contract Compliance Programs;
 - (6) Is signatory to a Hometown Plan for that trade but is party to a collective bargaining agreement with a labor organization for that trade and the labor organization and the contractor have failed to make a good faith effort to comply with their obligations under the Hometown Plan for that trade.
- (b) Contractors participating in Hometown Plans must be able to demonstrate their participation and document their compliance with the provision of the Hometown Plan.

[43 FR 49254, OCT. 20, 1978; 43 FR 51401, NOV. 3, 1978]

60-4.6 Goals and Timetables.

The Director, from time to time, shall issue goals and timetables for minority and female utilization, which shall be based on appropriate workforce, demographic, or other relevant data and which shall cover construction projects or construction contracts performed in specific geographical areas. The goals, which shall be applicable to each construction trade in a covered contractor's or subcontractor's entire workforce which is working in the area covered by the goals and timetables, shall be published as notices in the Federal Register, and shall be inserted by the contracting officers and applicants, as applicable, in the Notice required by 41 CFR 60-4.2. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed.

[45 FR 65978, OCT. 3, 1980]

60-4.7 Effect on Other Regulations.

The regulations in this part are in addition to the regulations contained in this chapter, which apply to construction contractors and subcontractors generally. See particularly, 41 CFR 60-1.4 (a), (b), (c), (d), and (e); 60-1.5; 60-1.7; 60-1.8; 60-1.26; 60-1.29; 60-1.30; 60-1.32; 60-1.41; 60-1.42; 60-1.43; and 41 CFR Part 60-3; Part 60-20; Part 60-30; Part 60-40; and Part 60-50.

60-4.8 Show Cause Notice.

If an investigation or compliance review reveals that a construction contractor or subcontractor has violated the Executive order, any contract clause, specifications or the regulations in this chapter and if administrative enforcement is contemplated, the Director shall issue to the contractor or subcontractor a notice to show cause which shall contain the items specified in paragraphs (i) through (iv) of 41 CFR 60-2.2(c)(1). If the contractor does not show good cause within 30 days, or in the alternative, fails to enter an acceptable conciliation agreement which includes where appropriate, make up goals and timetables, back pay, and seniority relief for affected class members, the OFCCP shall follow the procedure in 41 CFR 60-1.26(b): *Provided*, That where a conciliation agreement has been violated, no show cause notice is required prior to the initiation of enforcement proceedings.

[43 FR 49254, OCT. 20, 1978; 43 FR 51401, NOV. 3, 1978]

60-4.9 Incorporation by Operation of the Order.

By operation of the order, the equal opportunity clause contained in § 60-1.4, the Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246) contained in § 60-4.2, and the Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) contained in § 60-4.3 shall be deemed to be a part of every solicitation or of every contract and subcontract, as appropriate, required by the order and the regulations in this chapter to include such clauses whether or not they are physically incorporated in such solicitation or contract and whether or not the contract is written.

U.S. ENVIRONMENTAL PROTECTION AGENCY**CERTIFICATION OF NONSEGREGATED FACILITIES**

(Applicable to federally assisted construction contracts and related subcontracts exceeding \$10,000 that are not exempt from the Equal Opportunity clause.)

The federally assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom or otherwise. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certification in his files.

Signature

Date

Name and Title of Signer (Please type)

Firm Name

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

NOTICE TO LABOR UNIONS OR OTHER ORGANIZATIONS OF WORKERS

NONDISCRIMINATION IN EMPLOYMENT

To: _____
(Name of union or organization of workers)

The undersigned currently holds contract(s) with _____
(name of applicant)

involving funds or credit of the U.S. Government or (a) subcontract(s) with a prime contractor holding such contract(s).

You are advised that under the provisions of the above contract(s) or subcontract(s) and in accordance with Executive Order 11246, as amended, dated September 24, 1965, as amended, the undersigned is obliged not to discriminate against any employee or applicant for employment because of race, color, creed or national origin. This obligation not to discriminate in employment includes, but is not limited to, the following:

HIRING, PLACEMENT, UPGRADING, TRANSFER OR DEMOTION, RECRUITMENT,
ADVERTISING, OR SOLICITATION FOR EMPLOYMENT, TRAINING DURING
EMPLOYMENT, RATES OF PAY OR OTHER FORMS OF COMPENSATION, SELECTION
FOR TRAINING INCLUDING APPRENTICESHIP, LAYOFF OR TERMINATION.

This notice is furnished you pursuant to the provisions of the above contract(s) or subcontracts(s) and Executive Order 11246, as amended.

Copies of this notice will be posted by the undersigned in conspicuous places available to employees or applicants for employment.

(Contractor or Subcontractor)

(Date)

EPA Project Control #: L17-5518

United States Environmental Protection Agency
Washington, DC 20460

Certification Regarding Debarment, Suspension and Other Responsibility Matters

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

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

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

(Typed Name & Title of Authorized Representative)

(Signature of Authorized Representative) (Date)

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

Instructions

Under Executive Order 12549 an individual or organization debarred or excluded from participation in Federal assistance or benefit programs may not receive any assistance award under a Federal program, or a sub-agreement thereunder for \$25,000 or more.

Accordingly, each prospective recipient of an EPA grant, loan, or cooperative agreement and any contract or sub-agreement participant thereunder must complete the attached certification or provide an explanation why they cannot. For further details, see 40 CFR 32.510, Participants' responsibilities, in the attached regulation.

Where to Submit

The prospective EPA grant, loan, or cooperative agreement recipient must return the signed certification or explanation with its application to the appropriate EPA Headquarters or Regional office, as required in the application instructions.

A prospective prime contractor must submit a completed certification or explanation to the individual or organization awarding the contract.

Each prospective subcontractor must submit a completed certification or explanation to the prime contractor for the project.

How to Obtain Forms:

EPA includes the certification form, instructions, and a copy of its implementing regulation (40 CFR Part 32) in each application kit. Applicants may reproduce these materials as needed and provide them to their prospective prime contractor, who, in turn, may reproduce and provide them to prospective subcontractors.

Additional copies/assistance may be requested from:

Compliance Branch
Grants Administration Division (PM-216F)
U.S. Environmental Protection Agency
401 M Street, SW
Washington DC 20460
(Telephone: 202-475-8025)

**Construction Contracts of Loan Recipient and Other Sections From
"Procedures for Issuing Loans from the Water Pollution Control Loan Program"**

Section 365.420(b)(2) Change Orders

- A) When the loan recipient authorizes the contractor to add, delete, or revise the work within the general scope of the contract documents, or authorizes an adjustment in the contract price or contract time, the loan recipient shall submit a change order to the Agency.
- B) For each change order, the loan recipient shall submit to the Agency for approval the following documentation:
 - i) one copy of the fully executed change order signed by the loan recipient, construction engineer, and the contractor; and
 - ii) a description of any changes, with justification for the changes.
- C) Prior approval by the Agency of a change order is required when a change order results in:
 - i) alterations in design scope that require a modification to a construction permit; or
 - ii) an increase in the amount of loan funds needed to complete the project.
- D) Failure to give timely notice of proposed project changes or action by the loan recipient that is not consistent with the Agency's determination on those changes may result in disallowance of loan participation for costs incurred that are attributable to the change.

Section 365.620(f) Required Construction Contract Provisions

Each construction contract shall include the following provisions:

- 1) Audit; access to records:
 - A) The contractor shall maintain books, records, documents and other evidence directly pertinent to performance on loan work in accordance with Generally Accepted Accounting Principles (GAAP). The contractor shall also maintain the financial information and data used by the contractor in the preparation or support of any cost submissions required under Section 365.420 (b)(2) of the loan rules and a copy of the cost summary submitted to the owner. The Illinois Auditor General, the owner, the Agency, or any of their authorized representatives shall have access to the books, records, papers, documents, and other evidence for purposes of inspection, audit, examination, excerpts, transcriptions, and copying. The contractor shall provide facilities for access and inspection.
 - B) For a formally advertised, competitively awarded, fixed price contract, the contractor shall include access to records as required by subsection (a)(1)(A) of the loan rules for

all negotiated change orders and contract amendments in excess of \$25,000 that affect the contract price. In the case of all other prime contracts, the contractor shall agree to include access to records required by subsection (a)(1)(A) in all contracts and all tier subcontracts or change orders in excess of \$25,000 that are directly related to project performance.

- C) Audits shall be in accordance with auditing standards generally accepted in the United States.
- D) The contractor shall agree to the disclosure of all information and reports resulting from access to records required by subsection (a)(1)(A). When the audit concerns the contractor, the auditing agency shall afford the contractor an opportunity for an audit exit conference and an opportunity to comment on the pertinent portions of the draft audit report. The final audit report shall include the written comments, if any, of the audited parties.
- E) The records required by subsection (a)(1)(A) shall be maintained and made available during performance of the work under the loan agreement and for 3 years after the date of the final loan audit. In addition, records that relate to any dispute or litigation or the settlement of claims arising out of any performance, costs or items to which an audit exception has been taken, shall be maintained and made available for 3 years after resolution of the dispute, appeal, litigation, claim or exception.
- F) The right of access will generally be exercised with respect to financial records under:
 - i) Negotiated prime contracts;
 - ii) Negotiated change orders or contract amendments in excess of \$25,000 affecting the price of any formally advertised, competitively awarded, fixed price contract; and
 - iii) Subcontracts or purchase orders under any contract other than a formally advertised, competitively awarded, fixed price contract.
- G) The right of access will generally not be exercised with respect to a prime contract, subcontract, or purchase order awarded after effective price competition. In any event, the right of access shall be exercised under any type of contract or subcontract:
 - i) With respect to records pertaining directly to contract performance, excluding any financial records of the contractor; and
 - ii) If there is any indication that fraud, gross abuse, or corrupt practices may be involved in the award or performance of the contract or subcontract.

2) Covenant against contingent fees.

The contractor shall warrant that no person or selling agency has been employed or retained to solicit or secure the contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee. For breach or violation of this warranty, the owner shall have the right to annul the contract without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

3) Wage provisions.

The Contractor shall pay prevailing wages in accordance with the Davis-Bacon Act (40 USC 3141 through 3148) as defined by the U.S. Department of Labor.

4) Disadvantaged business enterprise requirements.

The contractor shall provide evidence that the contractor has taken affirmative steps in accordance with 40 CFR 33 to assure that disadvantaged business enterprises are used when possible as sources of supplies, equipment, construction, and services, consistent with the provisions of the Agency's Operating Agreement with USEPA.

5) Debarment and suspension provisions.

The contract shall require the successful bidders to submit a Certificate Regarding Debarment, Suspension and Other Responsibility Matters (EPA Form 5700-49) showing compliance with federal Executive Order 12549.

6) Nonsegregated facilities provisions

The contractor shall be required to submit a Certification of Nonsegregated Facilities on forms provided by the Agency.

7) American Iron and Steel

The contractor shall be required to use American Iron and Steel, if required by USEPA for that fiscal year.

8) A clause that provides:

"No contractor or subcontractor shall discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor or subcontractor shall carry out applicable requirements of 40 CFR 33 in the award and administration of contracts awarded under the WPCLP. Failure by the contractor or subcontractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies."

Section 365.620(g) Subcontracts Under Construction Contracts

The award or execution of all subcontracts by a prime contractor and the procurement and negotiation procedures used by the prime contractor shall comply with:

- 1) All applicable provisions of federal, State and local law;
- 2) All provisions of Part 365 regarding fraud and other unlawful or corrupt practices;
- 3) All provisions of Part 365 with respect to access to facilities, records and audit of records; and
- 4) All provisions of subsection 365.620(f)(5) that require a Certification Regarding Debarment, Suspension, and Other Responsibility Matters (EPA Form 5700-49) showing compliance with any controlling federal Executive Orders.

Section 365.620(h) Contractor Bankruptcy

In the event of a contractor bankruptcy, the loan recipient shall notify the Agency and shall keep the Agency advised of any negotiations with the bonding company, including any proposed settlement. The Agency may participate in those negotiations and will advise the loan recipient of the impact of any proposed settlement to the loan agreement. The loan recipient shall be responsible for assuring that every appropriate procedure and incidental legal requirement is observed in advertising for bids and re-awarding a construction contract.

Section 365.620(i) Access

Every contract entered by the loan recipient for construction work, and every subagreement, shall provide the Agency representatives with access to the work. The contractor or subcontractor shall provide facilities for such access and inspection.

Section 365.640(c) Remedies

All claims, counter-claims, disputes and other matters in question between the recipient and the contractor arising out of, or relating to, a subagreement or its breach shall be decided by arbitration if the parties agree, or in a court of competent jurisdiction within the State.

Bidder Certification
In Compliance with Article 33E-11 to the
"Criminal Code of 2012"

I _____, do hereby certify that:

1. I am _____ of the _____
Name Position Firm
and have authority to execute this certification on behalf of the firm

2. This firm is not barred from bidding on this contract due to either a Bid-rigging or Bid Rotating violation as set forth in Article 33E-11 to the "Illinois Criminal Code of 2012 [720 ILCS 5/33E-11]"

Name of Firm _____

Signature _____

Title _____

Date _____

Corporate Seal (where appropriate)

On this _____ day of _____ 20____, before me appeared (Name)

_____ to me personally known,
who, being duly sworn, did execute the foregoing affidavit, and did state that he or she was properly
authorized by (Name of Firm) _____ to execute the affidavit and did
so as his or her free act and deed.

Notary Public _____ Commission Expires _____

Notary Seal

Specifications for Disadvantaged Business Enterprise Participation

(Name of Loan Recipient) Metro East Sanitary District

I. Disadvantaged Business Enterprise Policy

- A. It is the policy of the State of Illinois to award a fair share of sub-agreements to disadvantaged businesses (DBEs). In complying with this requirement, contractors are required to take affirmative steps to assure that disadvantaged businesses are used when possible as sources of supplies, equipment, construction, and services as explained herein.
- B. These specifications define the terms, conditions, and requirements of the State Revolving Fund Loan Program, and the Metro East Sanitary District 's policy and procedures for complying with these requirements.
- C. As required by the award conditions of USEPA's Assistance Agreement with IEPA, the fair share percentages are 5% for MBEs and 12% for WBEs.

II. Pre-Contract Award Obligations

- A. All bidders are required to advertise subcontracting opportunities and to negotiate with disadvantaged businesses prior to bid opening. Failure to document such affirmative efforts shall be deemed, relative to disadvantaged business compliance, non-responsive.
- B. To establish a bid as responsible, the bidder will be required to document the proposed utilization of disadvantaged businesses with letters of intent signed by the bidder and by the disadvantaged business listed in the bid. The documentation requirements are outlined in Section III of this document.
- C. (Name of Loan Recipient) Metro East Sanitary District 's disadvantaged business policy clearly intends for bidders to contact and encourage the participation of disadvantaged businesses prior to bid opening. Affirmative efforts (the written record of conscientious and honest communications between the bidder and disadvantaged business) must be initiated and completed by the bidder prior to bid opening. All bidders must document compliance with the requirements of the disadvantaged business policy.

III. Evaluation of Disadvantaged Business Utilization and Affirmative Efforts

- A. As a prerequisite to demonstrate compliance with the (Name of Loan Recipient) Metro East Sanitary District 's disadvantaged business policy, ALL bidders shall provide the following with its bid:
 - 1. Completed and signed certification from the bidder(s), attesting that the bidder will award no sub-agreements, including the procurement of equipment, materials, supplies and services, in the performance of this contract.

OR

2. "Certification of publication," or adequate proof of publication, including an actual copy of the newspaper advertisement from a daily newspaper. **The advertisement must run one day at least (16) days prior to bid opening.** An example advertisement follows this section.

