

NORWICH PUBLIC UTILITIES

16 South Golden Street
Norwich, Connecticut



Project Manual & Specifications For:

Stony Brook Transmission Main Renewal

Bid No. 7625

Funded in part by a loan from the State of Connecticut Drinking Water State
Revolving Fund

(Revised April 01, 2019)
(Revised February 26, 2019)
(Revised February 1, 2019)
(Revised January 29, 2019)
January 14, 2019

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I. ADVERTISEMENT FOR BIDS

BID NO. 7625

ADVERTISEMENT FOR BIDS

NORWICH PUBLIC UTILITIES IS SOLICITING BIDS FOR
STONY BROOK TRANSMISSION MAIN REHABILITATION - PHASE 1

Sealed bids for STONY BROOK TRANSMISSION MAIN REHABILITATION - PHASE 1 will be received at the Office of the Purchasing Agent at City Hall, 100 Broadway, Norwich, Connecticut 06360 until **2:00 PM on May 8, 2019**, prevailing time.

The date of the general bid opening will be made at least 30 days from the publication of the formal advertisement. All bidding is by sealed bids and bids received will be safeguarded until publicly opened.

The Contract generally consists of the installation of approximately 4,200 linear feet of transmission main piping and appurtenances within Leffingwell Road, Noble Hill Road and CT Route 82 within the Towns of Montville and Bozrah, Connecticut.

On or after **April 4, 2019**, Bid Documents may be downloaded at the following locations:

City of Norwich www.norwichct.org
State of Connecticut www.das.state.ct.us

Bid Documents are available digitally only. Neither the Owner nor Engineer will be responsible for full or partial sets of Bid Documents obtained from any other source.

A pre-bid meeting will be held on **April 16, 2019 at 10:00 AM** at Norwich Public Utilities, 16 South Golden Street, Norwich, CT 06360.

Questions regarding this bid must be submitted in writing to William R. Hathaway, Purchasing Agent, at whathaway@cityofnorwich.org or by facsimile to (860)823-3812, no later than **April 24, 2019** at 2:00 PM EST. Answers will be provided no later than the end of business on **May 1, 2019**. Addenda to bid documents may be issued up to 5 days prior to the bid opening and will be posted on the City of Norwich and State of Connecticut websites. It is the responsibility of bidders to view all addenda.

Any contract or contracts awarded under this invitation for bids are expected to be funded in part by a loan from the State of Connecticut Drinking Water State Revolving Fund. Neither the State of Connecticut nor any of its Departments, agencies, or employees is or will be a party to this invitation for bids or any resulting contract. This procurement will be subject to the requirements contained in subsections (h), (j) and (o) of Section 22a-482-4 of the RCSA.

The Bidder for this project shall hold and provide evidence of a current DAS contractor pre-qualification certificate (not a predetermination letter) for "Site Work" or "Sewer and Water Lines" from the Department of Administrative Services (DAS) of the State of CT according to CGS Section 4b-91. Bidders shall submit with their bids copies of DAS contractor prequalification certificates along with the current Update Bid Statements. In addition, any named subcontractor whose subcontract value is greater than \$500,000 shall hold a current DAS Contractor Prequalification Certificate in the closest applicable classification of the work that the subcontractor will complete in the contract. The bidder must submit with their bid, all applicable Subcontractor DAS Prequalification Certificates. Any bid submitted without a copy of the DAS Prequalification Certificate and an Update Bid Statement for the bidder and DAS Prequalification Certificate for Subcontractors whose subcontract value is greater than \$500,000 shall be

invalid. If you have any questions regarding these requirements contact the State of CT, DAS or visit their website at www.das.state.ct.us.

Bid surety in the form of cash, a certified check or bid bond in the amount of five percent 5% of this bid is required. The successful bidder shall also furnish a 100% Performance Bond, a 100% Payment Bond and a Performance Bond in the amount of \$3,000 payable to the Town of Bozrah to ensure compliance with the requirements of the Inlands Wetland Permit issued by the Town of Bozrah Inland Wetlands Commission.

The successful bidder shall be required to submit documentation that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration. Any employee found on a worksite subject to this section without documentation of successful completion of a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten (10) hours in duration shall be subject to immediate removal.

Contracts for work under this Proposal will obligate the Contractor and Subcontractors not to discriminate in employment practices. Attention is called to the fact that no less than the minimum salaries and wages as set forth in the contract documents must be paid on this project. Responding bidders must ensure that employees and applicants for employment are not discriminated against because of their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such bidder that such disability prevents performance of the work involved.

Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) policies of the State of Connecticut are applicable to this Contract. The fair share construction goals for minority business enterprise (MBE) and women's business enterprise (WBE) participation for this contract is a minimum of three percent (3%) MBE participation and five percent (5%) WBE participation, applicable to the total dollars paid to the SRF loan funded portion of this contract. The Bidder shall take all affirmative steps necessary to achieve this goal, and shall provide reports documenting the portion of contract and subcontract dollars paid to minority and women owned businesses, and its efforts to achieve the goals, with each invoice submitted or at such greater intervals as specified by the Owner. The bidder shall require similar reports from its subcontractors. Failure to meet or exceed the required percentage shall render a bid non-responsive and cause the rejection of the Bid. Clean Water Fund Memorandum 2016-003 (CWFM) dated May 25, 2016 must be completed and submitted with the Bid, or that Bid will be deemed nonresponsive.

Norwich Public Utilities reserves the right to reject any or all bids, in whole or in part, to award any item, group of items, or total bid, and to waive any informality in the bids received if it deems it to be in the best interest of the Norwich Public Utilities to do so.

No Bidder may withdraw their bid within 120 days after the actual date of bid opening thereof. Should there be reason why the contract cannot be awarded within the specific period, this time may be extended by mutual agreement between the City and the designated, qualified low Bidder.

Owner and/or Engineer may make such investigations as deemed necessary to determine the ability of Bidder to perform the work and the Bidder shall furnish to Owner all such information for this purpose as Owner may request.

Bid will be awarded to the low, responsive and responsible/qualified Bidder. No award will be made to any Bidder who cannot meet all of the following requirements. Bidder:

- a. Shall not have defaulted on any contract within three years prior to the bid date.
- b. Shall maintain a permanent place of business.
- c. Shall have adequate personnel and equipment to perform the work expeditiously.
- d. Shall have suitable financial status to meet obligations incident to the work.
- e. Shall have appropriate technical experience satisfactory to Owner in the class of work involved.
- f. Shall be registered with the Secretary of the State of Connecticut to do business in Connecticut.
- g. Shall not have failed to perform satisfactorily on contracts of a similar nature.
- h. Shall not have failed to complete previous contracts on time.

The Contract Time shall commence twenty (20) days following the Effective Date of the Agreement and the contractor shall fully complete all work called for under the contract agreement in all parts and requirements within 180 calendar days (excluding any days between December 1 and March 31 if applicable).

Liquidated damages in the amount of \$500 per calendar day shall be assessed upon failure to meet the milestone dates stipulated, in addition to substantial and final completion dates. To the extent that time lines may overlap, the assessment of liquidated damages will be limited to the contractually prescribed rate of \$500 per calendar day.

Bidders are hereby notified that the award of the contract for construction of this project is contingent upon the Owner's receipt of approval of authorization to award construction contract from the State Department of Public Health, and funding commitment from the State of Connecticut. It is the intention of the Owner to award the Contract to the low, responsive and responsible/qualified bidder.

Federal Minimum Wage Rates (Davis-Bacon), including reporting requirements as determined by the United States Department of Labor under the Davis-Bacon Act apply to this project. State of Connecticut prevailing wage rates also apply to this project. When there is a conflict between the Federal and State Wage Rates, the higher wage rate shall apply.

Bidders and subcontractors are required to ensure equal opportunity employment as noted in the Governor's Executive Orders 3, 16 and 17.

Bidders on this work will be required to comply with the President's Executive Order No. 11246 and any amendments or supplements to that Executive Order.

All final awards of the bid subject to comply with Ordinance No. 1235 adopted December 3, 1991.

All bids must be submitted in a sealed envelope bearing the bidder's name and bid number.

Responding bidders must ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, age, handicap, familial status, sex, or national origin.

PURCHASING AGENT

NOTE: BIDDERS ARE HEREBY ADVISED THAT ONLY BID SURETIES FOR THE THREE LOWEST BIDDERS WILL BE HELD. ALL OTHERS WILL BE RELEASED WITHIN SEVEN DAYS.

II. INSTRUCTIONS TO BIDDERS

(EJCDC C-200)

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1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
www.asce.org

Associated General Contractors of America
2300 Wilson Boulevard, Suite 400, Arlington, VA 22201-3308
(703) 548-3118
www.agc.org

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ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. Issuing Office – The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered. In this case the City of Norwich Purchasing Office located at 100 Broadway, Room 105, Norwich, Connecticut.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the advertisement or invitation to bid may be obtained from the locations stated in the advertisement. Neither the Owner nor Engineer will be responsible for full or partial sets of Bid Documents obtained from any other source.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, within **5** days of Owner's request, Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data as may be called for below or as otherwise requested by the Owner.
- A. Not Applicable
- B. List of major equipment available for this contract.
- 3.02 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.
- 3.03 The Bidder for this project shall hold and provide evidence of a current DAS contractor pre-qualification certificate (not a predetermination letter) for "Site Work" or "Sewer and Water Lines" from the Department of Administrative Services (DAS) of the State of CT according to CGS Section 4b-91. Bidders shall submit with their bids copies of DAS contractor prequalification certificates along with the current Update Bid Statements. In addition, any named subcontractor whose subcontract value is greater than \$500,000 shall hold a current DAS Contractor Prequalification Certificate in the closest applicable classification of the work that the subcontractor will complete in the contract. The bidder must submit with their bid, all applicable Subcontractor DAS Prequalification Certificates. Any bid submitted without a copy of the DAS

Prequalification Certificate and an Update Bid Statement for the bidder and DAS Prequalification Certificate for Subcontractors whose subcontract value is greater than \$500,000 shall be invalid. If you have any questions regarding these requirements contact the State of CT, DAS or visit their website at www.das.state.ct.us.

ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.01 Not Applicable

4.02 Underground Facilities

A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

4.03 Not Applicable

4.04 Not Applicable

4.05 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates. The Bidder must perform these investigations within the bid advertisement period and at a time at the discretion of the Owner.

4.06 Not Applicable

4.07 It is the responsibility of each Bidder before submitting a Bid to:

A. examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;

B. visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;

D. Not Applicable

E. Not Applicable

F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for

performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;

- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 – PRE-BID CONFERENCE

5.01 A pre-Bid conference will be held at 10:00 AM local time on April 16, 2019 at Norwich Public Utilities, 16 South Golden Street, Norwich, CT 06360. Representatives of Owner and Engineer will be present to discuss the Project. Attendance is not mandatory. Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 6 – SITE AND OTHER AREAS

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

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

7.01 No interpretation of the meaning of the Drawings, Specifications, or other pre-bid documents will be made to any bidder orally. Every request for such interpretation shall be in writing, addressed to: William R. Hathaway City of Norwich, 100 Broadway, Room 105, Norwich, CT 06360 or whathaway@cityofnorwich.org. Interpretations or clarifications considered necessary in response to such questions will be issued by Addenda. Questions received less than **five** days

prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

- 7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.
- 7.03 Potential Bidders are responsible for checking the City of Norwich website at www.norwichct.org for any addendums and updates regarding this Bid.

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price and in the form of a certified check, bank money order, or a Bid bond (on the form attached) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.
- 8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or 121 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.
- 8.03 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 The number of days within which the Work is to be substantially completed and ready for final payment is set forth in the Agreement.
- 9.02 All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 9.03 Days to Achieve Substantial Completion and Final Payment
 - A. The Work will be substantially completed within 180 days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 180 days after the date when the Contract Times commence to run.
 - B. The time of completion shall exclude the time period from each December 1 through the following March 31 (the "winter shutdown period"). The Contractor shall install temporary pavement for disturbed trenches, and shall be required to maintain the trench paving, binder,

and temporary measures in a stable and safe condition for traffic throughout the duration of the shutdown. There shall be no raised structures left in the roadway. The Contractor shall also be responsible for maintaining erosion & sedimentation control measures and disturbed earth slopes in stable condition throughout the duration of the shutdown. This work shall be completed at no additional expense to the Owner. The Contractor shall be required to return to the site on or before April 1st of the following year to complete the project.

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages are set forth in the Agreement and as follows.
- 10.02 Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner **\$500.00** for each day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete.

ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS

- 11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or those substitute or “or-equal” materials and equipment approved by Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met by any proposed substitute or “or-equal” item. No item of material or equipment will be considered by Engineer as a substitute or “or-equal” unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids. Each such request shall conform to the requirements of Paragraph 6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon Bidder. Engineer’s decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS AND OTHERS

- 12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier,

individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.

- 12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.
- 12.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.
- 12.04 Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) goals are applicable to the total dollars paid to the construction contract. The goals for this project are a minimum of 3.0 percent MBE participation and 5.0 percent WBE participation by certified Disadvantaged Business Enterprises.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents. Additional copies may be obtained from the Engineer.
- 13.02 All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each part of the Bid Proposal, bid item, and unit price item listed therein. The Bid price(s) shall be written in both words and figures, and in the case of a discrepancy between the two the amount in words shall govern.
- 13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.
- 13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.
- 13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 13.06 A Bid by an individual shall show the Bidder's name and official address.
- 13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

- 13.08 All names shall be printed in ink below the signatures.
- 13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.10 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.
- 13.12 Bidders shall include a statement that they will comply with Executive Order No. Three, Executive Order No. Sixteen and Executive Order No. Seventeen, and Office of Federal Contract Compliance Programs (OFCC) Executive Order No. 11246 as Amended, copies of which are attached at the end of this document.
- 13.13 All bidders shall complete and submit the following documents with their bid:
- A. Proposal Form:
 - Acknowledgement of Addendums
 - OSHA Policy & Procedures Included
 - Acknowledgement of NPU Safety Guidelines
 - B. Bid Form – Unit Pricing
 - C. DAS Prequalification Certificate & Update Statement
 - D. Bid Security (Bid Bond or Certified Check)
 - E. Statement of Bidder's Qualifications
 - F. Proposed Subcontractors
 - G. Proposed Suppliers
 - H. Non-Collusion Affidavit
 - I. Non-Discrimination in Employment
 - J. Signed Clean Water Fund Memorandum (2016-003)
 - K. Signed Disadvantage Business Enterprise Subcontractor_Verification Form
 - L. Certificate as to Corporate Principal

ARTICLE 14 – BASIS OF BID; COMPARISON OF BIDS

14.01 Unit Price

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule.
- B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.02 Allowances

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 11.02.B of the General Conditions.

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and all of the attachments outlined in Article 7 of the Bid Form
- 15.02 Sealed Bids (**One (1) Original & Two (2) Copies**) shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title, bid number, time of bid opening and date, the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to the City of Norwich Purchasing Office, City Hall, Room 105, 100 Broadway, Norwich, CT 06360-4431, and must arrive prior to the date and time of Bid Opening.
- 15.03 The bidder agrees and warrants that in the submission of this sealed bid, they will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religion, national origin, sex, or physical disability including, but not limited to blindness, unless it is shown by such bidder that such disability prevents performance of that which must be done to successfully fulfill the terms of this sealed bid or in any manner which is prohibited by the laws of the United States or the State of Connecticut: and further agrees to provide the Human Relations Commission with such information requested by the Commission concerning the employment practices and procedures of the bidder. An Affirmative Action Statement will be required by the successful bidder.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids or authorized postponement thereof.
- 16.02 No Bidder may withdraw their bid within 120 days after the actual date of bid opening thereof. Should there be reason why the contract cannot be awarded within the specific period, this time may be extended by mutual agreement between the City and the designated, qualified low Bidder.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

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

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids or any part of any Bid, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.
- 19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.03 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 19.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.
- 19.06 If Contract is to be awarded, Owner will award the Contract to the responsible Bidder who's Bid, conforming with all the material terms and conditions of the Instructions to Bidders, is lowest, price and other factors considered. If detailed in the bid form, factors such as discounts, transportation costs, and life cycle costs may be used to determine which bidder, if any, is to be offered the award.
- 19.07 The City reserves the right to waive technical defects, irregularities and omissions if, in its judgment, the best interest of the City will be served.
- 19.08 Any contract or contracts awarded under this invitation for bids are expected to be funded in part by a loan from the State of Connecticut Drinking Water State Revolving Fund. Neither the State of Connecticut nor any of its Departments, agencies, or employees is or will be a party to this invitation for bids or any resulting contract. This procurement will be subject to the requirements contained in subsections (h), (j) and (o) of Section 22a-482-4 of the RCSA.
- 19.09 The Contract will be awarded to the low, responsive and responsible qualified Bidder.

ARTICLE 20 – CONTRACT SECURITY AND INSURANCE

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

ARTICLE 21 – SIGNING OF AGREEMENT

- 21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement along with the other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

ARTICLE 22 – SALES AND USE TAXES

- 22.01 Owner is exempt from Connecticut state sales and use taxes on materials and equipment to be incorporated in the Work. (Exemption Number will be provided after execution of the agreement). Said taxes shall not be included in the Bid. Refer to Paragraph 6.10 of the Supplementary Conditions for additional information.

ARTICLE 23 – RETAINAGE

23.01 Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the Last day of each month during performance of the Work as provided below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions.
 - a. 95 percent of Work completed (with the balance being retainage); and
 - b. 0 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

23.02 Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 95 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

ARTICLE 24 – EMPLOYMENT OF LABOR

24.01 The wages paid to mechanics, laborers or workmen employed upon the work herein contracted to be done shall be at a rate equal to the rate of wages prevailing for the same work in the same trade or occupation in the Norwich area as determined by the labor Commissioner of the State of Connecticut. See Section 31.53 of the General Statutes of the State of Connecticut, Revision of 195S, as amended.

24.02 Public Act 79-325 passes by the 1979 Legislature covers exemptions from Section 31.53 of the General Statutes. Under the new exemptions, effective October 1985, the regulations that the prevailing wage must be paid for work performed by contractors and subcontractors in connection with work on public facilities will not apply:

To public work alterations, repair, refinishing projects with total cost of less than \$100,000.

To public works new construction with a total cost of less than \$1,000,000.

All Bidders are informed that the project is considered NEW construction.

24.03 All Bidders are advised to inform themselves and to comply with the requirements of Federal, State and local laws governing the employment of labor.

- 24.04 Federal Davis-Bacon prevailing wage laws, including reporting requirements, shall apply to this project.
- 24.05 The Contractor shall provide certified payroll sheets to the Owner which includes all employees involved with the project for each payroll period during the course of the project.

ARTICLE 25 – PROVISIONAL ITEMS

- 25.01 Provisional items are delineated in the bid form. Quantities for provisional items may or may not be used in whole or in part at the discretion of the Owner. This shall in no way affect the established contract unit prices. All bid unit prices for provisional items shall be added to establish the total bid amount.