Bidders may publish the advertisement in an established, online bidder's clearinghouse such as the "Dodge Report (<http://construction.com/dodge/>)". If an online advertisement is placed with the "Dodge Report" or an equivalent website, a screenshot of the advertisement along with the webpage address, and a payment receipt is required as documentation. **The advertisement must run one day at least (16) days prior to bid opening.**

3. List of all disadvantaged business enterprise (DBE) and non-DBE's that submitted proposals to the bidder along with the date of the proposal. Names, addresses, phone number and/or e-mail are required.
4. List of disadvantaged businesses not being utilized and justification for non-utilization.
5. If DBE subcontractors will be utilized for the project, a completed and signed copy of IEPA DBE Form No. 3 (DBE Subcontractor Utilization Form) or an equivalent "Notice of Intent" is needed from each subcontractor.
6. If DBE subcontractors will be utilized for the project, a completed and signed certification from the bidder(s), attesting that the bidder has no controlling or dominating interest or conflict of interest with the disadvantaged business that will be utilized.
7. In instances where the bidder(s) does not receive any proposals from disadvantaged businesses prior to bid opening, the bidder(s) must provide a written certification attesting that no proposals were received.

Failure to submit the documentation pursuant to the requirements of A (1-7) above may cause rejection of the bid as non-responsive.

IV. Sanctions

- A. The (Name of Loan Recipient) Metro East Sanitary District may reject one or all bids when the information submitted by the bidder(s) fails to demonstrate compliance with the disadvantaged business requirements (i.e., the bidder fails to place their pre-bid advertisement in a daily newspaper, or approved website, at least 16 days prior to bid opening).
- B. Upon finding that any Party has not complied with the requirements of these specifications, including misrepresenting a firm as a disadvantaged business, any one or a combination of the following actions may be taken.
 1. Declare the bidder and/or subcontractor non-responsible and therefore, ineligible for contract award.
 2. Disallow all contract costs associated with non-compliance.

3. Refer matters which may be fraudulent to the Illinois Attorney General.

V. Post-Contract Award Compliance

- A. As required by the award conditions of USEPA's Assistance Agreement with IEPA, all sub-agreements of the prime contractor must identify that the fair share percentages are 5% for MBEs and 12 % for WBEs.
- B. After award of the prime contract, copies of all disadvantaged business-related sub-agreements between the prime contractor and subcontractors shall be submitted to the owner.
- C. After bid submission, any changes in previously reported disadvantaged businesses utilization shall be handled in accordance with 40 CFR Part 33.302(b-h). If the contractor fails to initiate such actions, the owner may withhold payments and/or institute other appropriate sanctions.

**Suggested Disadvantaged Business (DBE)
Advertisement for Construction Contractors**

Notice to Disadvantaged Businesses

_____, _____, _____, is
(Name of Company) (Address of Company) (Telephone)

seeking disadvantaged businesses for the _____
(Name of Loan Recipient)

Project for subcontracting opportunities in the following areas: _____,
_____, _____

All disadvantaged businesses should contact, **IN WRITING**, (certified letter, return receipt requested),
_____ to discuss the subcontracting opportunities. All negotiations must
(Company Contact Person)

be completed prior to bid opening _____.
(Date of Bid Opening)

*The advertisement must clearly state the method of evaluating the proposals or quotations, and the relative importance attached to each criterion. Bidders must uniformly and objectively evaluate the proposals submitted by disadvantaged business in response to the advertisement based upon the evaluation criteria stated in the advertisement. The evaluation criteria must not be restrictive or exclusionary.

Summary Report of Disadvantaged Business Enterprise Requirements for Contractors

- 1) Completed and signed certification from bidder(s), attesting that the bidder will award no sub-agreements, including the procurement of equipment, materials, supplies and services in the performance of this contract (may use IEPA DBE Form #1).

OR

"Certificate of publication, or adequate evidence of proof of publication, including an actual copy of the newspaper advertisement from a daily publication. For advertisements placed in a construction project clearinghouse such as www.construction.com, a screenshot of the advertisement, link to website, and receipt is required for proof of advertising.

- 2) List of all disadvantaged business enterprises (DBE) and non-DBE's that submitted proposals to the bidder/prime contractor. Specify as DBE or non-DBE, type of DBE, and the other information listed below (DBE Form #4 may be used for this purpose).

Name of Company
 Name of Owners
 Address of Company
 E-mail Address of Company
 Telephone Number
 Date of Proposal
 Type of Business
 Type of DBE
 Description of work to be performed

- 3) List of disadvantaged businesses that submitted proposals to the bidder but will not be utilized. Justification for non-utilization must be provided (may use IEPA DBE Form #1).
- 4) Completed and signed copies IEPA DBE Form #3 (Subcontractor Utilization Form) or equivalent "Notice of Intent". Only applies if using DBE subcontractors.
- 5) Completed and signed certification from bidder(s) attesting that the bidder has no dominating or conflict of interest with the disadvantaged business to be utilized (IEPA DBE Form #1). Only applies if using DBE subcontractors.
- 6) In instances where the bidder(s) does not receive any proposals from disadvantaged businesses prior to bid opening, the bidder(s) must provide a written certification attesting that no proposals were received (IEPA DBE Form #1).
- 7) **Note:** DBE Form #2 is **not** included in this packet. It is for consultants/engineers to report DBE activity. This form may be found in IEPA's DBE Guidance Manual which is available on the Agency's website or mailed upon request by calling 217-782-2027.

IEPA Disadvantaged Business Enterprise (DBE) Program Form #1
Contractor Certification Form

(To be completed by all Prime Contractors)

Please check the appropriate boxes that apply and complete the information on the bottom of the form.

- ☐ This firm will award no subcontracts (including in the procurement of equipment, supplies, or services), in the performance of this contract.
- ☐ This firm advertised for DBE subcontractors according to the good faith efforts outlined in the IEPA DBE Guidance Document.
- ☐ This firm received proposals from DBE(s) that will not be utilized. A list of the DBEs not hired, along with their address, phone number, and reason(s) for non-utilization, is below.

- ☐ This firm did not receive any inquiries from DBEs.

I certify that the above is true. I further certify that this firm and its partners, directors, and officers do not possess a controlling interest in ownership or conflict of interest or any other authority to control the DBE to be used during the performance of the contracts.

By: _____

NAME: _____

TITLE: _____

Company: _____

Date: ____/ ____/ ____

EPA Disadvantaged Business Enterprise (DBE) Program Form #3 Subcontractor Utilization Form

(Only complete this form if DBE subcontractors or sub-consultants will be working on a project)

This form is intended to capture the DBE subcontractor's description of work to be performed and the price of the work submitted to the prime contractor. All subcontractors must complete this form, and it must be included in the prime contractor's bid package.

Subcontractor Name	Project Name
Contact Person's Name & Title	
Address	
Telephone	Email
DBE Certified By:	Select all that apply. At least one is required: MBE WBE SBE DBE
Prime Contractor Name	
Type of Work to be Performed	Cost Estimate of Work

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to using the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 C.F.R. Part 33 Section 33.302(c).

Prime Contractor Signature:	Print Name:
Date:	Title:
Subcontractor Signature:	Print Name:
Date:	Title:

IEPA Disadvantaged Business Enterprise (DBE) Program Form #4, Bidders List
(Only complete this form if subcontractors or sub-consultants will be working on a project)

Using this form/format is optional. Other formats are acceptable.

Company Name & Contact Person	Address	Phone No. w/ area code	Email	Proposed Work (supplies, paint, paint etc.)	DBE Status (MBE, WBE, DBE, SBE or Not Applicable)
					Check if Hired <input type="checkbox"/>
					Check if Hired <input type="checkbox"/>
					Check if Hired <input type="checkbox"/>
					Check if Hired <input type="checkbox"/>

**Bidder Certification Regarding the Use of
American Iron and Steel Products**

I _____, do hereby certify that:
Name

1. I am _____(title) of the _____ (company, partnership, etc.) and have authority to execute this certification on behalf of the firm.
2. This firm is aware that all iron and steel products used for this project must be produced in the United States per Section 436 (a) – (f) of the Consolidated Appropriations Act, 2014.
3. This firm is aware that the use of American iron and steel products applies to all projects for the construction, alteration, maintenance, or repair of publicly owned treatment works (POTW) or public water systems.
4. This firm understands the term “iron and steel products” refers to the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.
5. I am aware that this requirement applies to all portions of the project that are subcontracted.

Name of Company _____

Signature _____

Title _____

Date _____

Corporate Seal (where appropriate)

Requirements Specific to American Iron and Steel

The Consolidated Appropriations Act of 2014 (Public Law 113-76) first included an "American Iron and Steel (AIS)" requirement that requires Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) loan recipients to use iron and steel products that are produced in the United States for projects involving the construction, alteration, maintenance, or repair of a public water system or treatment works if the project is funded through a CWSRF or a DWSRF loan. Guidance is available on USEPA's website: http://water.epa.gov/grants_funding/aisrequirement.cfm. Waivers from the requirements are available under certain circumstances.

For CWSRF or DWSRF purposes, an iron or steel product is one of the following made primarily of iron or steel that is permanently incorporated into the public water system or treatment works:

- Pipes (lined or unlined) and fittings;
- Manhole Covers;
- Municipal Castings (defined in more detail below);
- Hydrants;
- Tanks;
- Flanges;
- Pipe clamps and restraints;
- Valves;
- Structural steel (defined in more detail below);
- Reinforced precast concrete; and
- Construction materials (defined in more detail below).

For one of the listed products to be considered subject to the AIS requirements, it must be made of greater than 50% iron or steel, measured by costs. The cost should be based on the material costs.

For the purposes of AIS, steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of steel covers carbon steel, alloy steel, stainless steel, tool steel and other specialty steels.

For the purposes of AIS, production in the United States of the iron or steel products used in the project requires that all manufacturing processes, including application of coatings, must take place in the United States, except for metallurgical processes involving refinement of steel additives. All manufacturing processes includes processes such as melting, refining, forming, rolling, drawing, finishing, fabricating and coating. Further, if a domestic iron and steel product is taken out of the US for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone and iron and steel scrap are not covered by the AIS requirement, and the material(s), if any, being applied as a coating are similarly not covered. Non-iron or steel components of

an iron and steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-iron and steel components do not have to be of domestic origin. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-US sources.

For AIS, municipal castings are cast iron or steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and surface infrastructure. They are typically made of grey or ductile iron, or steel. Examples of municipal castings are:

Access Hatches;	Drainage Greates, Frames and Curb Inlets;
Ballast Screen;	Inlets;
Benches (Iron or Steel);	Junction Boxes;
Bollards;	Lampposts;
Cast Bases;	Manhole Covers, Rings and Frames, Risers;
Cast Iron Hinged Hatches, Square and Rectangular;	Meter Boxes;
Cast Iron Riser Rings;	Service Boxes;
Catch Basin Inlet;	Steel Hinged Hatches, Square & Rectangular;
Cleanout/Monument Boxes;	Steel Riser Rings;
Construction Covers and Frames;	Trash receptacles;
Curb and Corner Guards;	Tree Grates;
Curb Openings;	Tree Guards;
Detectable Warning Plates;	Trench Grates; and
Downspout Shoes (Boot, Inlet);	Valve Boxes, Covers and Risers.

For AIS, structural steel is rolled flanged shapes, having at least one dimension of their cross-section three inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I-beams, channels, angles, tees and zeeks. Other shapes include H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

For AIS, construction materials are those articles, materials, or supplies made primarily of iron and steel, that are permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems. Some of these products may overlap with what is also considered “structural steel.” This includes, but is not limited to, the following products: wire rod, bar, angles, concrete reinforcing bar, wire, wire cloth, wire rope and cables, tubing, framing, joists, trusses, fasteners (i.e., nuts and bolts), welding rods, decking, grating, railings, stairs, access ramps, fire escapes, ladders, wall panels, dome structures, roofing, ductwork, surface drains, cable handling systems, manhole steps, fencing and fence tubing, guardrails, doors, and stationary screens.

For the purposes of AIS, mechanical and electrical components, equipment and systems are not considered construction materials. Mechanical equipment is typically that which has motorized parts

and/or is powered by a motor. Electrical equipment is typically any machine powered by electricity and includes components that are part of the electrical distribution system.

There are specific requirements for precast concrete to comply with AIS. While reinforced precast concrete may not be at least 50% iron or steel, in this case, the reinforcing bar and wire must be produced in the US and meet the same standards as for any other iron or steel product. Additionally, the casting of the concrete product must take place in the US. The cement and other raw materials used in concrete production are not required to be of domestic origin. If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered a construction material and must be produced in the US.

Recordkeeping for Iron and Steel Products: Documenting the Country of Origin for Iron and Steel Products for Loan Programs

Loan recipients with assistance from their general contractor must be able to verify that products used in their projects comply with the AIS requirements. USEPA recommends loan recipients use a “Step Certification” process to ensure that producers adhere to the AIS requirements. Step certification is a process under which each handler (supplier, fabricator, manufacturer, etc.) of the iron and steel products certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin. A certification can be quite simple as long as it includes the name of the manufacturer, the location of the manufacturing facility (not company headquarters), a description of the product or item being delivered, and a signature by a manufacturer’s responsible party. An example of this type of certification is attached.

Certification could be achieved by other methods such as requiring the final manufacturer, who delivers the iron/steel products to the worksite, to provide certification that all manufacturing processes occurred in the US. While this type of certification is easier and acceptable, it may not provide the same degree of assurance and additional documentation may be needed. USEPA auditors recommend keeping records of when and where the products were delivered. Examples include: Perry Water Plant on August 3, 2017, or Jankousky Construction Offices on October 5, 2017. Records from the manufacturer should refer to specific items such as pipes, valves, meters. Try to avoid records containing broad statements such as, “All products delivered were made in the USA.”

Regardless of the method, documents regarding the country of origin for iron and steel products should be collected and maintained by all loan recipients. Having a good paper trail is invaluable during an inspection or audit.

Information is available at <http://www.epa.illinois.gov/topics/grants-loans/water-financial-assistance/state-revolving-fund/guidance/index>.

Sample Certification Letter

The following information is provided as a sample letter of step certification for AIS compliance. The completed letter is provided to the construction contractor or loan applicant from the supplier, fabricator, manufacturer, etc. of iron and steel products. Documentation must be provided on company letterhead. If e-mail is used, documents should be scanned so the company letterhead is visible.

Company Letterhead

Date

Company Name
Company Address
City, State, Zip

Subject: American Iron and Steel Step Certification for Project (xxx ***Identify Project Here*** xxx)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirements as mandated in EPA's State Revolving Fund Programs.

Item, Products, and/or Materials:

1. XXX
2. XXX
3. XXX

Such process took place at the following location (City and State must be included):

If any of the above compliance statements change while providing material to the project we will immediately notify the prime contractor and the engineer.

Signed by Company Representative

Employment of Illinois Workers on Public Works Act

This law comes into effect following two consecutive months of a state unemployment rate above 5 percent. More information about the Employment of Illinois Workers on Public Works Act can be found here: <http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=549&ChapterID=7>.

The Employment of IL Workers on Public Works Act requires the workforce on all public works projects to be comprised of a minimum of 90% Illinois residents.

The Illinois Department of Labor (IDOL) administers the Employment of Illinois Workers on Public Works Act, which was enacted to alleviate unemployment in Illinois by ensuring that most workers on public works projects live in the state. The requirement applies to all labor on public works projects or improvements. That includes public works projects that are funded in whole or in part with state funds or funds administered by the state of Illinois. Any public works project financed in whole or in part by federal funds administered by the state of Illinois is covered under the provisions of this act.

By signing below, the Contractor confirms awareness of this requirement.

(Typed Name & Title of Authorized Representative)

(Signature of Authorized Representative)

(Date)

(Company/Organization)

Illinois Works Jobs Program Act – Apprenticeship Initiative **Information for Contractors**

Summary: The Illinois Works Jobs Program Act, 30 ILCS 559/Art. 20, is a statewide initiative to ensure that all Illinois residents have access to State capital projects and careers in the construction industry and building trades and to provide contracting and employment opportunities to historically underrepresented populations in the construction industry. This will be accomplished through three programs created by the Illinois Works Jobs Program Act: the [Illinois Works Apprenticeship Initiative](#), the Illinois Works Pre-Apprenticeship Program, and the Illinois Works Bid Credit Program. Additional information is available at the following website: <https://www2.illinois.gov/dceo/WorkforceDevelopment/Pages/IllinoisWorksJobsProgramAct.aspx>.

The goal of the Illinois Works Apprenticeship Initiative (“10% apprenticeship goal”) is that for projects estimated to cost \$500,000 or more, apprentices will perform either 10% of the total labor hours actually worked in each prevailing wage classification or 10% of the estimated labor hours in each prevailing wage classification, whichever is less. The 10% apprenticeship goal applies to projects being paid for in whole or in part by appropriated capital funds to construct a public work either through a contract or grant issued by a State agency. A determination was made that this requirement also applies to IEPA loans. The \$500,000 threshold applies to the total project cost and NOT the total cost or value of an individual construction contract.

Certification: Apprentices are required to be U.S. Dept. of Labor certified (not limited to pre-apprentice program graduates).

Applicability

If a project is estimated to received \$500,000 or more of State Capital Funding for the Project:

If the state’s contribution to the project amount equals 50% or more of the cost for the project, the 10% apprenticeship requirement applies to all prevailing wage eligible work performed by contractors on the public works project.

If the state’s contribution to the project is less than 50% of the cost for the project, the 10% apprenticeship requirement applies only to prevailing wage eligible work being funded from state funds.

The Project has less than \$500,000 of State Capital Funding, but the Total Estimated Project Cost is \$500,000 or more:

If the state’s contribution to the project amount equals 50% or more of the estimated cost for the project, the 10% apprenticeship requirement applies to all prevailing wage eligible work performed by contractors on the public works project.

If the state's contribution to the project is less than 50% of the estimated cost for the project, the 10% apprenticeship requirement does not apply.

Total Estimated Project Cost is less than \$500,000: The 10% apprenticeship requirement does not apply. The \$500,000 threshold applies to the total project cost and NOT the total cost or value of an individual construction contract.

Waivers from the Requirements: If goals cannot be met, the state has discretion to grant waivers, reductions or to hold public hearings on the issue. Factors to be considered include the scale of the project and whether the contractor or subcontractor seeking the action has previously requested reductions or waivers. A waiver form is available on the IEPA website at: <https://www2.illinois.gov/epa/Documents/epa-forms/water/financial-assistance/apprenticeship/Waiver-Request.pdf>. The form can also be obtained from DCEO.

Reporting: An example quarterly reporting form is attached. A fillable version is available on the IEPA website. Contractors should coordinate with the loan applicant and their consultant for further instructions regarding these forms. Loan applicants are ultimately responsible for reporting quarterly labor hours to the state, but coordination with their contractor is essential. All loan funded projects are subject to payment of Davis Bacon wages.

For general apprenticeship questions, please contact the Illinois Works Office at: CEO.ILWorks@Illinois.gov.

Illinois Works Apprenticeship Initiative Periodic Grantee Report

Organization Name	FEIN Number	DUNS Number
Grant Awarding Agency	Project Start Date	Project End Date
Grant Number	Estimated Total Project Costs	Estimated Total State Contribution

Applicable Apprenticeship Goal (Select all that apply):

☐ 10% total project cost ☐ 10% total state contribution only

☐ Waiver Approved by IL DCEO IL DCEO Waiver Approval Date

(If a waiver was granted for any prevailing wage classification, the Grantee does not need to report on those classifications on this form.)

☐ Reduction Approved by IL DCEO IL DCEO Reduction Approval Date

(If selected, enter the applicable prevailing wage classification(s) and approved reduced percentage(s).)

Prevailing Wage Classification	Reduced Percentage

Reporting Period:

Period Start Date	Period End Date
-------------------	-----------------

DIVISION 00

PROCUREMENT AND CONTRACTING REQUIREMENTS

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

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and

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NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page *
Article 1 – Definitions and Terminology	1
1.01 Defined Terms.....	1
1.02 Terminology	5
Article 2 – Preliminary Matters	6
2.01 Delivery of Bonds and Evidence of Insurance.....	6
2.02 Copies of Documents.....	6
2.03 Commencement of Contract Times; Notice to Proceed.....	6
2.04 Starting the Work	7
2.05 Before Starting Construction	7
2.06 Preconstruction Conference; Designation of Authorized Representatives	7
2.07 Initial Acceptance of Schedules.....	7
Article 3 – Contract Documents: Intent, Amending, Reuse	8
3.01 Intent.....	8
3.02 Reference Standards.....	8
3.03 Reporting and Resolving Discrepancies.....	8
3.04 Amending and Supplementing Contract Documents.....	9
3.05 Reuse of Documents	10
3.06 Electronic Data.....	10
Article 4 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions; Reference Points.....	10
4.01 Availability of Lands	10
4.02 Subsurface and Physical Conditions	11
4.03 Differing Subsurface or Physical Conditions.....	11
4.04 Underground Facilities	13
4.05 Reference Points	14
4.06 Hazardous Environmental Condition at Site.....	14
Article 5 – Bonds and Insurance	16
5.01 Performance, Payment, and Other Bonds	16
5.02 Licensed Sureties and Insurers	16
5.03 Certificates of Insurance	16
5.04 Contractor’s Insurance	17
5.05 Owner’s Liability Insurance	18
5.06 Property Insurance	18
5.07 Waiver of Rights	20
5.08 Receipt and Application of Insurance Proceeds.....	21

5.09	Acceptance of Bonds and Insurance; Option to Replace	21
5.10	Partial Utilization, Acknowledgment of Property Insurer	21
Article 6 – Contractor’s Responsibilities		22
6.01	Supervision and Superintendence.....	22
6.02	Labor; Working Hours.....	22
6.03	Services, Materials, and Equipment	22
6.04	Progress Schedule	23
6.05	Substitutes and “Or-Equals”	23
6.06	Concerning Subcontractors, Suppliers, and Others.....	25
6.07	Patent Fees and Royalties	27
6.08	Permits.....	27
6.09	Laws and Regulations	27
6.10	Taxes	28
6.11	Use of Site and Other Areas	28
6.12	Record Documents.....	29
6.13	Safety and Protection	29
6.14	Safety Representative.....	30
6.15	Hazard Communication Programs	30
6.16	Emergencies	30
6.17	Shop Drawings and Samples	30
6.18	Continuing the Work.....	32
6.19	Contractor’s General Warranty and Guarantee.....	32
6.20	Indemnification	33
6.21	Delegation of Professional Design Services	34
Article 7 – Other Work at the Site		35
7.01	Related Work at Site	35
7.02	Coordination.....	35
7.03	Legal Relationships.....	36
Article 8 – Owner’s Responsibilities.....		36
8.01	Communications to Contractor.....	36
8.02	Replacement of Engineer.....	36
8.03	Furnish Data	36
8.04	Pay When Due	36
8.05	Lands and Easements; Reports and Tests.....	36
8.06	Insurance	36
8.07	Change Orders.....	36
8.08	Inspections, Tests, and Approvals	37
8.09	Limitations on Owner’s Responsibilities	37
8.10	Undisclosed Hazardous Environmental Condition	37
8.11	Evidence of Financial Arrangements	37
8.12	Compliance with Safety Program.....	37
Article 9 – Engineer’s Status During Construction		37
9.01	Owner’s Representative	37
9.02	Visits to Site	37

9.03	Project Representative	38
9.04	Authorized Variations in Work	38
9.05	Rejecting Defective Work	38
9.06	Shop Drawings, Change Orders and Payments.....	38
9.07	Determinations for Unit Price Work	39
9.08	Decisions on Requirements of Contract Documents and Acceptability of Work.....	39
9.09	Limitations on Engineer's Authority and Responsibilities	39
9.10	Compliance with Safety Program.....	40
Article 10 –	Changes in the Work; Claims	40
10.01	Authorized Changes in the Work	40
10.02	Unauthorized Changes in the Work	40
10.03	Execution of Change Orders.....	41
10.04	Notification to Surety.....	41
10.05	Claims.....	41
Article 11 –	Cost of the Work; Allowances; Unit Price Work	42
11.01	Cost of the Work	42
11.02	Allowances	45
11.03	Unit Price Work	45
Article 12 –	Change of Contract Price; Change of Contract Times	46
12.01	Change of Contract Price	46
12.02	Change of Contract Times	47
12.03	Delays.....	47
Article 13 –	Tests and Inspections; Correction, Removal or Acceptance of Defective Work	48
13.01	Notice of Defects	48
13.02	Access to Work	48
13.03	Tests and Inspections	48
13.04	Uncovering Work.....	49
13.05	Owner May Stop the Work.....	50
13.06	Correction or Removal of Defective Work	50
13.07	Correction Period.....	50
13.08	Acceptance of Defective Work.....	51
13.09	Owner May Correct Defective Work	51
Article 14 –	Payments to Contractor and Completion	52
14.01	Schedule of Values.....	52
14.02	Progress Payments	52
14.03	Contractor's Warranty of Title	55
14.04	Substantial Completion	55
14.05	Partial Utilization	56
14.06	Final Inspection.....	56
14.07	Final Payment.....	57
14.08	Final Completion Delayed.....	58
14.09	Waiver of Claims	58

Article 15 – Suspension of Work and Termination	58
15.01 Owner May Suspend Work	58
15.02 Owner May Terminate for Cause	58
15.03 Owner May Terminate For Convenience.....	60
15.04 Contractor May Stop Work or Terminate	60
Article 16 – Dispute Resolution	61
16.01 Methods and Procedures	61
Article 17 – Miscellaneous	61
17.01 Giving Notice	61
17.02 Computation of Times	61
17.03 Cumulative Remedies	62
17.04 Survival of Obligations	62
17.05 Controlling Law	62
17.06 Headings.....	62

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

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

B. *Intent of Certain Terms or Adjectives:*

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

C. *Day:*

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

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

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

2.02 *Copies of Documents*

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

2.03 *Commencement of Contract Times; Notice to Proceed*

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

2.04 *Starting the Work*

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

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); 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;

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

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

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

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

8.01 *Communications to Contractor*

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

8.02 *Replacement of Engineer*

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

8.03 *Furnish Data*

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

8.04 *Pay When Due*

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

8.05 *Lands and Easements; Reports and Tests*

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

8.06 *Insurance*

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

8.07 *Change Orders*

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

8.08 *Inspections, Tests, and Approvals*

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

8.09 *Limitations on Owner's Responsibilities*

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

8.10 *Undisclosed Hazardous Environmental Condition*

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

8.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

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

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of 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

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

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

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.

SECTION 00 73 00
SUPPLEMENTAL GENERAL CONDITIONS

PART 1 - GENERAL

The following supplements shall modify, delete and/or add to the General Conditions. Where any article, paragraph, or subparagraph in the General Conditions is supplemented by one of the following paragraphs, the provisions of such article, paragraph, or subparagraph shall remain in effect and the supplemental provisions shall be considered as added thereto. Where any article, paragraph or subparagraph in the General Conditions is amended, voided, or superseded by any of the following paragraphs, the provisions of such article paragraph or subparagraph not so amended, voided or superseded shall remain in effect.

1. Page 00 72 00 - 12, Article 2.03 *Commencement of Contract Times & Notice to Proceed*, Paragraph A

Delete last sentence entirely.

2. Page 00 72 00 - 17, Article 4.02 *Subsurface and Physical Conditions*, Paragraph A Reports and drawings.

A. Delete paragraph 4.02 A.2 entirely.

3. Page 00 72 00 - 19, Article 4.04 *Underground Facilities*, Paragraph A.2.b.

Delete the words "shown or indicated in the Contract Documents".

4. Page 00 72 00 - 19, Article 4.04 *Underground Facilities*, Paragraph B.1, first 4 lines.

Revise the first four lines of paragraph to read as follows:

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, and not located by Contractor prior to performing work, Contract shall, . . .

5. Page 00 72 00 - 19, Article 4.04 *Underground Facilities*, Paragraph B.2

Change first word in the fourth line from "shall" to "may".

6. Page 00 72 00 - 22, Article 5.02 *Licensed Sureties and Insurers*, Paragraph A, 2nd line.

Delete the words Owner or.

7. Page 00 72 00 - 23, Article 5.03 *Certificates of Insurance*

Delete paragraph B entirely.

8. Page 00 72 00 - 24, Article 5.04 *Contractor's Insurance*

Insert the following sub-article at the end of this article:

C. INSURANCE REQUIREMENTS - GENERAL

The Contractor shall not commence work under the CONTRACT until all the insurance required by this section or any Special Provisions has been obtained. Certificates of insurance showing coverage as required to be in effect will be filed with the OWNER at the time of entering into the CONTRACT. Certificates of insurance will be on Accord Forms and shall provide thirty (30) days notice of cancellation. The certificates will be signed by the insurance companies or their authorized agents. The insurance companies must be authorized to do business in the State of Illinois, and carry an "A.M. Best" Rating of A or better.

The CONTRACTOR shall maintain in force the coverages required in this section for the term of the CONTRACT. Also, the CONTRACTOR shall not allow any SUBCONTRACTOR to commence work on any portion of the project without evidence that the SUBCONTRACTOR has insurance coverage equal to the coverages required in this section.

The minimum amounts of insurance shall be as follows:

(1). AUTOMOBILE

Including Coverage for owned, non-owned, and hired automobiles.

- a. \$1,000,000 Bodily Injury per Person
- b. \$1,000,000 Bodily Injury per Occurrence
- c. \$1,000,000 Property Damage per Occurrence
- d. OR \$1,000,000 Combined Single Limit

(2). WORKER'S COMPENSATION – STATUTORY

(3). EMPLOYER'S LIABILITY

- a. \$500,000 Disease – each employee
- b. \$500,000 Disease – policy limit
- c. \$500,000 Each Accident

(4). COMMERCIAL GENERAL LIABILITY

Policy shall include coverage for bodily injury and property damage arising out of an occurrence and shall include:

Premises and Operations
Products/Completed Operations
Personal and Advertising Injury
Contractual Liability
X, C, U Coverage
Per Project Aggregate Endorsement
Additional Insureds – OWNER & ENGINEER

- a. \$2,000,000 General Aggregate
- b. \$1,000,000 Products/Completed Operations Aggregate
- c. \$1,000,000 Personal & Advertising Injury
- d. \$1,000,000 Each Occurrence

(5). PRODUCTS AND COMPLETED OPERATIONS

Products and completed operations coverage to be maintained for (1) year after final payment.

(6). OWNER'S PROTECTIVE INSURANCE

Should the Contractor and/or Subcontractor be unable to add the Owner, Owner's Representative, Engineer and Engineer's Consultants as an Additional Insured, then, at Owner's option, an Owner's Representative and Engineer's Protective Liability policy must be obtained by the Contractor and/or Subcontractor. This policy should show the Owner, Owner's Representative, Engineer and Engineer's Consultants as Named Insureds and have a Limit of Liability not less than \$1,000,000. This policy should also be maintained for the duration of the project.

(7). RAILROAD PROTECTIVE INSURANCE (RRP)

Will be required by Special Provisions if needed.

(8). BUILDER'S RISK

Builder's Risk Insurance is not provided by the OWNER. The CONTRACTOR is responsible for any loss that would be insured by such coverage. On CONTRACTS for construction of buildings, bridges, or other structures, "All Risk" Builder's Risk coverage including theft are required. Such coverage shall be written based on the completed value and will include the CONTRACTOR, OWNER, ENGINEER, SUBCONTRACTORS and suppliers as named in insureds as their interests may appear.