ARTICLE 26 – SAFETY STANDARDS

- 26.01 Bidder agrees to comply with all of the latest Federal and State Safety Standards and Regulations and certifies that all work required in this bid will conform to and comply with said standards and regulations. Bidder further agrees to indemnify and hold harmless the Town for all damages assessed against the Town as a result of Bidder's failure to comply with said standards and/or regulations.
- 26.02 Safety and Health Standards: Successful bidders must demonstrate compliance with all applicable OSHA standards including without limitations the following standards:
- 29 CFR 1926.650 “Excavations-Scope, application, and definitions”
 - 29 CFR 1926.651 “Excavations-Specific Excavation Requirements”
 - 29 CFR 1926.652 “Excavations-Requirements for Protective Systems”
 - 29 CFR 1926.Subpart P Appendix F – “Selection of Protective Systems”
 - 29 CFR 1910.1200 “Hazard Communication”
 - 29 CFR 1910.146 “Permit Required Confined Spaces”
 - DOT “Pipeline Safety Regulations Part 192”
- 26.03 The successful bidder shall provide written documentation of each employee’s “Operator Qualifications” for the appropriate required tasks.
- 26.04 The successful bidder shall provide written documentation of the companies Drug & Alcohol policy in accordance with DOT 49 CFR part 199 and DOT 49 CFR part 40
- 26.05 The successful bidder shall provide written “competent person“ training documentation.
- 26.06 The contractor is responsible for ensuring OSHA compliance, and his responsibility includes supervising and monitoring work site conditions for OSHA compliance. If the contractor uses subcontractors the contractor is responsible for ensuring that the subcontractors fulfill their obligations with respect to employee safety, particularly including those which affect the entire site.

26.07 The Owner shall consider OSHA violations(s) over the past five years in determining the ability of the Contractor to comply with OSHA requirements and in determining whether contractor is a responsible bidder. If there has been an OSHA violation within the past five (5) years (measured from the date of the bid), the contractor shall provide copies of the citation(s), all documents regarding final determination of such citations including settlement any explanation(s) of such violation(s).

26.08 The Contractor must also comply with the NORWICH PUBLIC UTILITIES SAFETY GUIDELINES included with these specifications. The contractor must submit a signed “Contractors Safety Requirements Acknowledgement Form” to Norwich Public Utilities prior to the start of construction.

ARTICLE 27 – NOT USED

ARTICLE 28 – DRINKING WATER STATE REVOLVING FUND

28.01 Drinking Water State Revolving Fund (DWSRF): Contractor shall be subject to all DWSRF requirements/contract conditions including but not limited to:

- A. Federal Davis-Bacon prevailing wage laws, including reporting requirements, shall apply to this project.
- B. The Contractor shall provide certified payroll sheets to the Owner which includes all employees involved with the project for each payroll period during the course of the project to verify wage rates.

III. PROPOSAL FORMS

REQUIRED DOCUMENTS – BIDDER’S CHECKLIST

Sealed bids shall include 1 original and 2 copies of all required bid documents

1. Proposal Form:
Acknowledgement of Addendums _____
OSHA Policy & Procedures Included _____
Acknowledgement of NPU Safety Guidelines _____
2. Bid Form – Unit Pricing _____
3. DAS Prequalification Certificate & Update Statement _____
4. Bid Security (Bid Bond or Certified Check) _____
5. Statement of Bidder’s Qualifications _____
6. Proposed Subcontractors _____
7. Proposed Suppliers _____
8. Non-Collusion Affidavit _____
9. Non-Discrimination in Employment _____
10. Signed Clean Water Fund Memorandum (2016-003) _____
11. Signed Disadvantage Business Enterprise Subcontractor
Verification Form _____
12. Certificate as to Corporate Principal _____

PROPOSAL
NORWICH PUBLIC UTILITIES
STONY BROOK TRANSMISSION MAIN REHABILITATION –PHASE 1
NORWICH, CONNECTICUT

Date: _____

City of Norwich
Department of Public Utilities
City Hall
Norwich, Connecticut 06360

The undersigned _____ doing
business in _____
County of _____ State of _____, has examined
the site where the proposed construction is to take place and has carefully read the Information to
Bidders, General Conditions, Special Conditions, Technical Specifications, Addenda, and
examined the drawings therein referred to and he proposes and agrees that he will contract with
the City of Norwich, CT in the form of Contract deposited in the Office of the Purchasing Agent,
City Hall, Norwich, Connecticut to provide all necessary machinery, tools, apparatus, equipment,
and other means of construction and do all the work and furnish all the materials specified in the
contract, called for in the specifications or shown on the drawings in the manner and time
prescribed and according to the requirements of the engineer, as herein set forth and that he will
take in full payment, therefore, the following sums to wit:

This Bid includes Addenda numbered (to be filled in by Bidder if Addenda are issued).

- 1. This bid includes Occupational Safety and Health Company Policy and Procedure per Article 26 of "Instructions to Bidders". _____ (check on line).**

The above item must accompany bid proposal or bid proposal will be deemed nonresponsive.

- 2. The Contractors has read and familiarized themselves with the Norwich Public Utilities Safety Guidelines included in these Specifications. _____ (check on line).**

A signed copy of the Contractors Safety Requirements Acknowledgement Form will be required prior to construction.

BID FORM

NORWICH PUBLIC UTILITIES

STONY BROOK TRANSMISSION MAIN RENEWAL

Bid No. 7625

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:
Office of the Purchasing Agent
City Hall
100 Broadway
Norwich, Connecticut 06360

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 120 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Not Applicable

E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and drawings identified in the

Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.

- F. Based on the information and observations referred to in Paragraph 3.01.E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Unit Prices are to be written in both words and figures. In case of discrepancy, the unit price shown in words will govern.

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Amount</u>
1	Maintenance & Protection of Traffic	1	L.S.	\$ _____	\$ _____
	UNIT PRICE IN WORDS: _____				
2	Temporary Precast Concrete Barrier	100	L.F.	\$ _____	\$ _____
	UNIT PRICE IN WORDS: _____				
3	Sedimentation and Erosion Control	1	L.S.	\$ _____	\$ _____
	UNIT PRICE IN WORDS: _____				
4	Test Pits	25	C.Y.	\$ _____	\$ _____
	UNIT PRICE IN WORDS: _____				

5	Provisional: Trench Excavation & Backfill in Excess of Design Depth	50	C.Y.	\$	\$
UNIT PRICE IN WORDS:					
6	Provisional: Rock Excavation & Disposal	100	C.Y.	\$	\$
UNIT PRICE IN WORDS:					
7	Provisional Item Gravel Fill	100	C.Y.	\$	\$
UNIT PRICE IN WORDS:					
8	Processed Gravel Base	902	C.Y.	\$	\$
UNIT PRICE IN WORDS:					
9	Provisional: Crushed Stone	25	C.Y.	\$	\$
UNIT PRICE IN WORDS:					
10	Temporary Pavement for Trench - 2"	2,702	SY	\$	\$
UNIT PRICE IN WORDS:					
11	Permanent Pavement for Trench - 4"	3,548	SY	\$	\$
UNIT PRICE IN WORDS:					

12 Provisional: Bituminous Concrete Lip Curb 915 L.F. \$ _____ \$ _____

UNIT PRICE IN WORDS:

13 Paved Leak-off 2 S.Y. \$ _____ \$ _____

UNIT PRICE IN WORDS:

14 Intermediate Riprap 5 C.Y. \$ _____ \$ _____

UNIT PRICE IN WORDS:

15 Abandon Existing Water Main with CDF 1 L.S. \$ _____ \$ _____

UNIT PRICE IN WORDS:

16 Connect to Existing 24" Water Main (Noble Hill Road) 1 L.S. \$ _____ \$ _____

UNIT PRICE IN WORDS:

17 8" D.I. Water Main 18 L.F. \$ _____ \$ _____

UNIT PRICE IN WORDS:

18 24" D.I. Water Main 3,630 L.F. \$ _____ \$ _____

UNIT PRICE IN WORDS:

19 24" Insulated D.I. Water Main (Trading Cove Brook) 1 L.S. \$ _____ \$ _____

UNIT PRICE IN WORDS:

20 24"x8" D.I. Tee 1 EA. \$ _____ \$ _____

UNIT PRICE IN WORDS:

21 24" D.I. Pipe Bend (45, 22½ or 11¼) 8 EA. \$ _____ \$ _____

UNIT PRICE IN WORDS:

22 8" D.I. Cap 1 EA. \$ _____ \$ _____

UNIT PRICE IN WORDS:

23 24" D.I. Cap 3 EA. \$ _____ \$ _____

UNIT PRICE IN WORDS:

24 8" D.I. Gate Valve 2 EA. \$ _____ \$ _____

UNIT PRICE IN WORDS:

25 24" D.I Gate Valve 2 EA. \$ _____ \$ _____

UNIT PRICE IN WORDS:

26 Water Service Connection 3 EA. \$ _____ \$ _____
UNIT PRICE IN WORDS:

27 Curb Stop & Box 3 EA. \$ _____ \$ _____
UNIT PRICE IN WORDS:

28 1" PE Service Pipe 140 L.F. \$ _____ \$ _____
UNIT PRICE IN WORDS:

29 1.5" PE Service Pipe 18 L.F. \$ _____ \$ _____
UNIT PRICE IN WORDS:

30 2" Flushing Assembly 1 EA. \$ _____ \$ _____
UNIT PRICE IN WORDS:

31 Fire Hydrant Assembly 3 EA. \$ _____ \$ _____
UNIT PRICE IN WORDS:

32 Blow Off Fire Hydrant Assembly 3 EA. \$ _____ \$ _____
UNIT PRICE IN WORDS:

33 Air Release Fire Hydrant Assembly 2 EA. \$ _____ \$ _____
UNIT PRICE IN WORDS:

34 Temporary Residential Water Service 1 L.S. \$ _____ \$ _____
UNIT PRICE IN WORDS:

35 Connect to Existing Water Main (Leffingwell Road Connection) 1 L.S. \$ _____ \$ _____
UNIT PRICE IN WORDS:

36 Topsoil, Seed, Fertilize & Mulch 100 S.Y. \$ _____ \$ _____
UNIT PRICE IN WORDS:

37 Erosion Control Matting 50 S.Y. \$ _____ \$ _____
UNIT PRICE IN WORDS:

38 Provisional: Cast-in-Place Concrete 10 C.Y. \$ _____ \$ _____
UNIT PRICE IN WORDS:

39 Provisional: Drainage Pipe Replacement (12"-18") 50 L.F. \$ _____ \$ _____
UNIT PRICE IN WORDS:

BASE BID TOTAL: \$ _____

BASE BID TOTAL IN WORDS: _____

ADD ALTERNATE:

BIDDER NOTE: The unit price amounts quoted for the same items of work in the Base Bid and the Add-Alternate that are identified with Asterisks (*) MUST BE IDENTICAL. In the event of a discrepancy, the unit prices and/or lump sum amounts quoted in the BASE BID shall govern. Asterisks (*) indicate such items.

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Amount</u>
A1-1	Maintenance & Protection of Traffic	1	L.S.	\$ _____	\$ _____
	UNIT PRICE IN WORDS:			_____	_____
A1-2	Sedimentation and Erosion Control	1	L.S.	\$ _____	\$ _____
	UNIT PRICE IN WORDS:			_____	_____
*A1-3	Provisional: Test Pits	10	C.Y.	\$ _____	\$ _____
	UNIT PRICE IN WORDS:			_____	_____
*A1-4	Provisional: Trench Excavation & Backfill in Excess of Design Depth	25	C.Y.	\$ _____	\$ _____
	UNIT PRICE IN WORDS:			_____	_____
*A1-5	Provisional: Rock Excavation & Disposal	10	C.Y.	\$ _____	\$ _____
	UNIT PRICE IN WORDS:			_____	_____

*A1-6	Provisional Item Gravel Fill	10	C.Y.	\$	\$
	UNIT PRICE IN WORDS:				
*A1-7	Processed Gravel Base	171	C.Y.	\$	\$
	UNIT PRICE IN WORDS:				
*A1-8	Provisional: Crushed Stone	25	C.Y.	\$	\$
	UNIT PRICE IN WORDS:				
A1-9	Temporary Pavement for Trench - 4"	407	S.Y.	\$	\$
	UNIT PRICE IN WORDS:				
A1-10	Permanent Pavement for Trench - 9" State Road	556	S.Y.	\$	\$
	UNIT PRICE IN WORDS:				
A1-11	Pavement Milling - State Roads	1,000	S.Y.	\$	\$
	UNIT PRICE IN WORDS:				
A1-12	Overlay on Milled Surface - State Road	1,000	S.Y.	\$	\$
	UNIT PRICE IN WORDS:				

*A1-13	Provisional: Bituminous Concrete Lip Curb UNIT PRICE IN WORDS:	350	L.F.	\$	\$
A1-14	Connect to Existing Water Main (Salem Turnpike Connection) UNIT PRICE IN WORDS:	1	L.S.	\$	\$
*A1-15	8" D.I. Water Main UNIT PRICE IN WORDS:	18	L.F.	\$	\$
A1-16	16" D.I. Water Main UNIT PRICE IN WORDS:	630	L.F.	\$	\$
A1-17	16"x8" D.I. Tee UNIT PRICE IN WORDS:	1	EA.	\$	\$
A1-18	16"x16" D.I. Tee UNIT PRICE IN WORDS:	1	EA.	\$	\$
*A1-19	8" D.I. Cap UNIT PRICE IN WORDS:	1	EA.	\$	\$

A1-20	16" Cap	1	EA.	\$	\$
	UNIT PRICE IN WORDS:				
*A1-21	8" D.I. Gate Valve	1	EA.	\$	\$
	UNIT PRICE IN WORDS:				
A1-22	16" D.I. Gate Valve	3	EA.	\$	\$
	UNIT PRICE IN WORDS:				
A1-23	24"x16" D.I. Reducer	1	EA.	\$	\$
	UNIT PRICE IN WORDS:				
*A1-24	Water Service Connection	1	EA.	\$	\$
	UNIT PRICE IN WORDS:				
*A1-25	Curb Stop & Box	1	EA.	\$	\$
	UNIT PRICE IN WORDS:				
*A1-26	1" PE Service Pipe	25	L.F.	\$	\$
	UNIT PRICE IN WORDS:				

*A1-27 Fire Hydrant Assembly 2 EA. \$ _____ \$ _____
UNIT PRICE IN WORDS: _____

*A1-28 Topsoil, Seed, Fertilize & Mulch 20 S.Y. \$ _____ \$ _____
UNIT PRICE IN WORDS: _____

*A1-29 Provisional: Cast-in-Place Concrete 5 C.Y. \$ _____ \$ _____
UNIT PRICE IN WORDS: _____

ADD ALTERNATE BID TOTAL: \$ _____

ADD ALTERNATE BID TOTAL IN WORDS: _____

DEDUCT ALTERNATES:

The undersigned bidder further proposes and agrees that, should the preceding Add Alternates be accepted by the Owner, the amount of the Total Base Bid, as heretofore stated shall be reduced by the amount of the Deduct Alternate.

BIDDER NOTE: The unit price amounts quoted for the same items of work in the Base Bid and the Deduct Alternate that are identified with Asterisks (*) MUST BE IDENTICAL. In the event of a discrepancy, the unit prices and/or lump sum amounts quoted in the Base Bid shall govern. Asterisks (*) indicate such items.

Unit prices are to be written in both words and figures. In case of discrepancy, the unit price shown in words will govern.

This work shall include the following:

- *D1. Elimination of Base Bid Item 16:
Connect to Existing 24" Water Main (Noble Hill Road):

LUMP SUM PRICE: _____

LUMP SUM PRICE IN WORDS: _____

Unit Prices have been computed in accordance with Paragraph 11.03.B of the General Conditions. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Provisional items are delineated in the bid form. Quantities for provisional items may or may not be used in whole or in part at the discretion of the Owner. This shall in no way affect the established contract unit prices. All bid unit prices for provisional items shall be added to establish the total bid amount.

This contract is to be awarded as outlined in Article 19 of the Instructions to Bidders.

This contract is to be awarded to that responsive and responsible Bidder whose total bid is the lowest number of dollars for the above items. The low bid will be determined by either of the following:

- A. If the Owner elects to perform the Add Alternates, then the low bidder will be established by adding the Base Bid total amount (Items 1-39) to **all** the Add Alternate total amounts (Items A1-1 to A1-29) and deducting the Deduct Alternate (Item D1).
- B. If the Owner elects NOT to perform the Add Alternates and Deduct, then the low bidder will be established by adding the Base Bid amount (Items 1-39) only.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within the number of calendar days indicated in the Instructions to Bidders and Agreement.
- 6.02 Bidder accepts the provisions of the Instructions to Bidders and the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security in the form of a Bid Bond, bank money order or Certified Check (circle type of security provided);
 - B. Proposal;
 - C. Statement of Bidders Qualifications
 - C. List of Proposed Subcontractors;
 - D. List of Proposed Suppliers;
 - E. Non-Discrimination in Employment Statement;
 - F. Non-Collusion Affidavit of Prime Bidder;
 - G. Clean Water Fund Memorandum;
 - H. Disadvantaged Business Enterprise (DBE) Subcontractor Verification Form
 - I. Certificate as to Corporate Principal
 - J. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - K. Contractor's License No.: _____ [or] Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids and;
 - L. Connecticut DAS Contractor Prequalification Certificate and Update (bid) Statement
 - M. A Form W-9

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

9.01 This Bid is submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____

By: _____
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): _____

A Corporation

Corporation Name: _____

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____
(CORPORATE SEAL)

Attest _____

Date of Qualification to do business in Connecticut is ____/____/____.

A Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of first joint venture partner - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

9.02 Bidder's Business Address _____

Phone No. _____ Fax No. _____

E-mail _____

SUBMITTED on _____, 20____.

BID BOND

KNOW ALL MEN BY THESE PRESENTS: That we, the undersigned, _____
_____ of _____
_____ (hereinafter called the Principal) as Principal, and _____
_____ a corporation organized and existing under the laws
of the State of _____ and duly authorized to transact a surety
business in the State of Connecticut (hereinafter called the Surety), are held and firmly bound unto
the City of Norwich as Owner, in the penal sum of _____
_____ in lawful money of the United States of America, for the
payment of which sum, well and truly made to the Owner, we bind ourselves, our heirs, successors,
and assigns, jointly and severally, firmly by these presents has herewith submitted a bid for the for
the contract for the _____ *Norwich Public Utilities Stony Brook Water Transmission Main
Rehabilitation – Phase 1* _____ project, bids for which are scheduled to be opened on _____

THE CONDITION OF THIS OBLIGATION is such, that whereas the Principal has herewith
submitted a bid for the contract for the above referenced project

NOW, THEREFORE, if the following conditions are satisfied, this obligation shall become void:

- a) the Principal shall not withdraw its bid within _____ days after the bid opening of the same without the consent of the Owner, and
- b) the Owner shall award said project to the Principal in writing, and
- c) the Principal shall, as required by the Owner pursuant to the bid specifications for the project, execute a contract in writing for the project within the time specified by the Owner, after being notified by the Owner in writing of the award, including all submissions relating to that contract execution as may be required by the bid specifications, to be submitted to the Owner prior to contract execution, and
- d) the Principal shall deliver such surety bond as shall be acceptable to the Owner for the performance of the work according to said written agreement (contract), and shall in all other respects perform the agreement created by the acceptance of said bid.