(9). ADDITIONAL NAMED INSURED

The Owner, Owner's Representative, Engineer and Engineer's Consultants shall be named as "Additional Insured" on the General Contract and/or Subcontractor commercial liability policy as well as the umbrella policy.

The insurance required shall include an endorsement naming the following listed entities, their agents, consultants and employees as Additional Named Insureds on all policies providing required coverages:

- a. Metro East Sanitary District
- b. Juneau Associates, Inc., P.C.

The Additional Names Insured endorsement shall state that the coverage afforded the Additional Names Insured shall be primary insurance for the Additional Named Insureds with respect to claims arising out of operations performed by or on behalf of the Contractor and shall state that: 1) if the Additional Names Insureds have other insurance which is applicable to the

loss, such other insurance shall be on an excess or contingent basis, 2) the amount of the company's liability under the insurance policy shall not be reduced by the existence of such other insurance, and 3) the coverage shall not extend to the liability of the Engineer, the Engineer's Consultants, and the agents and employees of any of them arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications, or (2) the giving of or the failure to give directions or instructions by the Engineer, the Engineer's Consultants, and agents or employees of any of them provided such giving or failure to give is the primary cause of the occurrence, injury or damage.

9. Page 00 72 00 - 24, Article 5.05 *Owner's Liability Insurance*

Delete Article 5.05 entirely.

10. Page 00 72 00 - 24, Article 5.06 *Property Insurance*

Revise Article title to read as follows:

Contractor's Property Insurance

11. Page 00 72 00 - 24, Article 5.06 Contractor's Property Insurance, Paragraph A.

Replace the word "Owner" in the second line with the word "Contractor".

12. Page 00 72 00 -16, Article 5.06 *Contractor's Property Insurance*, Paragraph C.

Delete the words "and will contain waiver provisions in accordance with Paragraph 5.07" from the 5th and 6th line.

13. Pages 00 72 00 - 25, Article 5.06 *Contractor's Property Insurance*, Paragraph D.

Revise Paragraph D to read as follows:

- 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. The risk of loss will be borne by Contractor, Subcontractors, or others suffering any such loss.

14. Page 00 72 00 - 26, Article 5.06 *Contractor's Property Insurance*, Paragraph E.

Delete Paragraph E entirely.

15. Page 00 72 00 - 26, Article 5.07 *Waiver of Rights*, Paragraph A

- A. Delete the words " Owner and" from the first line.

- B. Revise 8th and 9th line to read as follows:

. . . thereunder. Contractor waives all rights against Owner and their respective officers, directors, . . .

- C. Add the following sentence to the end of Paragraph A

Nothing contained herein shall obligate one party to indemnify another party, person, or entity's own negligence.

16. Page 00 72 00 - 26, Article 5.07 *Waiver of Rights*

A. Delete Paragraphs B, B.1, B.2, and C entirely.

17. Page 00 72 00 - 27, Article 5.08 *Receipt and Application of Insurance Proceeds*, Paragraph B.

Delete the following words from the last sentence:

. . . and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

18. Page 00 72 00 - 33, Article 6.08 *Permits*, Paragraph A

Add the following sentence:

The Owner will pay for construction permits required for project based on the actual cost of the permit required to be issued.

19. Page 00 72 00 - 34, Article 6.10 *Taxes*

Municipal and Government funded projects are tax exempt. A tax exempt number will be furnished by Metro East Sanitary District.

20. Page 00 72 00 - 42, Article 8.01 *Communications to Contractor*, Paragraph A

Change the word "shall" in the second line to the word "may".

21. Page 00 72 00 - 42, Article 8.02 *Replacement of Engineer*

Delete Paragraph A and insert the following:

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer, whose status under the Contract Documents shall be that of the former Engineer.

22. Page 00 72 00 - 42, Article 8.07 *Change Orders*

Delete Paragraph A and insert the following:

A. Owner may execute Change Orders as indicated in Paragraph 10.03.

23. Page 00 72 00 - 44, Article 9.03 *Project Representative*

Delete 2nd sentence of Paragraph A entirely.

24. Page 00 72 00 - 51, Article 11.02 *Allowances*, Paragraph D

Revise 2nd line to read as follows:

...to reflect actual amount due Contractor on account of Work covered by allowances, **and the credit due to Owner for trade discounts, rebates, refunds, and returns,** and the...

25. Page 00 72 00 - 54, Article 13.01 *Notice of Defects*

Add the following sentence to the end of Paragraph A

Contractor and its subcontractors or suppliers shall give prompt notice to Owner or Engineer of all defective work.

26. Page 00 72 00 - 59, Article 14.02 *Progress Payments*, Sub-paragraph A *Applications for Payment*

Add the following Sub-paragraph 3.1, Retainage

3.1. Retainage

- a. From each monthly progress payment, the Owner shall withhold 10% of the amount approved for payment by the Engineer and the Owner's Project Manager.
- b. When the Contractor's work is 50% complete measured by dollar volume of labor and material, the Owner will cease making any further withholding provided that, in the Owner's sole discretion, the Contractor has then made satisfactory progress toward completion and there is then no other specific cause for additional withholding.
- c. The Owner may reinstate withholding (but not exceed 10% of the Contractor's Contract Sum) if it, in the Owner's sole discretion, determines that the Contractor is not making satisfactory progress toward completion or determines there is any other specific cause for additional withholding.
- d. When the Contractor has substantially completed his work, as certified by the Engineer and accepted by the Owner, the Owner will thereafter continue to retain only so much of the withheld sums as it, in its sole discretion, deems necessary to assure completion of 100% of the Contractor's work.

27. Page 00 72 00 - 60, Article 14.02 *Progress Payments*, Sub-article C. *Payment Becomes Due*, paragraph 1, first line,

Change ten days to thirty (30) days.

28. Page 00 72 00 - 62, Article 14.06, *Final Inspection*

Add the following to the end of Paragraph A:

. . . to the satisfaction of Owner and Engineer.

29. Page 00 72 00 - 63, Article 14.07 *Final Payment, Sub-article A. Application for Payment*, paragraph 1

Add the words "Owner and" before the word "Engineer" in the first line.

30. Page 00 72 00 - 65, Article 15.02 *Owner May Terminate for Cause*

Paragraph A.1

Delete the word "persistent" in the first line of the first sentence.

31. Page 00 72 00 - 66, Article 15.03 *Owner May Terminate for Convenience*

Delete Paragraph A.4 entirely.

32. Page 00 72 00 - 68, Article 17 – *MISCELLANEOUS*

Add the following paragraph 17.07 LIQUIDATED DAMAGES

17.07 LIQUIDATED DAMAGES

- A. It is understood and agreed that TIME is of the essence on this contract, and that a failure on the part of the Contractor to complete the work under this contract within the time specified will result in loss and damage to the Owner; and that on account of the peculiar nature of such loss or damage, it is difficult, if not impossible, to accurately ascertain and definitely determine the amount thereof.
- B. It is, therefore, covenanted and agreed that in case the Contractor shall or neglect to complete the work herein specified on or before the date herein fixed for completion, together with any extensions of time which may be granted under Article 12, the said Contractor shall and will pay to the Owner for each and every calendar day the Contractor shall be in default in the time of completion of this contract the sum of Seven Hundred Fifty Dollars (\$750.00) per day.
- C. The above sum is hereby agreed upon, fixed and determined by the parties hereto as the liquidated damages which the Owner will suffer by reason of such defaults, and not by way of a penalty.
- D. In case the Contractor does not complete the work covered by this contract on or before the time specified herein for the completion of the said work, together with any extensions of time which may be granted under Article 12, the Engineer shall determine the number of days the Contractor is in default, and the decision of the Engineer shall be final and binding upon both parties hereto. It is further agreed that if the Owner shall accept any work or make any payments under this contract after any such default, such acceptance, payment or payments shall not in any respect constitute a waiver or modification of any of the provisions hereof, and particularly the provisions in regard to LIQUIDATED DAMAGES for delays.

END OF SECTION 00 73 00

DIVISION 01

GENERAL REQUIREMENTS

SECTION 01 11 00
SUMMARY OF WORK

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS/REQUIREMENTS INCLUDED

The work to be performed under this contract comprises the general construction of the following:

The proposed Sewer Main Lining work consists of cleaning and video inspection and cured-in-place lining of sanitary sewer, and other related work. Work will also include manhole reconstruction and lining.

1.02 CONTRACTS

- A. Construct the work under a unit-price contract.

1.03 CONTRACTOR'S USE OF PREMISES

- A. Coordinate work with Metro East Sanitary District and local municipalities.
- B. Dispose of debris from the project.
- C. Assume full responsibility for the protection and safekeeping of products under this contract stored on the site.
- D. Move any stored products, under Contractor's control, which interfere with operations of the District.
- E. Assume full responsibility for traffic control.

1.04 VIDEO INSPECTIONS

- A. Sections of piping in the project had video inspections completed. The inspection reports are included in these specifications. Bidders may request copies of the video reports from the Engineer at no additional cost.

PART 2 – PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 11 00

SECTION 01 22 13
UNIT PRICE MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 GENERAL

- A. The following explanation of the bid form items is made for the information and guidance of bidders. Omission in this description of reference to an item shall not, however, alter the intent of the bid form or relieve the Contractor of the necessity of furnishing such items as a part of the contract.
- B. The quantities set forth in the bid form are approximate and are given to establish a uniform basis for the comparison of bids. The Owner reserves the right to increase or decrease the amount of any class or portion of the work during the process of construction. There will be no adjustment in price as long as the completed units are within 20% (lesser or greater) than the awarded quantity.
- C. Payment will be made on the basis of work actually performed at the unit and lump sum prices in this bid form as accepted. Where contract work requires the removal/replacement of surface features such as fences, landscaping, etc., this work will not be paid for separately, but shall be considered incidental to the contract item requiring said removal/replacement.

Contract Item 1

HEAVY SEWER CLEANING / CCTV INSPECTION, 21"-30" GRAVITY SEWER

Contract Item 2

HEAVY SEWER CLEANING / CCTV INSPECTION, 42"-48" GRAVITY SEWER

Contract Item 3

HEAVY SEWER CLEANING / CCTV INSPECTION, 54"-66" GRAVITY SEWERS

Payment for SEWER CLEANING AND TV VIDEO INSPECTION shall be at the contract unit price per lineal foot. The price shall include furnishing all materials, labor and equipment required to clean and provide TV video inspection of sanitary sewer to determine the condition of the sewer, in accordance with Sections 33 01 30.14 and 33 01 30.15.

Contract Item 4

FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
21" GRAVITY SEWER PIPE LINING

Contract Item 5

FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
24" GRAVITY SEWER PIPE LINING

Contract Item 6

FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
27" GRAVITY SEWER PIPE LINING

Contract Item 7

FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
30" GRAVITY SEWER PIPE LINING

Contract Item 8
FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
42" GRAVITY SEWER PIPE LINING

Contract Item 9
FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
45" GRAVITY SEWER PIPE LINING

Contract Item 10
FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
48" GRAVITY SEWER PIPE LINING

Contract Item 11
FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
54" GRAVITY SEWER PIPE LINING

Contract Item 12
FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
60" GRAVITY SEWER PIPE LINING

Contract Item 13
FURNISH AND INSTALL CURED IN PLACE PIPE (CIPP) LINING
66" GRAVITY SEWER PIPE LINING

Payment for FURNISH & INSTALL CURED-IN-PLACE PIPE (CIPP) LINING shall be at the contract unit price per lineal foot. The price shall include any necessary by-pass pumping, pre-cleaning, the installation of a general-purpose thermal setting resin impregnated flexible felt tube and all labor, equipment and materials necessary to complete this item of work. A post-installation video shall also be provided and included in unit price.

Contract Item 14
MANHOLE 19 MODIFICATIONS

Payment for this contract item shall be at the contract lump sum price. Contractor price shall include all labor, materials, and equipment for removal of the existing rubber liner in this manhole. Rubber liner shall be removed to allow for surface preparation for construction of the lining systems for the manhole and pipes.

Contract Item 15
SLIP LINED MANHOLE MODIFICATIONS

Payment per SLIP LINED MANHOLE MODIFICATIONS shall be at the unit contract price per each. The sewer line from MH-18 to MH-11 was lined with HDPE. The liner was installed through the manholes with a small opening cut in the top of HDPE and concrete cradle poured around the HDPE pipe through the manhole. Under this contract item, Contractor shall cut the existing concrete/HDPE pipe for a width of 15" – 18" and a length of 24" – 30" to provide proper access to sewer pipe.

Contract Item 16
RAISED MANHOLE MODIFICATIONS

Payment for this contract item shall be at the contract unit price per vertical foot. Several of the manholes have had the top elevation raised by placement of precast cone section over the existing flat slab lid. This flat slab lid has an approximately 24" diameter opening. To provide access for the pipe lining, contractor shall excavate at the manhole to remove the cone section in a manner to preserve it for reuse, remove

and dispose of the flat slab lid (which is cast monolithically with the walls), modify the original manhole to accept the cone structure, place the cone structure, and provide the necessary grade rings to provide a manhole top at its current elevation. Should existing cone be found to be unacceptable, contractor shall provide new top and be reimbursed per the General Conditions. All grading, seeding, and fertilizing of the disturbed area shall be included in the unit price.

Contract Item 17

SANITARY MANHOLE LINING (CIRCULAR SECTIONS)

Contract Item 18

SANITARY MANHOLE LINING (RECTANGULAR SECTIONS)

Payment for SANITARY MANHOLE LINING shall be at the contract unit price per vertical foot for circular manhole sections (4' dia.), and per square foot for all rectangular sections. The price shall include all cleaning and pre-installation work necessary for the installation of the liner system. The liner system shall be capable of preventing infiltration. The unit price shall include the application of a material designed to stop the existing infiltration to allow the liner installation. Should the liner be intended to cover only the vertical portion of the manhole, the contractor shall also provide any necessary repairs to the floor of the manhole.

Any existing manhole steps shall be removed with the manhole wall being properly patched prior construction of the liner.

The manhole lining work shall be coordinated with the Cured-in-Place Pipe (CIPP) lining to provide a watertight connection where the pipe enters the manhole.

Contract Item 19

MANHOLE FRAME & LID

Payment for this contract item shall be at the contract unit price per each. Contractor shall remove and dispose of the existing frame and lid and install a new frame and lid (Neenah R-1916-F or approved equal). Connection of the new frame and lid to the existing manhole shall include a water tight seal using butyl rubber flexible joint sealant.

Contract Item 20

CONCRETE ENCASEMENT OF JOINTS ON 66"/60" SEWER

Payment for this contract item shall be at the contract unit price per each. On the 66" and 60" sewer between MH 99 and MH 100, Contractor shall excavate the existing pipe and construct a concrete encasement on each pipe joint. Pipe joints area estimated at 6" spacing. Contractors shall tunnel under the existing pipe for complete encasement. Joint shall be wrapped in 12" wide rubber membrane and encased in concrete (minimum 6" thick and 18" wide).

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 22 13

SECTION 01 33 23
SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Submit Shop Drawings, Product Data and Samples required by Contract Documents.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract: Definitions and Additional Responsibilities of Parties.
- B. Designate in the construction schedule or in a separate coordinated schedule, the dates for submission and the dates that reviewed Shop Drawings, Product Data and Samples will be needed.

1.03 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner.

Details shall be identified by reference to sheet and detail, schedule or room numbers shown on Contract Drawings.
- B. Minimum sheet size: 8-½ in. x 11 in. Larger sheets shall be in multiples of 11 in. x 8-1/2 in.

1.04 PRODUCT DATA

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

1.05 SAMPLES

Office samples shall be of sufficient size and quantity to clearly illustrate:

- 1. Functional characteristics of the product, with integrally related parts and attachment devices.
- 2. Full range of color, texture and pattern.