Otherwise, the Principal and Surety hereto agree to pay unto the Owner the difference between the amount of the bid of said Principal, submitted herewith, and the amount for which the Owner may contract with another party to perform the work covered by the said bid of the Principal.

The Surety executing this instrument hereby agrees that its obligation shall not be impaired by any extension(s) of the time for contract execution that the Principal and Owner may agree to, notice of which extension(s) to the Surety being hereby waived; provided that such waiver of notice shall apply only with respect to extensions aggregating not more than _____ calendar days in addition to the original _____ days allowed for expiration of this bid bond.

IN TESTIMONY WHEREOF, the said Principal and Surety have caused this bond to be signed by their duly-authorized representatives and have caused their names and corporate seals to be affixed on this form on the respective dates of their signatures.

Surety

Principal

Print Surety Name

Print Name

Agent's signature and date. **Enclose a valid
Power of Attorney**

Signature of Authorized Representative and date

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder:

2. Permanent main office address:

3. When organized:

4. If a corporation, where incorporated:

5. How many years have you been engaged in the contracting business under your present firm or trade name?

6. General character of work performed by your company:

7. Have you ever failed to complete any work awarded to you? If so, where and why?

8. Have you ever defaulted on a contract? If so, where and why?

9. List projects similar to this that your organization completed within the last 5 years? The contractor shall attach a summary of such work that identifies:
 - Name of Owner
 - Date of Work
 - Contract Amount
 - Brief Description of Work

10. Experience in construction work similar in importance to this project.

12. Background and experience of the principal members of your organization including the officers.

13. Will you, upon request, fill out a confidential detailed financial statement and furnish any other information that may be required by the OWNER?

14. The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner or representative in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated at _____ this _____ day of _____, 20 ____.

(Name of Bidder)

By _____

Title _____

State of _____)
) ss.
 County of _____)

_____ being duly sworn deposes and says that he is _____
 of _____
 (name of organization)

and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn to before me this _____ day of _____, 20 ____.

Notary Public

My Commission expires _____ 20 ____.

PROPOSED SUBCONTRACTORS

THE BIDDER SHALL STATE THE NAMES OF ALL THE SUBCONTRACTORS THAT HE PROPOSES TO USE. ATTACH ADDITIONAL SHEETS IF NEEDED.

If none, write "None" _____

*Description of Work _____

Proposed Subcontractor, Name _____

Address _____

*Description of Work _____

Proposed Subcontractor, Name _____

Address _____

*Description of Work _____

Proposed Subcontractor, Name _____

Address _____

*Insert description of work and subcontractors' names as may be required.

This is to certify that all names of the above-mentioned subcontractors are submitted with full knowledge and consent of the respective parties.

The Bidder warrants that none of the proposed subcontractors have any conflict of interest as respects this contract.

Bidder _____

(Fill in Name)

By _____

(Signature and Title)

PROPOSED SUPPLIERS

THE BIDDER SHALL STATE THE NAMES OF PROPOSED MATERIAL SUPPLIERS FOR THE PROJECT. ATTACH ADDITIONAL SHEETS IF NEEDED.

If none, write "None" _____

*Description of Material _____

Proposed Supplier, Name _____

Address _____

*Description of Material _____

Proposed Supplier, Name _____

Address _____

*Description of Material _____

Proposed Supplier, Name _____

Address _____

*Insert description of work and suppliers names as may be required.

This is to certify that all names of the above-mentioned suppliers are submitted with full knowledge and consent of the respective parties.

The Bidder warrants that none of the proposed suppliers have any conflict of interest as respects this contract.

Bidder _____

(Fill in Name)

By _____

(Signature and Title)

Clean Water Fund Memorandum (2016-003)

Disadvantaged Business Enterprise (DBE) Subcontractor Participation on Clean Water Fund (CWF) Construction Projects

I. PURPOSE

The municipality, through its Prime Contractor must make specified good faith efforts to attain the DBE goals as specified in this document in Section III. This is an administrative condition of the U.S. Environmental Protection Agency (EPA) Grant which funds Clean Water Fund Projects.

This memorandum supersedes the Clean Water Fund Memorandum Dated June 24, 2014

II. GOVERNING STATUTE OR REGULATION

General Compliance (Federal), 40 CFR, Part 33: The municipality, through its Prime Contractor must comply with the requirements of EPA's Program for Utilization of Small, Minority, and Women's Business Enterprises (MBE/WBE).

III. EPA REQUIREMENTS

The following clause shall be included in all construction contract documents for goods and services to be funded under the CWF:

The requirement for DBE subcontractor participation, expressed as a percentage of the total eligible contract amount, shall be a minimum of 8.0 percent with the following makeup:

MBE 3.0 percent WBE 5.0 percent

Failure to meet or exceed the required percentage or submit acceptable documentation of the six good faith efforts may render a bid non-responsive and may cause the bid to be rejected.

IV. CERTIFICATION

A DBE must be certified at the time that the subcontract for their services is executed. A business that is pending new certification, recertification, or whose certification has expired cannot be counted toward the goals.

In the case where a subcontractor DBE is certified as both a MBE and a WBE:

1. The prime contractor may count the entire value of the subcontract as either a MBE or a WBE.
2. The prime contractor may choose to split the subcontract between the MBE and the WBE categories to fulfill both goals. If the prime contractor chooses this route:
 - a. They must indicate the dollars to be apportioned to the categories either on the face of the copy of the fully executed subcontract submitted to the DEEP or by some other written method.

- b. The certification submitted to DEEP must indicate that the principal of the subcontractor is both a woman and a minority.
- c. For a certification that only identifies the subcontractor as a DBE, additional documentation is required as proof of dual status. In the case of ConnDOT, the detailed information page within their online database suffices as proof.

V. THE SIX GOOD FAITH EFFORTS AS SPECIFICALLY DEFINED BY EPA

The Six Good Faith Efforts are required methods employed by all DEEP Clean Water Fund recipients to ensure that all DBEs have the opportunity to compete for procurements funded by DEEP financial assistance dollars.

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

The Prime Contractor's certification as a DBE has no effect on this requirement. Therefore, if the Prime Contractor is a DBE, the Six Good Faith Efforts defined above must be employed in the procurement of subcontracts to be secured to achieve the MBE 3.0% and WBE 5.0% participation. Also, for subcontracts for material suppliers, only 25% of the dollar value of their contracts may be applied toward the required percentage listed above unless that supplier manufactures those supplies and/or adds specialized input to the process.

VI. ACCEPTABLE CERTIFICATION OPTIONS

1. **Connecticut Department of Administrative Services (DAS)** - DEEP will continue to accept DAS certification until such time as other State entities are identified whose certification processes meet the EPA criteria. DAS will only certify Connecticut based firms that meet the criteria under CGS 4a-60g.
2. **Connecticut Department of Transportation (ConnDOT)** - Companies that desire to do business with ConnDOT as well as the DEEP should seek ConnDOT certification which will be accepted by the DEEP. DBE firms are advised that the certification process can take 90 days to complete. ConnDOT will certify both in state as well as out of state firms.

3. **The Environmental Protection Agency (EPA)** – In the event an entity cannot be certified by ConnDOT as a DBE, that entity should seek certification with EPA. Such entities must provide EPA with evidence from ConnDOT denying certification.
4. **Small Business Administration (SBA-Federal)**-SBA certification is available to companies under the Woman Owned Small Business (WOSB) program and the SBA 8(a) Business Development Program (www.sba.gov/8abd/) which has a net worth ceiling of \$250,000 for initial applicants.
5. **Other states certification**- Prime Contractors and Engineering Consultants may utilize certification from other states. Such certification must specify the DBE designation. Where there is no DBE certification option within a state, the instance must be presented to the DEEP Financial Administrator assigned to the project for consideration on a per case basis.

VII. DBE COMPLIANCE PROCESS

Within fourteen (14) calendar days after bid opening the apparent low bidder shall complete and submit to the municipality the Subcontractor Verification Form provided in the contract documents along with corresponding DBE certification for each subcontractor. The municipality must then submit copies as part of the bid application to DEEP as demonstration of compliance with this memorandum. **Failure to submit these documents by the close of business of the fourteenth calendar day after bid opening may result in the bid being deemed non-responsive and may cause the bid to be rejected.** Two executed copies of the DBE subcontracts must be submitted to the municipality, who must then submit one copy to the DEEP Financial Administrator as demonstration of compliance with this memorandum.

No payment requests will be processed by DEEP until the executed copies of the subcontracts are on file in the DEEP office.

It is understood that the Prime Contractor must make and document the good faith efforts as defined above. Should the contractor not meet the goals, documentation of good faith efforts will be required to be submitted to the DEEP Municipal Facilities Engineer for consideration that the good faith effort was extensive enough to warrant the acceptance of a lower goal for the specific contract in question.

The prime contractor is required to employ the six good faith efforts in that the DBE percentages shall be maintained or exceeded in the event of one subcontractor being substituted for another.