1.06 CONTRACTOR'S RESPONSIBILITIES

- A. Review Shop Drawings, Product Data and Samples prior to submission.
- B. Determine and verify:

1. Field measurements.
 2. Field construction criteria.
 3. Catalog numbers and similar data.
 4. Conformance with specification.
- C. Coordinate each submittal with requirements of the work and of the Contract Documents.
- D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the Contract Documents.
- E. Begin no fabrication or work which requires submittals until return of submittals with Engineer approval.

1.07 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the work or in the work of any other Contractor.
- B. Number of submittals required:
1. Shop Drawings: Submit one reproducible transparency and seven opaque reproductions. Shop drawings shall be rolled, not folded.
 2. Product Data: Submit seven copies, five of which will be retained by the Engineer.
 3. Samples: Submit the number stated in each specification section.
- C. Submittals shall contain:
1. The date of submission and the dates of any previous submissions.
 2. The project title and number.
 3. Contract identification.
 4. The names of:
 - a. Contractor.
 - b. Supplier.
 - c. Manufacturer.
 5. Identification of the product, with the specification section number and equipment tag number where applicable.
 6. Field dimensions, clearly identified as such.
 7. Relation to adjacent or critical features of the work or materials.
 8. One copy of applicable standards, such as ASTM, ANSI, AWWA or Federal Specification numbers.
 9. Identification of deviations from Contract Documents.
 10. Identification of revisions on resubmittals.
 11. An 8 in. x 3 in. blank space for Contractor and Engineer stamps.
 12. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the work and of Contract Documents. Wording of Contractor's stamp will be furnished by Engineer.

1.08 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by the Engineer and resubmit until approved.
- B. Shop Drawings and Product Data:
 - 1. Revise initial drawings or data and resubmit as specified for the initial submittal.
 - 2. Indicate any changes which have been made other than those requested by the Engineer.
- C. Samples: Submit new samples as required for initial submittal.

1.09 DISTRIBUTION

- A. Distribute reproductions of shop drawings and copies of product data which carry the Engineer's stamp of approval to:
 - 1. Job site file.
 - 2. Record Documents file.
 - 3. Other affected Contractors.
 - 4. Subcontractors.
 - 5. Supplier or Fabricator.
- B. Distribute samples which carry the Engineer's stamp of approval as directed by the Engineer.

1.10 ENGINEER'S DUTIES

- A. Review submittals with reasonable promptness and in accord with schedule.
- B. Affix stamp and initials or signature and indicate requirements for resubmittal or approval of submittal.
- C. Return submittals to Contractor for distribution, or for resubmission.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01 33 23

DIVISION 33

UTILITIES

SECTION 33 01 30.14
SEWER CLEANING AND CCTV INSPECTION

PART 1 – GENERAL

1.01 SUMMARY

- A. The intent of this work is to remove foreign material(s) from mainline sewers lines and complete a closed circuit television (CCTV) inspection of the lines and facilities included in this project.

1.02 SCOPE OF WORK

- A. Sewer Cleaning – The intent of sewer line cleaning is to remove foreign materials from the mainline sewers. This cleaning is also intended to restore the sewer to a minimum of ninety-five percent (95%) of its original carrying capacity.
- B. CCTV Inspection – After cleaning and removal of debris, the pipe sections between manholes or other structures shall be inspected by means of CCTV equipment.
- C. Schedule of Work Hours – The Contractor shall work during the hours of 7:00 AM to 7:00 PM Monday through Friday. If there is a need for after-hours work or weekend work, prior consent shall be obtained from the Engineer.
- D. Traffic Control – The Contractor shall be solely responsible for all signage, flagging, cones, personnel and any other item or personnel required for traffic control.
- E. Water for Jetting – Coordinate with Illinois American Water Company.

1.03 RELATED SECTIONS

- A. Section 33 01 30.15 Sewer Flow Control
- B. Section 33 01 30.72 Cured-in-Place Pipe (CIPP)

1.04 REFERENCES

- A. National Association of Sewer Service Companies (NASSCO), *Jetter Code of Practice*.
- B. National Association of Sewer Service Companies (NASSCO) prepared, *Pipe Line Assessment and Certification Program (PACP), TV inspection form and sewer condition codes*.

1.05 SUBMITTALS

- A. Safety Plan –The Contractor shall provide a safety plan and identify designated safety supervisory personnel to the Engineer. The plan shall include confined space entry

provisions and training, listing of personal protective equipment, and a traffic control plan (if applicable).

- B CCTV Technician NASSCO PACP Certification – The Contractor shall provide certification documentation for all technicians on the project.

PART 2 - PRODUCTS

2.01 SEWER CLEANING EQUIPMENT

- A. Cleaning Equipment – Line cleaning for this work shall be accomplished using equipment suitable to the task.
- B. High Velocity Cleaning Equipment – Where high velocity equipment is used, the equipment shall include an assortment of nozzles, milling or other heads, root saws, and other ancillary equipment necessary to accomplish the cleaning portion of the work.
- C. Mechanical Cleaning Equipment – Mechanical means for line cleaning may be used with the prior consent of the Engineer.

2.02 CCTV EQUIPMENT

- A. Type of Equipment - The CCTV cameras used for inspection shall be specifically designed and constructed for such inspection. The cameras shall be operative in one hundred percent (100%) humidity conditions and capable of withstanding exposure to concentrations of pollutants typically found in municipal sewage.
- B. Camera View - The view seen by the camera shall be transmitted to a monitor of greater than or equal to (\geq) fifteen inches (15") diagonal dimension.
- C. Camera Movement - Camera systems shall be able to navigate minor objects, roots, and debris. The system used to move the camera through the pipe shall not obstruct the camera's view or interfere with proper documentation of the sewer conditions. The camera shall be capable of traversing the sewer line for a distance of at least one thousand feet (1,000'). The camera shall have sufficient clearance to allow for the assembly to pass through sewer lines of nominal diameter six inches (6") and larger.
- D. Camera Accessories - The Contractor shall provide ancillary wheels, crawlers, tracks, or other adjustment plates, skids, arms, axles, etc. as may be necessary or dictated by flow conditions, pipe diameter, etc. These accessories shall be utilized to stabilize the camera in the pipeline, provide adequate propulsion in the pipeline for the camera, and/or to raise the camera above flow to provide a quality picture during CCTV inspection.
- E. Camera Features – Cameras shall record all images in color. Cameras shall have pan and tilt capabilities, and shall have a minimum of three hundred sixty degree by one hundred eighty degree ($360^\circ \times 180^\circ$) rotation capability. Illumination sensitivity shall be three (3) lux or less and provide a minimum of four hundred sixty (460) lines of resolution. The focal distance shall be adjustable through range from one inch (1") to infinity. There shall be no geometric distortion of the image.

- F. Supplemental Lighting and Lighting Adjustments - Cameras shall also be provided with ancillary or supplemental lighting packs or units to provide sufficient light and illumination in larger diameter conduits or conduits where additional lighting may be necessary (e.g. HDPE pipe). Lighting intensity shall be adjustable to minimize glare. Lighting and picture quality shall be adjustable to provide a clear picture of the entire periphery of the pipeline for all conditions encountered.
- G. Measurement of Distance - The distances traveled by the camera shall be measurable to one tenth of a foot (.1') by an onboard measuring device and shall provide video display readout of said distances in units of one tenth of a foot (.1'). The cable footage counter shall be accurate to plus or minus (+/-) one foot (1') per one hundred feet (100').

PART 3 - EXECUTION

3.01 SEWER CLEANING

- A. Protection of Public and Private Property – During sewer cleaning operations, precautions shall be taken to prevent damage to public or private property. Any cleanup and associated costs caused by the Contractor's actions shall be the Contractor's responsibility to remedy.
- B. Water Supply for Jetting
 - 1. When water from fire hydrants is necessary, apply to Owner for permission to use potable water source.

Contractors are to contact Illinois American Water Company (IAWCo) for construction water and make arrangements to obtain and pay for construction water required for this project.

Contact: Ron Beard
Illinois American Water Company
2000 West 24th Street
Granite City, Illinois 62040
Phone: 618-876-0011
Fax: 618-876-8165
 - 2. Provide temporary piping, valves, certified reduced pressure backflow preventors, equipment, and other items for handling potable water and wastewater.
 - 3. Do not utilize water source until it has been approved for use by Owner.
- C. Pipe Cleaning – High velocity pipe cleaning shall begin at the downstream manhole of a pipe segment and proceed upstream to the next inline manhole. The jetter hose and affixed tool (nozzle, root saw, etc.), shall proceed against the flow (i.e. upstream) to the next structure in line (i.e. the upstream manhole) if possible. The Contractor shall dewater and remove all sludge, dirt, sand, rocks, grease, and other solid or semisolid material and debris resulting from the cleaning operations from the downstream manhole of the sewer segment being cleaned. Passing material from

sewer segment to sewer segment (without the debris being ultimately removed from the pipeline) shall not be permitted.

- D. When debris removal is necessary, the Contractor shall coordinate requirements with Owner's waste management liaison. All materials shall be disposed of at the Granite City Waste Water Treatment Plant. Contractor shall coordinate the disposal of the material from the interceptor sewers with the Treatment Plant.

Do not discharge sewage or solids removed from downstream manholes onto streets, or into ditches, catch basins or storm drains.

- E. Cleaning Pass Defined - For the purposes of this work, a "cleaning pass" in a sewer line shall be defined as one of the following:

1. One complete, unimpeded "round trip" from the downstream manhole to the upstream manhole and return to the downstream point of origin by the jet hose and cleaning tool,
2. A movement by the jet hose and attached tool from the downstream point of origin (manhole or structure) of jetting to a pipe obstruction or blockage that will not allow the jetter hose and attached tool to complete a "round trip" per paragraph (1) above,

- F. Light and Heavy Cleaning Defined - For the purposes of this contract light cleaning and heavy cleaning shall be defined as follows:

1. **Light cleaning** shall be the movement of the sewer jet hose and affixed nozzle or tool upstream for two cleaning passes **OR** less. During these two or fewer cleaning passes, ninety-five percent (95%) or more of the sewer capacity shall be restored. If this level of capacity cannot be restored after two cleaning passes, then the line segment shall be deemed to require "heavy cleaning" and the Contractor will continue until the line is restored to the desired capacity.
2. **Heavy cleaning** shall be the movement of a sewer jet hose and affixed nozzle or tool for **more than two cleaning passes** to restore the sewer to a minimum of ninety-five percent (95%) capacity.
3. The Contractor shall notify the Engineer when heavy cleaning is required. All printed line segment reports shall contain the words "Heavy Cleaning XXX feet" in a prominent place on the report to denote that the particular line segment(s) required heavy cleaning.
4. Special Circumstances – There may be certain circumstances where the Contractor may discover that: 1) a line segment is completely blocked and the hose and cleaning tool cannot proceed any farther, or 2) a line segment, or part thereof, has deteriorated to a point where further cleaning, removal of root balls, mineral deposits, protruding laterals, or other blockages and debris, may cause damage to the pipe. Should the Contractor identify said "special circumstances", the Contractor shall safely clean and video inspect as much of the pipeline as possible and then submit all video inspections and reports to the Engineer. The Contractor will be paid for the portion of the sewer line that has been cleaned and inspected to the point of termination.

- G. Removal of Roots – Roots shall be removed from the sewer line when:
1. The CCTV camera cannot pass by the root mass and continue down the pipeline for video inspection.
 2. Roots shall only be removed by mechanical devices proceeding from the downstream manhole or access point to the root mass. No “reverse cutting” from the upstream manhole or access point will be permitted.
 3. All lines that require root cutting will be inspected after root cutting is completed. Televising may be stopped and root cutting executed while the video recording is paused.
 4. If it is determined that roots should be removed by the methods referenced above, said root mass will be removed under the pricing terms of “removal of roots”.
- H. Removal of Mineral or Attached Deposits – Mineral or other attached deposits (MOAD) shall be removed when:
1. If the CCTV camera cannot pass by the MOAD and continue down the pipeline during video inspection.
 2. MOAD shall only be removed by mechanical devices proceeding from the downstream manhole or access point to the root mass. No “reaming” from the upstream manhole or access point will be permitted.
 3. All lines that require MOAD removal will be inspected after reaming is completed. Televising may be stopped and deposit removal executed while the video recording is paused.
 4. If it is determined that a MOAD should be removed by the mechanical devices described above, said deposit will be removed under the pricing terms of “removal of mineral or attached deposits”.
 5. Removal of hardened deposits such as concrete, mortar, or other cementitious type material found attached in the pipeline is beyond the scope of this project. Such material shall be documented and coded during the CCTV inspection as “Other Deposits” using the PACP modifier “DAZ”.
- I. Removal of Protruding Taps – Protruding service taps shall be removed from the sewer when:
1. The CCTV camera cannot pass by the protruding tap and continue down the pipeline during video inspection.
 2. Protruding taps will be only be removed by the mechanical device proceeding from the downstream manhole or access point to the tap. No “reverse cutting” from the upstream manhole or access point will be permitted.
 3. It should be noted that removing protruding taps constructed of polyvinyl chloride (PVC) may result in cracking or other damage to the lateral pipe upstream of the mainline connection. As such, PVC protruding taps are not required to be removed.

4. All lines that require tap cutting will be inspected after tap cutting is completed. Televising may be stopped and tap cutting executed while the video recording is paused.
5. If it is determined that a protruding tap should be removed by mechanical devices referenced above, said tap will be removed under the pricing terms of “removal of protruding taps”.

3.02 CCTV INSPECTION

- A. Standards – Video inspection shall be completed per the Pipeline Assessment Certification Program (PACP®) as promulgated by the National Association of Sewer Service Companies (NASSCO).
- B. Certified Technicians – Video inspection shall be completed by technician(s) who have been certified by NASSCO as PACP compliant and trained. The technician(s)’ PACP certification number(s) shall be included in all line segment reports as furnished as part of this project.
- C. Certified Software – All video inspection and subsequent reports shall be compiled using the latest version of a PACP compliant software package as certified by NASSCO.
- D. Video of Line Segments – Each line segment shall be video inspected one at a time. Each segment will have its own video file (with distinct file name) and corresponding line segment report. This shall apply to lines videoed from the upstream manhole moving to the downstream end and to lines being accessed from the downstream manhole or structure during “reverse setups”.
- E. Discovery of Undocumented Structures – When intermediate and undocumented manholes are found, the Contractor shall conclude the video inspection upon reaching the undocumented structure. A video file and printed line segment report shall be generated per usual procedures for this line segment. *It should be noted that the video text overlay that was created at the start of this survey will now be incorrect. This information and display cannot be changed within the video file once a line segment report has begun. The electronic file’s name shall be changed to reflect the proper and accurate line segment information.* The report will indicate the location of the intermediate structure (by its footage upstream/downstream from the point of origin of the survey), its type and corresponding PACP code. A new line segment report will then begin at the intermediate and previously undocumented structure (now named, labeled, and documented) and proceed to the next structure indicated on the project maps, or to the next intermediate and undocumented structure, if any.
- F. Locating and Exposing Manholes and Structures – The Engineer or the Owner shall locate and expose all manholes or other structures indicated on the project maps prior to the beginning of the project.
- G. Corresponding Data – Each video clip or file and each digital photograph or file shall correspond to inspection data in the database, and each set of inspection data listed in the database shall be properly linked to the appropriate video file or photo(s).