I hereby verify that I have read and understand the DBE requirements in this memorandum and will procure subcontracts whose percentages will meet or exceed the minimums listed above.	
Contract Name _____	
Prime Contractor Company Name _____	
Prime Contractor Authorized Signature _____	Date _____

VIII. DEFINITIONS

CGS: Connecticut General Statutes

ConnDOT: Connecticut Department of Transportation

CWF: Clean Water Fund

DAS: Connecticut Department of Administrative Services

DBE: Disadvantaged Business Enterprise

DEEP: Department of Energy and Environmental Protection

EPA: Environmental Protection Agency (Federal)

MBE: Minority Business Enterprise

SBA: Small Business Administration (Federal)

WBE: Woman Business Enterprise

WOSB: Woman Owned Small Business (Federal program - SBA)

May 25, 2016

Date



Denise Ruzicka, Director
Planning and Standards Division
Bureau of Water Protection and Land Reuse



Disadvantage Business Enterprise (DBE) Subcontractor Verification Form

Prime Contractor Company Name: _____

Contract Name/Number: _____

Contract Award Amount: \$ _____

Note to prime contractor: You are required to complete this form listing each DBE (MBE or WBE) subcontractor to be employed in work eligible for the Drinking Water State Revolving Fund within the table below. Please submit an original of this completed form, along with each subcontractor's current, valid DBE certificate, to the municipality within 14 days of bid opening. In the event that this form is not submitted with the bid application, the bid could be rendered nonresponsive and rejected.

Name of proposed subcontractor/vendor	Type (MBE or WBE)	Type of Product or Service * (see below)	Contact Name, Address, Phone # of Subcontractor or Vendor	Dollar amount of proposed subcontract	Dollar Amount contributing toward MBE/WBE goal†	MBE % of Contract towards goal	WBE % of Contract towards goal
* Type of Product or Service:		1 - Construction	2 - Supplies	3 - Services	4 - Equipment		

† *Supplier is defined as follows: A supplier is a business which acts as a distributor of materials or equipment and which provides a commercially useful function when such activity is traditional in the industry manufacturing the material or equipment supplied. Suppliers will receive 25% credit for providing supplies and receive 100% for manufacturing or fabrication of supply items. Haulers will receive 100% credit if they provide the material that is hauled. Commercially useful function will normally include:*

- 1. Providing Technical Assistance to the purchaser prior to the purchase, during installation and after the supplies or equipment are placed in service;*
- 2. Manufacturing or being first tier below manufacturer of the supplies or equipment supplied;*
- 3. Providing Functions other than just accepting and referring request for supplies or equipment to another party for direct shipment to a contractor.*

The completion and submission of this form does not constitute a contractual agreement between the general contractor and the named subcontractor, but is solely for documenting proposed compliance with DBE participation under the Department of Public Health's (DPH) Drinking Water State Revolving Fund (DWSRF). Should another subcontractor be substituted in place of the firm named above, both the municipality and the DPH (Drinking Water Section – DWSRF Unit, 410 Capitol Ave, MS#51WAT, PO Box 340308, Hartford, CT 06134-0308) should be notified in writing within three (3) business days of the change, and a copy of this form must be completed for the replacement subcontractor. The DBE percentages shall be maintained or exceeded in the event of one subcontractor being substituted for another.

Prime Contractor Authorized Signature: _____ Date: _____

Statutory and Regulatory Authority

- Conn. Agencies Regs. §12-426-18;
- Conn. Gen. Stat. §12-412(1) and (2), the United States, the State of Connecticut, or any political subdivisions or agencies of the State of Connecticut; for example state or municipal schools, universities, police, municipal fire departments, and state or municipal libraries. Only Connecticut state agencies have been issued an exemption number that can be entered on this form;
- Conn. Gen. Stat. §12-412(5), nonprofit charitable hospitals, nonprofit nursing homes, nonprofit rest homes and nonprofit residential care homes; and an acute care, for-profit hospital, in operation as of May 12, 2004;
- Conn. Gen. Stat. §12-412(8), Internal Revenue Code §501(c)(3) or (13) organizations exempt from federal income tax. Only charitable or religious organizations that applied to the Department of Revenue Services (DRS) prior to 7/1/95 were issued a Connecticut exemption permit number that can be entered on this form. Other charitable or religious organizations have not been issued a permit number and will leave that space blank;
- Conn. Gen. Stat. § 12-412(84), for purchases with regard to the Connecticut Technology Park;
- Conn. Gen. Stat. § 12-412(90), water companies;
- Conn. Gen. Stat. § 12-412(92), the Connecticut Resources Recovery Authority;
- Conn. Gen. Stat. § 12-412(93), tourism districts;
- Conn. Gen. Stat. § 12-412(95), solid waste-to-energy facilities;
- Conn. Gen. Stat. §7-273mm, municipal or regional resource recovery authorities; and
- Conn. Gen. Stat. § 16-344, the Metropolitan Transportation Authority or subsidiary in connection with the New Haven commuter railroad service.

Instructions for the Purchaser: Use this certificate for purchases of tangible personal property to be installed or placed in a project being performed under a contract with an exempt entity that will remain in the project after its completion. To qualify for the exemption from sales and use taxes, you must present this certificate to the retailer at the time of the purchase of the qualifying tangible personal property. For at least six years from the date it is issued, keep a copy of this certificate and records that substantiate the information entered on this certificate including records to support the contractor's use of this certificate and to show the disposition of all materials or supplies purchased.

If you are unable to designate the exact amount of materials or supplies to be installed or placed in a project being performed under contract with an exempt entity, you must estimate the amount of the purchases. You will be held strictly accountable for any use tax due the state on the purchases in the event of any use other than the permanent installation or placement of the purchases in the exempt project identified in this certificate.

Contractors are the consumers of all the tools, supplies, and equipment used in fulfilling a construction contract that are not installed or placed in the exempt job even if they are used up during the job.

Instructions for the Seller: Acceptance of this certificate, when properly completed, relieves the seller from the burden of proving that tangible personal property is not subject to sales and use taxes when the tangible personal property will be installed or placed in a project being performed under a contract with an exempt entity and will remain in the project after its completion. The certificate is valid only if taken in good faith from a contractor under contract with an exempt entity. The good faith of the seller will be questioned if the seller knows of, or should know of, facts that suggest the contractor does not intend to install or place the property in a project being performed under contract with an exempt entity.

Keep this certificate and bills or invoices to the purchaser for at least six years from the date of purchase. The bills, invoices, or records covering the purchase made under this certificate must be marked to indicate an exempt purchase was made. The words "Exempt under CERT-141" satisfy the requirement.

This certificate may be used for individual purchases, in which case the box marked "Certificate for One Purchase Only" must be checked. This certificate may also be used for a continuing line of exempt purchases for the project identified in this certificate, in which case the box marked "Blanket Certificate" must be checked. A blanket certificate remains in effect for three years unless the purchaser revokes it in writing before the period expires.

For More Information: Call Taxpayer Services at 1-800-382-9463 (Connecticut calls outside the Greater Hartford calling area only) or 860-297-5962 (from anywhere). **TTY, TDD, and Text Telephone users** only may transmit inquiries anytime by calling 860-297-4911. Visit the DRS website at www.ct.gov/DRS to preview and download forms and publications.

CERTIFICATE AS TO CORPORATE PRINCIPAL

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

(Corporate Seal)

Title: _____

IV. AGREEMENT AND BOND FORMS



Norwich Public Utilities

16 South Golden Street
Norwich, CT 06360

Phone: (860)887-2555
Fax: (860)823-4172

CONTRACT FOR SERVICES

THIS AGREEMENT made and entered into this ____ day of _____, by and between (Contractor, Address), hereinafter called "**Contractor**", and Norwich Public Utilities, 16 South Golden Street, Norwich, CT 06360, hereinafter called "**NPU**."

WHEREAS, NPU desires to enter into a contract for services, and the Contractor represents itself as competent and qualified to accomplish the specific requirements of this contract to the satisfaction of NPU, therefore this contract is entered into under the following terms and conditions:

1. The Contractor agrees to perform the services described below or in attachments if applicable. (Attachments must be specifically labeled; for example, "Attachment A, consisting of _____ pages, attached hereto and made a part hereof," and be initialed by authorized representatives of both parties.) Only those attachments specifically referenced in this Contract for Services shall apply. The terms and conditions as contained in this Contract for Services shall take precedence over any conflicting terms as may be attached hereto.

2. **Term of the Contract:** The start date for this Contract shall be _____ and the completion date of this Contract shall be _____.

3. **Contract Price:** NPU shall pay the Contractor for the performance of the Contract the total of \$_____.

4. **Liquidated Damages:** In the event the Contractor fails to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Contract Documents, liquidated damages shall be paid to Norwich Public Utilities in the amount of **\$500.00** per calendar day.

5. **Contract Documents:** The Contract Documents consist of this Agreement, the Standard Bid and Contract Terms and Conditions, the Instructions to Bidders, the Contractor's bid as accepted by NPU, the General and Special Conditions of the Work, the Technical Specifications, the drawings and all Addenda attached hereto.

The Contract Documents are complementary and what is called for by any one shall be as binding as if called for by all. In the event of any conflict or inconsistency between the provisions of this Agreement and the provisions of any of the other Contract Documents, the provisions of this Agreement shall prevail.

Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the edition of the standard specification, manual, code or laws or regulations identified in the reference. In the event a particular edition is not identified, the reference shall mean the latest edition in effect at the time of receipt of the bid. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of NPU, the Contractor or any of their consultants, agents or employees from those set forth in the Contract Documents.