H. Video Inspection Parameters – The following information shall constitute the desired parameters for video inspection for this project:

1. Video Format – The Contractor shall make a continuous color digital recording in Motion Picture Experts Group (MPEG) 1 format.
2. Minimum Resolution – Video files shall have a minimum resolution of six hundred forty by four hundred eighty (640 x 480) pixels and an interlaced frame rate at a minimum of twenty-nine point nine (29.9) frames per second.
3. Video Text Overlay – Each pipe segment video shall begin with a video text overlay (displayed for a minimum of five (5) seconds) and completed in accordance with PACP's CCTV inspection form headers and instructions as follows:
 - a. Line 1: Surveyed By
 - b. Line 2: City
 - c. Line 3: Street
 - d. Line 4: Weather
 - e. Line 5: Direction of Survey
 - f. Line 6: Use of sewer
 - g. Line 7: Pipe Material
 - h. Line 8: Pipe Diameter/Height
 - i. Line 9: Start Manhole Number
 - j. Line 10: End Manhole Number
 - k. Line 11: Inspection Time/Date
4. Text Shown During Video – During the CCTV inspection, the video text overlay shall show the following text at all times:
 - a. Start Manhole number
 - b. End manhole number
5. Evaluation of Defects and Observations – During the CCTV inspection, the camera shall stop at all defects, observations, and connections to ensure a clear view of the pipe condition and shall rotate the camera head to evaluate the defect, observation, or connection.
6. Text Overlay of Observation – All defects and observations shall include a video text overlay of the appropriate PACP code/description.
7. Naming of Video Files – The naming of the video file shall consist of the following: "UPSTREAM MANHOLE - DOWNSTREAM MANHOLE" as shown in the following example (plus the appropriate file extension). The naming of all video files shall be consistent throughout the project:

Example: 123-124.mpg

I. Additional Inspection Procedures – Other inspection procedures shall include:

1. Pan of Manholes – All manholes shall be panned. This video footage shall occur at the beginning of each pipe segment survey inspection from the bottom of the manhole panning up to the manhole shaft. In the instance when the manhole is the terminating manhole of a survey, then the pan shall occur at the end of the pipe segment survey.

2. Reverse Setups – Obstructions may be encountered during the course of the CCTV inspection that prevents the travel of the camera. In instances when obstructions are not passable, the Contractor shall withdraw the equipment and begin a CCTV inspection from the opposite end of the sewer line, i.e. a reverse setup. If the video inspection is performed from this reverse setup vantage point, then a new video file shall be created and the name and corresponding header shall contain the word “REVERSE” in the upstream manhole name/label. This video file will be in numerical and chronological order immediately following the original video file. If the line only has one adjoining manhole and a reverse setup is not possible, the televising of the line shall be considered complete, the video inspection shall be abandoned, and the Contractor shall be paid for the footage successfully videoed. If it is determined that a reverse setup is necessary, said setup will be paid for under the pay item “reverse setup”.
3. Excessive Depth of Flow or Sags– If, in the course of the video line inspection, pipe flow is in excess of the acceptable PACP standards, the Contractor shall take one of the following actions before completing the video inspection:
 - a. Perform the video inspection during times of low flow conditions. If these conditions only exist outside the stated work periods of this project, the Contractor shall seek the Engineer’s approval before working during these times, OR
 - b. Work the cleaning nozzle or tool in tandem with the camera. In this instance, the nozzle will “wick” or draw down the water level in the pipe or sag to allow the camera to pass and make a proper inspection of the footage involved in the sag. Care should be taken by the camera operator and jetter operator to maintain a proper interval between the cleaning tool and the camera. This proper interval will prevent a “back splash” of water or debris on the trailing camera that might otherwise degrade the quality of the video.

3.03 QUALITY CONTROL

- A. Review by the Contractor - The video recordings, photographs, and data shall be reviewed by the Contractor for focus, lighting, clarity of view, and technical quality.
- B. Blocked or Distorted Video - Videos recorded while a camera has flipped over in the process of traveling or the viewing of laterals, obstructions, or defects are blocked by cables, skids, or other equipment will not be accepted. Shape, focus, proper lighting, and clear, distortion-free viewing during the camera operations shall be maintained. Failure to maintain these conditions will result in the rejection of the video by the Engineer.

PART 4 – DELIVERABLES AND PAYMENTS

4.01 MEASUREMENT

- A. Distance Measurement - Measurement of the actual number of feet cleaned and televised shall be made from the center of the manhole to the center of the manhole.

- B. Other Payment Units - Any ancillary items shall be paid at a unit price basis as specified by the contract's payment schedule. Root cutting, heavy cleaning, and mineral deposits will be paid on a per foot basis from the downstream manhole for the entire length of the line segment.
1. Removal of Roots – will be paid on a per foot basis for the footage of the entire line segment (upstream manhole to downstream manhole);
 2. Removal of Mineral or Attached Deposits – will be paid per foot basis for the footage of the entire line segment (upstream manhole to downstream manhole);
 3. Removal of Protruding Taps – will be paid per each;
 4. Reverse Setups – will be paid per each setup; and
 5. Bypass Pumping – will be paid per each instance.

4.02 ACCEPTANCE

- A. Defective Work – Within sixty (60) days of the final delivery of written and video reports, the Engineer will notify the Contractor of any defective work. Defective work (if any) will be corrected by the Contractor within sixty (60) days of receipt of this written notification. These corrections will be made to the satisfaction of the Owner and Engineer.

4.03 DELIVERABLES

- A. Video Files - As part of the final submittal on this project, the Contractor shall submit all video recordings and database information (in approved PACP format), on DVDs or external hard drives (as dictated by the size and quantity of the files submitted). If a hard drive is submitted, the submittal shall include the power cord and USB connection cable. The external hard drive shall become the property of the Owner unless otherwise indicated or specified.
- B. Written Reports – As part of the final submittal on this project, the Contractor shall provide two copies of a bound written report in the approved PACP format. This report shall include a cover page with the name of the project, scope of the project, and date of submission; an index page with listing of line segment reports; a complete set of line segment reports and a page or pages of holders containing the DVDs of this project's data (if applicable).
- C. Software – The Contractor shall provide the Owner a copy of the “read only” version of its inspection software (and appropriate license(s), if any).
- D. Incidental Costs – All reports, DVDs, hard drives, printing, copying, software, and other costs associated with developing and rendering these deliverables to the Engineer or Owner shall be considered incidental to the project.

END OF SECTION 33 01 30.14

SECTION 33 01 30.15
SEWER FLOW CONTROL

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes control of sanitary sewer flow during internal television (TV) inspection, sewer cleaning operations, manhole rehabilitation, and sewer pipe lining.
 - 1. Limited sewage flow is acceptable for TV inspection.
 - 2. Complete stoppage or bypassing of flow is required during sewer line and manhole rehabilitation work.
- B. Related Sections: Refer to the following sections for related work.
 - 1. Section 33 01 30.14 Sewer Cleaning and CCTV Inspection
 - 2. Section 33 01 30.72 Cured-in-Place Pipe (CIPP) Lining
 - 4. Section 33 01 30.83 Polymer Lining for Concrete Manholes

1.02 SUBMITTALS

Submit Drawings and complete design data showing methods and equipment to be utilized in sewer bypassing and dewatering. Include the following information:

- A. Indicate location of temporary sewer plugs and bypass discharge lines on Drawings.
- B. Capacities of pumps, prime movers, and standby equipment.
- C. Standby power source.
- D. Traffic control plan.

1.03 PROJECT CONDITIONS

Available data and records are indicated in Contract documents.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. Provide temporary pumps, conduits, and other equipment to bypass sewer flow.
 - 1. Equip engines with mufflers and/or enclose to keep noise level less than 50 decibels, or 10 decibels above ambient noise levels when measured at building closest to noise source.
 - 2. Provide pumps and bypass lines of adequate capacity and size to handle flows.
- B. Maintain sufficient equipment and materials on site to ensure continuous and successful operation of bypass and dewatering systems.
 - 1. Keep standby pumps fueled and operational at all times.

2. Maintain on site sufficient number of valves, tees, elbows, connections, tools, sewer plugs, piping, and other parts or system hardware to ensure immediate repair or modification of any part of system as necessary.
- C. Provide piping, joints and accessories designed to withstand at least twice the maximum system pressure, or 50 psi (345 kPa), whichever is greater.

PART 3 - EXECUTION

3.01 PROTECTION

- A. In areas where flows are bypassed, discharge bypass flow to sanitary sewer approved by Engineer. No bypassing to ground surface, receiving waters, storm drains, or bypassing which results in groundwater contamination or potential health hazards shall be permitted.
- B. In the event sewage accidentally drains into drainage system or street, immediately stop overflow, notify Engineer, and take necessary action to clean up and disinfect spillage to satisfaction of Engineer.
 1. If sewage is spilled onto public or private property, wash down, clean up, and disinfect spillage to satisfaction of Engineer.
 2. Immediately report overflows to Engineer.

3.02 APPLICATION

- A. Plugging or Blocking: Insert sewer line plug into line upstream of section being worked. Design plug so that all or any portion of sewage can be released.
 1. If sewer flow control is required for TV inspection, reduce flow to comply with requirements specified in Section 33 01 30.14 Sewer Cleaning and CCTV Inspection.
 2. After cleaning, inspection, or rehabilitation work has been completed, restore flow to normal.
- B. Pumping and Bypassing: When pumping and bypassing is required, provide pumps, conduits, and other equipment to divert flow of sewage around manhole section in which work is to be performed.
 1. Bypass system shall have sufficient capacity to handle existing flow plus additional flow that may occur during peak flow periods or from precipitation.
 2. Construct bypass system of material to prevent leakage during pumping operation.

3.03 CLEANING

- A. Keep premises free from accumulations of waste materials, rubbish, and other debris resulting from work.
- B. Remove waste materials, rubbish, and debris from and about premises.
- C. Remove tools, construction equipment and machinery, and surplus materials.

- D. Restore to original condition portions of site not designated for alterations by Contract Documents.
- E. When by-pass pumping operations are complete, drain piping into sanitary sewer prior to disassembly.

END OF SECTION 33 01 30.15

SECTION 33 01 30.72
CURED-IN-PLACE PIPE (CIPP)

PART 1 – GENERAL

1.01 WORK INCLUDED

- A. This specification covers the materials and method of application for the rehabilitation of gravity sanitary sewers through the use of cured-in-place pipe (CIPP). The work consists of furnishing all labor, equipment, material, electric power, and traffic control to accomplish the work in accordance with these specifications. The installation of a resin-impregnated flexible tube shall provide the complete interior relining of existing sanitary sewer piping and shall result in a continuous, smooth, hard, strong, and chemically inert interior finish that is tight fitting and which closely follows the contours of the existing piping. The Contractor shall provide a completed system with the trunk sewer and all lateral connections in operational condition.
- B. The Contractor shall provide all necessary television monitoring and cutting equipment and perform all work required to cut out unnecessary liner material at the locations of all existing lateral pipes and reestablish service to all laterals entering the trunk sewer. All television inspection videos to be provided to the District shall be in digital file format.

1.02 GENERAL DESCRIPTION

- A. The method of rehabilitation shall be cured-in-place pipe (CIPP) as described herein for the line(s) listed in this bid document. The method includes cleaning and video inspection of the designated line, identification of existing live taps, removing of protruding taps by remote methods, performing point repairs, installation of a resin-impregnated tube into the existing pipe, followed by curing as specified by the resin manufacturer, reopening service taps into the line, sampling and testing, and clean-up. Before final acceptance of each line segment, a post-rehabilitation video inspection and sample testing must be conducted and approved. Rehabilitation must be completed for the full length from manhole to manhole, resulting in a sound, tight-fitting water-tight liner with a smooth interior surface.
- B. Confined space entry and work site protection shall be the responsibility of the Contractor and costs of these items are considered incidental to the project. Where work is performed on State roadways or highways, the District shall coordinate required traffic control with appropriate agency personnel and notify the Police and Fire Departments in advance of any and all road or lane closures. The Contractor shall comply with applicable OSHA safety regulations and requirements.

1.03 EXPERIENCE RECORD OF CONTRACTORS

The Contractor shall have successfully managed and completed not less than 50,000 lineal feet of CIPP rehabilitation projects on lines ranging in size from the smallest line on the project to the largest line on the project within the last three (3) years prior to the bid date.

1.04 REFERENCE STANDARDS

These specifications reference standards from the American Society for Testing and Materials (ASTM) inclusive of:

- A. ASTM F1216 (including Appendix X.1) – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.
- B. ASTM F1743 – Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP)
- C. ASTM D5813 - Standard Specification for Cured-in-Place Thermosetting Resin Sewer Pipe
- D. ASTM D790 – Standard Test Methods for Structural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- E. ASTM D2990 – Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics
- F. ASTM C581 – Standard Practice for Determining Chemical Resistance of Thermosetting Resins Use in Glass Fiber Reinforced Structures, Intended for Liquid Service
- G. ASTM D543 – Test Method for Resistance of Plastics to Chemical Reagents
- H. ASTM D638 – Test Method for Tensile Properties of Plastics

The above standards are made a part of these specifications by such reference and shall be the latest edition and revision thereof. In case of conflicting requirements between these specifications and these referenced documents, these specifications shall govern.

1.05 PRODUCT, MANUFACTURER/INSTALLER QUALIFICATIONS REQUIREMENTS

- A. The CIPP system proposed (materials, methods, and workmanship) must be proven through previous successful installations to an extent and nature satisfactory to the District that said prior experience is commensurate with the size of the project being proposed in this bid.

Since CIPP is intended to have a minimum 50-year design service life, only products incorporating the materials, methods of installation, and QA/QC procedures deemed to have this performance level will be accepted. All trenchless rehabilitation products and their licensed installers must be pre-approved as commercially proven prior to submission of a bid.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. THE TUBE. The tube shall consist of one or more layers of a flexible needled felt or an equivalent nonwoven or woven material (such as fiberglass), or a combination of nonwoven and woven materials meeting the requirements of ASTM F1216, Section 5.1 or ASTM F1743, Section 5.2.1 or ASTM D5813, Sections 5 and 6, capable of carrying the prescribed quantity of resin, withstanding the required installation pressures and curing process temperatures. Tube selection shall be pipe segment specific and must be approved by the Engineer or his designated representative. The tube's materials of construction should be compatible with the resin system to be used on this project. The material should be able to stretch to fit irregular pipe sections, negotiate minor bends, and dimple at any service or branch connections.
1. The tube should be fabricated to a size that, when installed, will tightly fit the internal circumference and the length of the original pipeline or conduit. Allowances should be made in its manufacture for the longitudinal and circumferential stretching that occurs during the placement of the tube.
 2. The tube shall be uniform in thickness and, when subjected to the installation pressures, will meet or exceed the designed finish wall thickness throughout its length.
 3. Any plastic film applied to the tube on what will become the interior wall of the finished CIPP shall be compatible with the resin system used, translucent enough that the resin saturation is clearly visible, and shall be firmly bonded to the felt material. [Tubes with removable calibration tubes such as those used in UV light-cured CIPP do not have to meet this bonding requirement.]
 4. The outside layer of the tube shall be coated with an impermeable, flexible membrane that will contain the resin and allow the resin impregnation (wet out) procedure to be monitored.
 5. The tube shall contain no intermediate or encapsulated elastomeric layers. No material shall be included in the tube that may cause delamination in the cured CIPP. No dry or unsaturated layer shall be evident.
 6. Seams in the tube shall be stronger than the non-seamed felt material.
 7. The tube shall be marked for distance at regular intervals along its entire length, not to exceed five (5) feet. Such markings shall also include the CIPP System Manufacturer's name or identifying symbol (brand). The tube must be manufactured in the U.S. The wall color of the interior pipe surface of the CIPP shall be relatively light reflective color so that a clear and detailed examination with closed circuit television inspection equipment may be made.
- B. THE RESIN SYSTEM. The resin system shall be a corrosion resistant polyester resin that when properly cured within the tube composite meets the minimum

requirements given herein of ASTM F1216, ASTM D5813, and ASTM D1743, or those that are to be utilized in the design of the CIPP for this project. The resin shall produce a CIPP that will comply with the structural requirements and chemical resistance requirements of these specifications.

1. The resin system shall be formulated for the CIPP application. Its viscosity shall be conducive to its being saturated into the void space of the tube's matrix; and its thixotropy shall be adjusted to minimize its migration during the tube installation process.
2. The pot life of the catalyzed resin system should be such that it provides a reasonable timeframe for the tube to be installed.
3. The resin system used on this project shall be within the resin manufacturer's recommended shelf life. Resins that are expired are not permissible.

PART 3 - EXECUTION

3.01 STRUCTURAL REQUIREMENTS

- A. The design thickness of the liner shall be arrived at using standard engineering methodology. STM F1216, Appendix X.1, in its latest form has such an acceptable methodology that may be used where applicable. The long-term flexural modulus to be used in the design shall have been verified through long-term testing. The long-term modulus shall not exceed 50% of the short-term value for the resin-tube system unless testing demonstrates a greater value should be used. The CIPP design shall assume no bonding to the original pipe wall.
- B. The Contractor must have performed long-term testing for flexural creep of the CIPP material installed by their company. Such testing results are to be used to determine the long-term, time dependent flexural modulus to be utilized in the product design. This performance test of the materials (tube and resin) and general workmanship of the installation and curing is defined within the relevant ASTM standard. A percentage of the instantaneous flexural modulus value (as measured by ASTM D790 testing) will be used in the design calculations for external buckling. The percentage, or the long-term creep retention value utilized, will be verified by this testing. Retention values exceeding 50% of the short-term test results shall not be applied unless substantiated by qualified third party test data to the satisfaction of the District. The materials utilized for the contracted project shall be of quality equal to or better than the material used in the long-term test with respect to the initial flexural modulus used in the CIPP design.
- C. The layers of the finished CIPP shall be uniformly bonded so that they act as a whole. It shall not be possible to separate any two layers with a probe or point of a knife blade so that the layers separate cleanly or such that the knife blade moves freely between the layers. If separation of the layers occurs during testing of the field samples, new samples will be cut from the work. Any reoccurrence may be cause for rejection of the work by the Public Works Director or his authorized representative.

- D. The finished CIPP shall fit tightly to the host pipeline at all observable points and shall meet or exceed the minimum thickness established by the design process. The materials properties of the finished CIPP shall conform to the following minimum structural standards:

<u>Property</u>	<u>ASTM Test Method</u>	<u>Polyester System</u>	<u>Filled Polyester System</u>	<u>Vinyl Ester System</u>
Flexural Strength	D790	4,500 psi	4,500 psi	4,500 psi
Flexural Modulus (Initial)	D790	250,000 psi	250,000 psi	300,000 psi
Flexural Modulus (50 yr)	D790	150,000 psi	150,000 psi	150,000 psi
Tensile Strength	D638	3,000 psi	3,000 psi	3,000 psi

- E. The cured-in-place liner thickness shall be designed in accordance with ASTM F1216, Appendix X.1 and the following design conditions:
1. Groundwater table elevation: 10-15 feet below ground surface
 2. Depth of cover: measured at manholes
 3. H-20 live load
 4. Partially deteriorated "host" pipe
 5. Factor of safety against buckling: 2.0
 6. Long-term modulus of elasticity for 50-year design life
 7. Unit weight of soil: 130 pounds per cubic foot
 8. Pipes shall be assumed to have ovalities as observed in the field, but not less than three (3) percent
 9. Modulus of soil stiffness: 1,250 psi for sewer depths less than 25 feet and 1,500 psi for sewer depths greater than 25 feet
- F. Any layers of the tube that are not saturated with resin prior to insertion into the existing pipe shall not be included in the structural CIPP wall thickness computation.

3.02 TESTING REQUIREMENTS

- A. **CHEMICAL RESISTANCE.** The CIPP shall meet the chemical resistance requirements of ASTM F1216, Appendix X2. CIPP samples for testing shall be of tube and resin system similar to those proposed for actual construction. It is required that the CIPP samples with and without plastic coating meet these chemical-testing requirements.
- B. **HYDRAULIC CAPACITY.** Overall, the hydraulic cross-section shall be maintained as large as possible. The CIPP shall have a minimum of the full flow capacity of the original pipe before rehabilitation. Calculated capacities may be derived using commonly accepted roughness coefficients for the existing pipe material taking into consideration its age and condition.
- C. **CIPP FIELD SAMPLES.** When requested by the District, the Contractor shall submit test results from field installations of the same resin system and tube

materials as proposed for the actual installation. These test results must verify that the CIPP physical properties specified in Section 3.01.D have been achieved in previous field applications. Samples for this project shall be made and tested as described in Section 3.06.A.

3.03 INSTALLATION

- A. The CIPP shall be installed in accordance with the practices given in ASTM F1216 (for direct inversion installations) and ASTM F1743 or ASTM F2019 (for pulled-in-place installations). The quantity of resin used for the tube's impregnation shall be sufficient to completely fill the volume of the void space in the tube with additional allowances being made for polymerization shrinkage and the loss of any resin migration through cracks and irregularities in the original pipe wall. A vacuum impregnation process shall be used in conjunction with a roller system to achieve a uniform distribution of the resin throughout the tube. The Contractor shall document the volume of resin placed in each tube and the volume of resin indicated by the tube's manufacturer for a complete filling of the void space. Any tube failing to accept the full amount of resin per the tube manufacturer's specifications shall be brought to the District's Inspector's attention prior to its installation to allow for a visual inspection. Tube's failing to accept at least 95% of the prescribed resin amount must be reviewed by the Public Works Director or his authorized representative prior to its installation.
- B. The wet out tube shall be positioned in the pipeline using either inversion or pull-in method (pull in method MUST be pre approved by the Public Works Director or his designated representative before installation) as defined within relevant ASTM standards previously stipulated. If pulled into place, a power winch or its equivalent should be utilized and care should be exercised not to damage the tube as a result of pull-in friction. The tube should be pulled in or inverted through an existing manhole or approved access point and fully extended to the next designated manhole of termination point.
- C. Temperature sensors shall be placed at the upstream and downstream ends of the reach being lined to monitor the pressurized fluid's (air or water) temperature during the curing process. To monitor the temperatures inside the tube wall and to verify proper curing, temperature sensors shall be placed between the host pipe and the liner in the bottom of the host pipe (invert) throughout the reach to record the heating and cooling that takes place on the outside of the liner during processing. The sensors shall be spaced apart at intervals no greater than 20-feet for pipe sizes up to 15-inches in diameter; and no greater than 10-feet for pipe sizes 18-inches and larger. Additionally, sensors shall be strategically placed at points where a significant heat sink is likely to be anticipated. The monitoring of these sensors shall be by a small computer which can record the temperatures at this interface throughout the processing of the CIPP utilizing a tamper-proof database.
- D. Prior to installing the liner in the host pipe, the temperature monitoring system's proper functioning shall be confirmed by hooking it up to the computer and observing that the sensors are reporting their ambient temperatures. No more than two (2) sensors in sequence can be found faulty during this test. If three (3) or more sensors in sequence are discovered faulty, a new sensor array shall be

pulled into the host pipe replacing the previously installed array; and the new array shall be again tested for its proper functioning.

- E. Curing of the resin system shall be as per the directions of the CIPP system manufacturer of the CIPP product. The temperatures achieved and the duration of holding the liner at those temperatures shall be per the system manufacturer's established procedures. If any sensor or sensors along the reach indicates that there is a localized issue with respect to achieving proper curing per the written installation procedure, the Contractor/Installer shall address the issue immediately using previously established protocols for such an event. The sensor array's database required in the above paragraph shall have an output report that identifies each sensor by its station in the reach and shows the maximum temperature achieved during the processing of the CIPP and the time sustained at or above the manufacturer's required curing temperature at each sensor. A cool-down process shall be conducted that complies with the resin manufacturer's specifications.

3.04 INSTALLATION RESPONSIBILITIES FOR INCIDENTAL ITEMS

- A. It shall be the responsibility of the District to locate and designate all manhole access points open and accessible for the work, and to provide rights of access to those points. If a District street must be closed to traffic because of the orientation of the pipeline, the District shall institute the actions necessary to do this for the mutually agreed time period. If a State roadway or highway must be closed or have lanes restricted, the District shall be responsible for coordinating with the Illinois Department of Transportation and securing any permits required for such closures or restrictions. The District shall also provide free access to water hydrants for cleaning, installation of the tube, and other work items requiring water.
- B. The Contractor, when required, shall remove all internal debris out of the pipeline that will interfere with the installation of the CIPP. The District shall provide a dumpsite for all debris removed during the cleaning operations. Unless stated otherwise, it is assumed that this site will be at or near the wastewater treatment facility to which the debris would have arrived in absence of the cleaning operation. Any hazardous waste encountered during this project will be considered as a changed condition.
- C. The Contractor, when required, shall provide for the flow of sewage around the section or sections of pipe designated for rehabilitation. The bypass shall be made by plugging the line at the existing upstream manhole and pumping the flow into a downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle all the anticipated flow. The District will require a detail of the bypass pumping plan to be submitted prior to commencing the work.
- D. The Contractor shall provide experienced personnel trained in locating breaks, obstacles, and service connections by closed circuit television that shall perform inspection of the pipelines. The interior of the pipeline shall be carefully inspected to determine the location of any conditions that may prevent proper installation of the CIPP into the pipelines, and it shall be noted so that these conditions may be

corrected. A video in digital format and suitable log documenting pipeline condition assessment shall be kept for later reference by the District.

- E. It shall be the responsibility of the Contractor to clear the line of obstructions such as solids and roots that will prevent the insertion of the CIPP. If pre-installation inspection reveals an obstruction such as a protruding service connection, dropped joint, or a collapse that will prevent the installation process, and it cannot be removed by conventional sewer cleaning equipment, then the District will determine how best to proceed and make a point repair excavation to uncover and remove or repair the obstruction. Such excavation and repair, if to be done by Contractor, shall be approved in writing by the District representative prior to the commencement of the work and shall be considered as an additional contract cost.
- F. The Contractor shall make every effort to maintain service usage throughout the duration of the project. In the event that a lateral sewer will be temporarily out of service, the maximum amount of time of no service shall be eight (8) hours for any property served by the sewer. The Contractor shall be required to notify the District and the residents/occupants of all affected properties informing them of the work to be conducted and when the sewer laterals will be off-line, suggesting water usage should be limited until the sewer main is back in service.
- G. A public notification program shall be implemented, and shall as a minimum, require the Contractor to be responsible for contacting persons at each home or business connected to the sanitary sewer and informing them of the work to be conducted, and when the sewer will be off-line. The Contractor shall also provide the following:
 - 1. Written notice to be delivered, not less than seven (7) calendar days prior to beginning of work, to each home or business describing the work, schedule, how it affects them, and a local telephone number of the Contractor they can call to discuss the project or any problems that could arise.
 - 2. Personal contact and attempted written notice the day prior to the beginning of work being conducted on the section relative to the residents affected.
 - 3. Personal contact with any home or business that cannot be reconnected within the time stated in the written notice.
- H. The Contractor shall be responsible for confirming the locations of all branch service connections prior to installing the CIPP.

3.05 REINSTATEMENT OF BRANCH CONNECTIONS

- A. It is the intent of these specifications that branch connections to buildings be re-opened without excavation, utilizing a remotely controlled cutting device, monitored by a closed circuit television. The Contractor shall certify a minimum of two (2) complete functional cutters plus key spare components are on the jobsite before each installation, or that the key spare components are in the immediate area of the jobsite and can be quickly obtained. The Contractor must also "buff" each lateral service connection with a wire wheel attachment on a remotely

controlled cutting device after lateral reinstatement. This will not be a separate pay item and shall be considered an incidental cost to the reinstallation of the branch connection. Unless otherwise directed by the District or the District's authorized representative, all laterals shall be reinstated. No additional payment will be made for excavations for the purpose of reopening connections, and the Contractor will be responsible for all costs and liability associated with excavation and restoration work.

3.06 INSPECTION AND QUALITY ASSURANCE PROCEDURES

- A. The Contractor shall prepare, in accordance with appropriate ASTM standards, a sample for each installation of CIPP that is undertaken. The samples shall be restrained samples for diameters of CIPP less than 18"; and flat plate samples for diameters of CIPP 18" and larger. Restrained samples shall be made using forms having a similar I.D. to that of the existing piping. The sample shall be taken preferably from an intermediate manhole or the receiving manhole. The form must be maintained in a reasonably horizontal orientation with a proper heat sink (i.e. sandbags). The length of the form shall be a minimum of two (2) times and preferably three (3) times the sample length required by the laboratory. The flat plate samples shall be taken directly from the wet out tube, clamped between flat plates, and cured in the downtube. The samples shall be tested for thickness and initial physical properties. A certified copy of these test results shall be delivered to the District or District's Representative (Inspector).
- B. In addition to physically sampling the finished CIPP, the Contractor shall post-televisize the completed work in accordance with the appropriate ASTM standards. The television inspection should be used to confirm tightness of the fit of the CIPP to the host pipe and to identify any imperfections or conditions in the new CIPP. The flow shall be bypassed during the post-televising work so that a full, unobstructed view of the newly installed liner can be obtained. The closed circuit television camera shall be properly setup so that it is approximately in the center of the pipeline and that the lighting is attenuated such that it will produce an accurate image of the finished CIPP. The finished liner shall be continuous over its entire length and be free from visual defects such as foreign inclusions, dry spots, holes, and delamination. All observed conditions shall be logged using the same methodology as was used for the pre-televising survey. A video and suitable log documenting the final closed circuit television survey, including the coding log, shall be delivered to the District or District Representative.
- C. Along with the physical properties testing and post-installation closed circuit television survey, the Contractor/Installer shall deliver a certified copy of the curing report output from the temperature monitoring system used in the control of the curing process, or provide the District or District Representative with access to the website where the secure report can be obtained.

3.07 CLEANUP

- A. Upon acceptance of the installation work and testing, the Contractor shall restore the project area affected by the operations to a condition at least equal to that existing prior to the work commencing.

3.08 PAYMENT

- A. Payment for the work included in this section will be in accordance with the unit prices set forth in the proposal/bid for the quantity of work performed. For projects taking more than thirty (30) days to install, progress payments will be made on the work performed and found acceptable for that period.

END OF SECTION 33 01 30.72

SECTION 33 01 30.83
POLYMER LINING FOR CONCRETE MANHOLES

PART 1 – GENERAL

1.01 DESCRIPTION

- A. The work described within details a complete program for wastewater structure lining and rehabilitation. This specification details the methods, procedures, materials and equipment required to produce "A Total Lining System for Wastewater Structures". The completed system will provide a corrosion resistant liner that restores the surface profile and eliminates water infiltration and exfiltration.

1.02 REFERENCES

- A. ASTM D7234 - Adhesion
- B. ASTM D412 - Tensile Strength (PSI)
- C. ASTM D412 - Elongation (%)
- D. ASTM D624 - Tear Strength (PLI)
- E. ASTM D2240 - Hardness
- F. ASTM D522 - Flexibility (1/8" mandrel)
- G. ASTM D4060 - Taber Abrasion (mg loss)

1.03 SUBMITTALS

- A. All materials and procedures required to establish compliance with the specifications shall be submitted upon request to the owner/engineer for review/approval. Submittals shall include at least the following:
 - 1. Technical Data Sheet on each product used.
 - 2. Safety Data Sheet (SDS) for each product used.
 - 3. Manufacturer's Certification of Applicator.
 - 4. Certified Applicator Minimum Qualifications (Section 1.04 D).
 - 5. Descriptive literature, bulletins and or catalogs of materials.
 - 6. Work procedures including flow diversion plan, method of repair, etc.
 - 7. Material and method for repair of leaks or cracks in the structure.
 - 8. Applicator and Manufacturer warranty forms (Section 4.01)

1.04 QUALITY ASSURANCE

- A. The manufacturer of the total lining system for wastewater structures shall be a company that specializes in the design and manufacture of corrosion protection materials /systems for wastewater structures.
- B. The applicator (company performing the installation) shall be completely trained in leak repair, surface preparation and application of the lining system.
- C. The materials/products shall be suitable for installation in a wastewater environment without any deterioration of the liner.
- D. The applicator shall be trained and provide a letter of certification from the manufacturer for the handling, mixing, application, and inspection of the liner system as described herein.