6. **Obligations And Liability Of The Contractor:** The Contractor shall, as herein specified, do all the work and perform and furnish all the labor, services, materials, equipment, plant, machinery, apparatus, appliances, tools, supplies

and all other things (except as otherwise expressly provided herein) necessary for the proper performance and completion of the work in the manner and within the time hereinafter specified, in strict accordance with the Drawings, Specifications and other Contract Documents, in conformity with the directions and to the satisfaction of NPU, and at the prices herein agreed upon therefor.

All parts of the work and all fixtures, equipment, apparatus and other items indicated on the Drawings and not mentioned in the Specifications, or vice versa, and all work and material usual and necessary to make the work complete in all its parts, including all incidental work necessary to make it complete and satisfactory and ready for use and operation, whether or not it is indicated on the Drawings or mentioned in the Specifications, shall be furnished and executed the same as if it is called for both by the Drawings and by the Specifications.

The Contractor shall coordinate its operations with those of any other contractors who may be employed on other work of NPU, shall avoid interference therewith, and shall cooperate in the arrangements for storage of materials and equipment.

The Contractor shall conduct its work so as to interfere as little as possible with private business and public travel. Wherever and whenever necessary or required it shall maintain fences, furnish watchmen, maintain lights, and take such other precaution as may be necessary to protect life and property.

The Contractor shall indemnify and save harmless NPU and its officers, agents, servants and employees, from and against any and all claims, demands, suits, proceedings, liabilities, judgments, awards, losses, damages, costs and expenses, including attorneys' fees, on account of bodily injury, sickness, disease or death sustained by any person or persons or injury or damage to or destruction of any property, directly or indirectly arising out of, relating to or in connection with the work, whether or not due to or claimed to be due in whole or in part to the active, passive or concurrent negligence or fault of the Contractor, its officers, agents, servants or employees, any of its subcontractors, NPU or any of their respective officers, agents, servants or employees and/or any other person or persons, and whether or not such claims, demands, suits or proceedings are just, unjust, groundless, false or fraudulent; and the Contractor shall and does hereby assume and agrees to pay for the defense of all such claims, demands, suits and proceedings, provided, however, that the Contractor shall not be required to indemnify NPU, its officers, agents, servants, or employees, against any such damages occasioned solely by acts or omissions of NPU other than supervisory acts or omissions of NPU in the work.

The Contractor shall have complete responsibility for the work and the protection thereof, and for preventing injuries to persons and damage to the work and property and utilities on or about the work, until final completion and final acceptance thereof. It shall in no way be relieved of its responsibility by any right of NPU to give permission or directions relating to any part of the work, by any such permission or directions given, or by failure of NPU to give such permission or directions. The Contractor shall bear all costs, expenses, losses and damages on account of the quantity or character of the work or the nature of the land (including but not limited to subsurface conditions) in or under or on which the work is done being different from that indicated or shown in the Contract Documents or from what was estimated or expected, or on account of the weather, elements, or other causes.

The Contractor shall conduct its operations so as not to damage existing structures or work installed either by it or by other contractors. In case of any such damage resulting from its operations, it shall repair and make good as new the damaged portions at its own expense with the consent of the damaged party. In the event that consent is not given, the Contractor shall continue liable for the damage caused.

The Contractor shall be as fully responsible to NPU for the acts and omissions of its subcontractors, their officers, agents, servants and employees as it is for its own acts and omissions and those of its own officers, agents, servants and employees.

Should the Contractor sustain any loss, damage or delay through any act or omission of any other contractor or any subcontractor of any such other contractor, the Contractor shall have no claim against NPU therefor, other than for an extension of time, but shall have recourse solely to such other contractor or subcontractor.

If any other contractor or any subcontractor of any such other contractor shall suffer or claim to have suffered loss, damage or delay by reason of the acts or omissions of the Contractor or of any of its subcontractors, the Contractor agrees to assume the defense against any such claim and to reimburse such other contractor or subcontractor for such loss or damage.

The Contractor agrees to and does hereby indemnify and save harmless NPU from and against any and all claims by such other contractors or subcontractors alleging such loss, damage or delay and from and against any and all claims, demands, suits, proceedings, liabilities, judgments, awards, losses, damages, costs and expenses, including attorneys' fees, arising out of, relating to or resulting from such claims.

The Contractor shall promptly pay all federal, state and local taxes which may be assessed against it in connection with the work or its operations under this Agreement and/or the other Contract Documents, including, but not limited to, taxes attributable to the purchase of material and equipment, to the performance of services, and the employment of persons in the prosecution of the Work.

7. Supervision of Work: The Contractor shall be solely responsible for supervision of the work, shall give the work the constant attention necessary to ensure the expeditious and orderly progress thereof, and shall cooperate with NPU, its officers, agents or employees in every possible way.

At all times, the Contractor shall have as its agent on the work a competent superintendent capable of reading and thoroughly understanding the Drawings and Specifications, with full authority to execute the directions of the Engineer without delay and to supply promptly such labor, services, materials, equipment, plant, apparatus, appliances, tools, supplies and other items as may be required. Such superintendent shall not be removed from the work without the prior written consent of NPU. If, in the opinion of NPU, the superintendent or any successor proves incompetent, the Contractor shall replace him with another person approved by NPU; such approval, however, shall in no way relieve or diminish the Contractor's responsibility for supervision of the Work.

Whenever the Contractor or its agent or superintendent is not present on any part of the work where it may be necessary to give directions or instructions with respect to such work, such directions or instructions may be given by NPU to and shall be received and obeyed by the foreman or any other person in charge of the particular work involved.

8. Insurance: The Contractor shall procure and maintain insurance of the types specified below, and to the limits for this insurance specified in the Standard Bid and Contract Terms and Conditions and City of Norwich Code of Ordinances. All insurance shall be obtained from companies satisfactory to NPU.

Insurance shall be in such forms as will protect the Contractor from all claims and liability for damages for bodily and personal injury, including accidental death, and for property damage, which may arise from operations under the Contract, whether such operations be by itself, its subcontractors, or by anyone directly or indirectly employed or engaged by it.

The following types of insurance shall be provided before starting and until final completion and acceptance of the Work and expiration of the guarantee period provided for in the Agreement.

- a. Workmen's Compensation and Employer's Liability Insurance.
- b. Bodily Injury Insurance for operations and completed operations and Contractor's Protective Bodily Injury Insurance.
- c. Property Damage Insurance for operations and completed operations and Contractor's Protective Property Damage Insurance, each including coverage for injury to or destruction of wires or pipes and similar property and appurtenant apparatus and the collapse of or structural injury to any building or structure except those on which work under the Contract is being done. Blasting and explosion coverage shall be obtained if there is a need for blasting under the Contract, and no blasting shall be performed until such insurance has been secured.
- d. Bodily Injury Insurance covering the operation of all motor vehicles owned by the Contractor.
- e. Personal Injury Insurance to cover claims for personal injury and including claims brought by employees.
- f. Property Damage Insurance covering the operation of all motor vehicles owned by the Contractor.
- g. Insurance to cover bodily injuries and property damage resulting from the use of motor vehicles not owned by the Contractor, while such vehicles are being operated in connection with the prosecution of the work.

- h. Contractual Liability Insurance covering the liability assumed by the Contractor under the fifth paragraph of that subsection titled "Obligations and Liability of Contractor" of this Agreement.
- i. Owner's Protective Liability and Property Damage Insurance to protect NPU and any Engineer against claims for Property damage and for bodily injuries, including accidental death, caused by the operations of the Contractor or its subcontractors on the Work. The policy shall indicate NPU and any Engineer as the named insured. A copy of the policy shall be furnished to NPU and a Certificate of Insurance shall be furnished to any Engineer.

All policies shall be so written that NPU will be notified in writing of cancellation or restrictive amendment at least 30 days prior to the effective date of such cancellation or amendment.

Certificates from the Contractor's insurance carriers stating the coverages provided, the limits of liability, and expiration dates shall be filed in triplicate with the Engineer before operations are begun. Such certificates shall be on the form furnished by the Engineer.

Renewal certificates must be furnished by the Contractor prior to the expiration date of any of the initial insurances.

No insurance required or furnished hereunder shall in any way relieve the Contractor of or diminish any of its responsibilities, obligations and liabilities under the Contract.

9. Contract: This Agreement, which includes all the Contract Document elements listed in paragraph 1 above, forms the Contract between the parties identified in the heading of this document. In the event that any provision of the Contract conflicts with any other provision of this Contract, the decision of NPU will be final.

10. Funding and Fiscal Year Appropriations: Appropriations for expenditures by NPU and authorization to spend for a particular purpose are ordinarily made on a fiscal year basis. The fiscal year of NPU is the twelve (12) month period ending June 30 of each year. The obligations of NPU under this Contract for the present or any subsequent fiscal year following the fiscal year in which this Contract is executed are subject to the appropriation of funds sufficient to discharge NPU's obligation, which accrues in this or any subsequent fiscal year. In the absence of such appropriation or authorization, this Contract shall be terminated immediately upon the Contractor's receipt of notice to said effect without liability for damages, penalties or other charges arising from early termination. Expenditures for contracted services that will extend beyond a single fiscal year shall not exceed in any fiscal year the amount appropriated and authorized for said fiscal year. The Contractor's yearly costs, as contained herein, may not exceed the amount appropriated for said year.

11. Termination: The Contract may be terminated without cause by either party by giving written notice to the other at least thirty (30) calendar days prior to the effective date of termination stated in the notice. If Contractor fails to fulfill its obligations, NPU may terminate this Contract by giving written notice to the Contractor at least seven (7) calendar days before the effective date of termination stated in the notice. The notice shall state the circumstances of the alleged breach and may state a period during which the alleged breach may be cured, which cure shall be subject to approval by NPU.