- E. To ensure total unit responsibility, all materials and installation thereof shall be furnished and coordinated by manufacturer/certified applicator.

PART 2 – PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. The materials to be utilized in the lining of wastewater structures shall be designed and manufactured to withstand the severe effects a wastewater environment. The manufacturer of the corrosion protection products shall have at least 10 years of experience in the production of the lining products utilized, and the products shall have satisfactory installation record.
- B. Equipment for installation of lining materials shall be of high quality and as recommended by the manufacturer.
- C. The lining system to be utilized for wastewater structures shall be a multi-layer 'stress skin panel' liner system as described below:

1. Liner:

<u>Installation</u>	<u>Liner</u>
Moisture barrier	Modified Polymer (Silicone modified polyurea)
Surfacer	Polyurethane/Polymeric blend foam
Final corrosion barrier	Modified polymer (Silicone modified Polyurea)

2. The Modified polymer (silicone modified polyurea) shall be sprayable, solvent free, two-component polymeric, moisture/chemical barrier specifically developed for the corrosive wastewater environment.
3. The Polyurethane Rigid Structure Foam, shall be low viscosity two-component, containing flame retardants.
4. Total thickness of multi-layer liner system shall be a minimum of 500 mils.

PART 3 – EXECUTION

3.01 INITIAL INSPECTIONS

- A. Applicator shall take appropriate action to comply with all local, state, and federal regulations including those set forth by OSHA, EPA, the Owner and any other applicable authorities.
- B. Prior to conducting any work, an initial inspection of the structure shall be performed to determine need for protection against hazardous gases or oxygen depleted atmosphere and the need for flow control or flow diversion.
- C. Submit a plan for flow control or bypass to the owner/engineer for approval prior to conducting the work.

- D. New Portland cement structures shall have endured a minimum of 28 days since manufacture prior to commencing installation of the liner system.

3.02 SURFACE PREPARATION

- A. The surface preparation program will include checking the atmosphere for hydrogen sulfide, methane, low oxygen, or other gases, approved flow control equipment, and surface preparation equipment.
- B. Surface preparation for standard manhole structures shall be in accordance with the manufacturer's recommendations, and may include high pressure water cleaning and shall provide a surface compatible for installation of the liner system.
- C. Surface preparation and methods for other structures shall be in accordance with the manufacturer's recommendations, and may include high pressure water cleaning, hydro blasting, abrasive blasting, grinding, or detergent water cleaning, and shall be suited to provide a surface compatible for installation of the liner system.
- D. The surface preparation method shall produce a cleaned, abraded and sound surface with no evidence of laitance, loose concrete, loose brick, loose mortar, contaminants or debris, and shall display a surface profile suitable for application of the liner system in accordance with the manufacturer's recommendations.
- E. After completion of surface preparation, perform the seven point check list, inspecting for:
 - 1. Leaks
 - 2. Cracks
 - 3. Holes
 - 4. Exposed Rebar
 - 5. Ring and Cover condition
 - 6. Invert Condition
 - 7. Inlet and Outlet Pipe Condition
- F. After the defects in the structure are identified, repair all leaks and severe cracks with a hydrophilic polyurethane, or other methods approved by the manufacturer.
- G. Upon completion of leak and crack repair, the surface shall be primed in accordance with the manufacturer's recommendations.

3.03 MATERIAL INSTALLATION

- A. Application procedures shall conform to recommendations of the manufacturer, including materials handling, mixing, environmental controls during application, safety and spray equipment.
- B. Spray equipment shall be specifically designed to accurately ratio and apply the liner system.
- C. Application of multi-component liner system shall be in strict accordance with manufacturer's recommendation. Final installation minimum total thickness shall

be 500 mils. A permanent identification and date of work performed shall be affixed to the structure in a readily visible location.

- D. A final written report shall be provided to the owner/engineer detailing the location, date of work and description of the work.

3.04 FINAL INSPECTION

- A. Final liner system shall be completely free of pinholes or voids. Liner thickness shall be the minimum value as described herein.
- B. Visual inspection may be made by the Owner/Engineer. Any deficiencies in the finished liner system shall be marked and repaired according to the procedures set forth by the manufacturer.

3.05 WARRANTY

- A. Applicator and Manufacturer must warrant the liner system installation against failure for a period of 10 years from the installation date. Applicator shall correct failures any time prior to 10 years after the installation date. Failure will be deemed to have occurred if the protective liner fails to: (a) prevent the internal corrosion of the structure or (b) prevent groundwater infiltration. Failure does not include damage resulting from mechanical force or the presence of chemical substances not customarily present or used in Wastewater Structures, defects in the workmanship or devices of others upon which the Wastewater Structure functions or act of God. The liner must be installed in accordance with Manufacturer's instructions by Applicators certified by Manufacturer. Executed 10-year Applicator and Manufacturer warranties are to be provided upon completion of work.

SEWER INSPECTION REPORT

TV without grading of PACP 7.0 inspection

100 to 101

Downstream inspection

PSR 100 TO 101		PO number	Status	Date	Time	Weather
			CI	01/24/2019	12:23:18 PM	Dry - No precipi...
Street		City		Owner		
ROUTE 3		BROOKLYN ILLINOIS		MESD		
Customer	Operator	Certificate number	L surv (ft)	Total I (ft)		
	Blake Zurliene	u114-06019815	491.500	498.000		

Location code	Location details	H (i)	W (i)	Shape	Material	Pre-cleaning	Date cleaned	Pipe use
Easement/Right of ...		70		Circular	RCP	N		SS
Upstream MH	UR to I (ft)	UG to I (ft)	UR to G (ft)	Downstream MH	DR to I (ft)	DG to I (ft)	DR to G (ft)	
100	13.500			101	13.700			
Direction	Flow control	Drainage area	Lining method	Pjl (ft)	Year constr...	Year renewed		
Downstream	Not Controlled							

Video	Media label	Additional info	Purpose	Sheet
100 TO 101_1_1242019.mpg			A	1

Dist (ft)	Code	CD	Observation	At	V1	V2	%	St	O&M	Jt	Remarks	Img
<Start inspection>												
0.0	AMH		Manhole							100		
0.0	MML		Miscellaneous Water Level				40.000					X
14.1	SRC		Surface Damage Reinforce...	12	12			5				X
24.0	IR		Infiltration Runner	3	4				4			X
32.8	IR		Infiltration Runner	8	4				4			X
36.3	IR		Infiltration Runner	3	4				4			X
58.0	IR		Infiltration Runner	3	4				4			X
73.7	IR		Infiltration Runner	2	3				4			X
88.1	IR		Infiltration Runner	3	4				4			X
103.8	IR		Infiltration Runner	8	9				4			X
122.6	IR	S01	Infiltration Runner	8	9				4			X
150.7	IR	F01	Infiltration Runner	8	9				4			X
171.9	IR		Infiltration Runner	9	10				4			X
180.0	ID		Infiltration Dropper	4					3			X
211.2	IG		Infiltration Gusher	5					5			X
216.3	IR		Infiltration Runner	3					4			X
225.3	IG		Infiltration Gusher	8					5			X
241.9	IR		Infiltration Runner	3					4			X
255.2	IR		Infiltration Runner	10					4			X
260.9	ID		Infiltration Dropper	3					3			X
266.1	IR	S02	Infiltration Runner	3					4			X
287.0	IR	F02	Infiltration Runner	4					4			X
297.9	ID		Infiltration Dropper	1					3			X
307.7	IR		Infiltration Runner	10					4			X
310.0	IR		Infiltration Runner	4					4			X
328.0	IR		Infiltration Runner	3					4			X

100 to 101

Downstream inspection

[illegible]

100 to 99
Upstream inspection

[illegible]

56 to 58

Downstream inspection

PSR 56 TO 58		PO number 		Status CI		Date 02/05/2019		Time 9:44:23 AM		Weather Dry - No precipi...		
Street 40TH ST		City E. ST LOUIS ILLINOIS				Owner MESD						
Customer 		Operator Blake Zurliene		Certificate number u114-06019815			L surv (ft) 6.200		Total I (ft) 622.000			
Location code Easement/Right of ...		Location details 		H (i) 38	W (i) 	Shape Circular	Material RCP	Pre-cleaning N	Date cleaned 		Pipe use SS	
Upstream MH 56	UR to I (ft) 13.500	UG to I (ft) 	UR to G (ft) 	Downstream MH 58	DR to I (ft) 15.000	DG to I (ft) 	DR to G (ft) 					
Direction Downstream	Flow control Not Controlled	Drainage area 	Lining method 	Pjl (ft) 	Year constr... 	Year renewed 						
Video 56 TO 58_10_252019.mpg			Media label 		Additional info 				Purpose A		Sheet 1	

Dist (ft)	Code	CD	Observation	At	V1	V2	%	St	O&M	Jt	Remarks	Img
<Start inspection>												
0.0	AMH		Manhole								56	
0.0	MM		Miscellaneous Water Level				40.000					
6.2	MSA		Miscellaneous Survey Aban...									X
17.1	TFC		Tap Factory Capped	11		12.000						X
<Complete Inspection>												

Downstream inspection

[illegible]

Downstream inspection

[illegible]

Downstream inspection

Dist (ft)	Code	CD	Observation	At	V1	V2	%	St	O&M	Jt	Remarks	Img
<Start inspection>												
0.0	AMH		Manhole								64	
0.0	MM		Miscellaneous Water Level				35.000					X
30.2	IR		Infiltration Runner	2					4			X
219.6	AMH		Manhole								66	X
<Complete Inspection>												

Upstream inspection

[illegible]

Upstream inspection

Dist (ft)	Code	CD	Observation	At		V1	V2	%	St	O&M	Jt	Remarks	Img
<Start inspection>													
0.0	AMH		Manhole									76	
0.0	MM		Miscellaneous Water Level					35.000					X
367.3	DAR		Deposits Attached Ragging	11	1			5.000		2			X
372.7	AMH		Manhole									75	X
<Complete Inspection>													

Downstream inspection

98 to 99

Downstream inspection

PSR 98 TO 99		PO number 19018MO-1		Status CI		Date 02/01/2019		Time 7:47:47 AM		Weather Dry - No precipi...	
Street ROUTE 3		City BROOKLYN ILLINOIS				Owner MESD					
Customer		Operator Blake Zurliene		Certificate number u114-06019815				L surv (ft) 6.300		Total I (ft) 600.000	
Location code Easement/Right of ...		Location details		H (i) 60	W (i)	Shape Circular	Material RCP	Pre-cleaning N	Date cleaned		Pipe use SS
Upstream MH 98	UR to I (ft) 12.500	UG to I (ft)	UR to G (ft)	Downstream MH 99	DR to I (ft) 13.500	DG to I (ft)	DR to G (ft)				
Direction Downstream	Flow control Not Controlled	Drainage area	Lining method	Pjl (ft)	Year constr...	Year renewed					
Video 98 TO 99_7_212019.mpg		Media label		Additional info				Purpose A		Sheet 1	

[illegible]

TV without grading of PACP 7.0 inspection

99 to 100

Downstream inspection

PSR 99 TO 100		PO number 19018MO-1	Status CI	Date 01/28/2019	Time 10:51:45 AM	Weather Dry - No precipi...	
Street ROUTE 3		City BROOKLYN ILLINOIS		Owner MESD			
Customer	Operator Blake Zurliene	Certificate number u114-06019815		L surv (ft) 998.500	Total I (ft) 1900.000		

Location code Easement/Right of ...	Location details	H (i) 75	W (i) 75	Shape Square	Material RCP	Pre-cleaning N	Date cleaned	Pipe use SS
Upstream MH 99	UR to I (ft) 13.500	UG to I (ft)	UR to G (ft)	Downstream MH 100	DR to I (ft) 13.500	DG to I (ft)	DR to G (ft)	
Direction Downstream	Flow control Not Controlled	Drainage area	Lining method	Pjl (ft)	Year constr...	Year renewed		

Video 99 TO 100_2_1282019.mpg	Media label	Additional info	Purpose A	Sheet 1
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Dist (ft)	Code	CD	Observation	At	V1	V2	%	St	O&M	Jt	Remarks	Img
<Start inspection>												
0.0	AMH		Manhole								99	
0.0	MML		Miscellaneous Water Level				50.000					X
461.1	TFA		Tap Factory Activity	12	12.000							X
487.7	TFA		Tap Factory Activity	12	12.000							X
492.6	TFC		Tap Factory Capped	9	18.000							X
493.6	OB		Obstruction Intruding Thr...	8			5.000		5			X
625.6	TFA		Tap Factory Activity	9	12.000							X
651.9	TFA		Tap Factory Activity	9	12.000							X
794.7	TFA		Tap Factory Activity	12	12.000							X
998.5	AMH		Manhole								CABLE	X
<Complete Inspection>												

TV without grading of PACP 7.0 inspection

mh 18 to mh 17

Downstream inspection

PSR MH inspection		PO number 19018MO-1		Status CI		Date 01/24/2019		Time 12:36:58 PM		Weather	
Street Forest BLVD		City Granite City IL				Owner MESD					
Customer		Operator David Jones		Certificate number U-114-06019812			L surv (ft) 10.500		Total I (ft)		
Location code Railway		Location details mh near RR tracks.. For...		H (i) 18	W (i)	Shape Circular	Material VCP	Pre-cleaning N	Date cleaned		Pipe use SS
Upstream MH mh 18	UR to I (ft) 10.700	UG to I (ft)	UR to G (ft)	Downstream MH mh 17	DR to I (ft) 10.000	DG to I (ft)	DR to G (ft)				
Direction Downstream	Flow control	Drainage area	Lining method	Pjl (ft)	Year constr...	Year renewed					
Video MH inspection_357_01_24_2019.mpg		Media label media label		Additional info				Purpose A		Sheet 1	

Dist (ft)	Code	CD	Observation	At	V1	V2	%	St	O&M	Jt	Remarks	Img
<Start inspection>												
0.0	AMH		Manhole								Starting manhole: m h 18.. MH INSPECTI ON ONLY	X
0.0	MML		Miscellaneous Water Level				100.000					X
7.4	MGP		Miscellaneous General Pho...									X
7.4	MGP		Miscellaneous General Pho...									X
10.5	MGP		Miscellaneous General Pho...									X
10.5	AMH		Manhole								Finishing manhole: mh 18.. mh inspecti on/pics	X
<Complete Inspection>												

TV without grading of PACP 7.0 inspection

mh 17 to mh 16

Downstream inspection

PSR MH inspection			PO number 19018MO-1		Status CI		Date 01/24/2019		Time 1:33:44 PM		Weather	
Street Forest BLVD			City Granite City				Owner MESD					
Customer			Operator David Jones		Certificate number U-114-06019812			L surv (ft) 9.600		Total I (ft)		
Location code Railway		Location details Forest BLVD. ROW.. MH...		H (i) 18	W (i)	Shape Circular	Material VCP	Pre-cleaning N	Date cleaned		Pipe use SS	
Upstream MH mh 17		UR to I (ft) 10.000	UG to I (ft)	UR to G (ft)	Downstream MH mh 16	DR to I (ft) 9.600	DG to I (ft)	DR to G (ft)				
Direction Downstream		Flow control	Drainage area	Lining method	Pjl (ft)	Year constr...	Year renewed					
Video MH inspection_358_01_24_2019.mpg			Media label media label		Additional info				Purpose A		Sheet 1	

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