12. Obligations in Event of Termination:

A. Upon termination, all finished or unfinished documents, data, studies, and reports prepared by the Contractor pursuant to this Contract, shall become the property of NPU.

B. NPU shall promptly pay the Contractor for all services performed to the effective date of termination, subject to indemnification provisions of Paragraph 5 hereof and subject to offset of sums due the Contractor against sums owed by the Contractor to NPU.

13. Record keeping, Audit, and Inspection of Records: The Contractor shall maintain books, records and other compilations of data pertaining to the requirements of the Contract to the extent and in such detail as shall properly substantiate claims for payment under the Contract. All such records shall be kept for a period of six (6) years or for such longer period as is specified herein. All retention periods start on the first day after final payment under this Contract. If any litigation, claim, negotiation, audit or other action involving the records is commenced prior to the expiration of the applicable retention period, all records shall be retained until completion of the action and resolution of all issues resulting

therefrom, or until the end of the applicable retention period, whichever is later. The Federal grantor agency, the State Auditor, NPU, or any of their duly authorized representatives or designees shall have the right at reasonable times and upon reasonable notice, to examine and copy, at reasonable expense, the books, records, and other compilations of data of the Contractor which pertain to the provisions and requirements of this Contract. Such access shall include on-site audits, review, and copying of records.

14. Public, Publication, Reproduction and Use of Contract Products or Materials: Unless provided otherwise by law or NPU, title and possession of all data, reports, programs, software, equipment, furnishings, and any other documentation or product paid for with NPU funds shall vest with NPU at the termination of the Contract. The Contractor shall at all times obtain the prior written approval of NPU before it, any of its officers, agents, employees or subcontractors, either during or after termination of the Contract, makes any statement bearing on the work performed or data collected under this Contract to the press or issues any material for publication through any medium of communication. If the Contractor, or any of its subcontractors, publishes a work dealing with any aspect of performance under the Contract, or of the results and accomplishments attained in such performance, NPU shall have a royalty-free non-exclusive and irrevocable license to reproduce, publish or otherwise use and to authorize others to use the publication. The Contractor shall use reasonable means to inform the public that NPU provides financial support for its operations and services by explicitly stating on publicity NPU material, stationery, posters and other written materials, and on its premises the following: "This program is supported in part (in full) by NPU."

15. Assignment by Contractor and Subcontracting: The Contractor shall not assign or in any way transfer any interest in this Contract without the prior written consent of NPU, nor shall it subcontract any services without the prior written approval of NPU.

16. Connecticut Law: It is agreed that this contract shall be governed by, construed, and enforced in accordance with the internal laws of the State of Connecticut.

17. Venue: In the event of litigation, the parties do agree to be contractually bound to submit themselves to the personal jurisdiction of the state courts of Connecticut. The venue for any court proceeding shall be in the Superior Court for the Judicial District for Norwich at Norwich, Connecticut.

18. Waiver of Jury Trial: CONTRACTOR HEREBY EXPRESSLY WAIVES ANY AND ALL RIGHTS IT MAY HAVE TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION OR CAUSE OF ACTION (1) ARISING UNDER THIS AGREEMENT OR ANY OTHER INSTRUMENT, DOCUMENT OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HERewith, OR (2) IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES HERETO OR ANY OF THEM WITH RESPECT TO THIS AGREEMENT OR ANY OTHER INSTRUMENT, DOCUMENT OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HERewith, OR THE TRANSACTIONS RELATED HERETO OR THERETO, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER SOUNDING IN CONTRACT OR TORT OR OTHERWISE; AND CONTRACTOR HEREBY AGREES AND CONSENTS THAT ANY SUCH CLAIM, DEMAND, ACTION OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT A JURY, AND NPU MAY FILE AN ORIGINAL COUNTERPART OR A COPY OF THIS SECTION WITH ANY COURT AS WRITTEN EVIDENCE OF CONTRACTOR'S CONSENT TO THE WAIVER OF ITS RIGHT TO TRIAL BY JURY.

19. Nondiscrimination and affirmative action provisions, nondiscrimination provisions regarding sexual orientation, Executive Order Number Three and guidelines and rules, Executive Order Number Seventeen, Executive Order Number Sixteen and sexual harassment policy:

For the purposes of this article, the word "contractor" is substituted for and has the same meaning and effect as if it read "Contractor's name." Section A of this article is inserted in connection with subsection (a) of § 4a-60 of the General Statutes of Connecticut, as revised. Section E of this article is inserted in connection with subsection (a) of § 4a-60a of the General Statutes of Connecticut, as revised.

- A. (1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, sexual orientation, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, or in any manner prohibited by the laws of the United States or of the State of Connecticut. The contractor further agrees

to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, sexual orientation, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, or in any manner prohibited by the laws of the United States or of the State of Connecticut; (2) the contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission; (3) the contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the contractor agrees to comply with each provision of this section and Conn. Gen. Stat. §§ 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to Conn. Gen. Stat. §§ 46a-56, 46a-68e, 46a-68f and 46a-86; (5) the contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records, and accounts concerning the employment practices and procedures of the contractor as they relate to the provisions of this section and Conn. Gen. Stat. § 46a-56.

- B. Any contractor who is party to a municipal public works contract or quasi-public agency project, where any such contract is valued at less than \$50,000 for each year of the contract, shall provide the Commission on Human Rights and Opportunities with a written or electronic representation that complies with the nondiscrimination agreement and warranty under subsection (A)(1) above, provided if there is any change in such representation, the contractor shall provide the updated representation to the Commission not later than 30 days after such change. Any contractor who is party to a municipal public works contract or a quasi-public agency project where any such contract is valued at \$50,000 or more for any year of the contract, shall provide the Commission with any one of the following: (1) Documentation in the form of a company or corporate policy adopted by resolution of the board of directors, shareholders, managers, members or other governing body of such contractor that it complies with the nondiscrimination agreement and warranty under subsection (A)(1) above; (2) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (a) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and the executive director of the Commission on Human Rights and Opportunities or designee certifies that the prior resolution complies with the nondiscrimination agreement and warranty under subdivision (A)(1) above; or (3) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (A)(1) above and is in effect on the date the affidavit is signed.
- C. (1) If the contract is a municipal public works contract or a quasi-public agency project, the Contractor agrees and warrants that s/he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project. The contractor shall include the provisions of subdivision (A)(1) above in every subcontract or purchase order entered into to fulfill any obligation of a public works contract or contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or manufacturer, unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance in accordance with Conn. Gen. Stat. §46a-56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission regarding a state contract, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter; (2) Determination of the contractor's good faith efforts shall include, but shall not be limited to, the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects; (3) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts; (4) The contractor agrees to comply with the regulations referred to in this section as they exist on the date of this contract and as they may be adopted or amended from time to time during the term of this contract and any amendments thereto.

D. "Minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise and (3) who are members of a minority, as such term is defined in subsection (a) of Conn. Gen. Stat. §32-9n; and "good faith" means the degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements. Determination of the contractor's good faith efforts shall include, but shall not be limited to, the following factors: The contractor's employment and subcontracting policies; affirmative advertising recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in municipal public works contracts or quasi-public agency projects. "Municipal public works project" means that portion of an agreement entered into on or after October 1, 2015, between any individual, form of corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of an alliance district, as defined in Conn. Gen. Stat. §10-262u, financed by state funding in an amount equal to fifty thousand dollars or less. "Quasi-public agency project" means the construction, rehabilitation, conversion, extension, demolition or repair of a building or other changes or improvements in real property pursuant to a contract entered into on or after October 1, 2015, which is financed in whole or in part by a quasi-public agency using state funds, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

E. This contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill promulgated June 16, 1971, and, as such, this contract may be cancelled, terminated, or suspended by the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Three, or any State or federal law concerning nondiscrimination, notwithstanding that the State Labor Commissioner is not a party to this contract. The parties to this contract, as part of the consideration hereof, agree that said Executive Order No. Three is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the State Labor Commissioner shall have continuing jurisdiction in respect to contract performance in regard to nondiscrimination, until the contract is completed or terminated prior to completion.

The contractor agrees, as part consideration hereof, that this contract is subject to the Guidelines and Rules issued by the State Labor Commissioner to implement Executive Order No. Three, and that it will not discriminate in its employment practices or policies, will file all reports as required, and will fully cooperate with the State of Connecticut and the State Labor Commissioner.

F. This contract is subject to the provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15, 1973, and, as such, this contract may be cancelled, terminated, or suspended by the contracting agency or the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Seventeen, notwithstanding that the State Labor Commissioner may not be a party to this contract. The parties to this contract, as part of the consideration hereof, agree that Executive Order No. Seventeen is incorporated herein by reference and made a part hereof. The parties agree to abide by said Executive Order and agree that the contracting agency and the State Labor Commissioner shall have joint and several continuing jurisdiction in respect to contract performance in regard to listing all employment openings with the Connecticut State Employment Service.

G. This contract is subject to the provisions of Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, and, as such, the contract may be canceled, terminated, or suspended by the State for violation of or noncompliance with said Executive Order No. Sixteen. The parties to this contract, as part of the consideration hereof, agree that Executive Order No. Sixteen is incorporated herein by reference and made a part hereof. The parties agree to comply with such executive order. In addition, the contractor agrees to include a copy of Executive Order No. Sixteen and the requirement to comply with said executive order, in all contracts with its contractors, subcontractors, consultants, sub-consultants, and vendors.

H. This contract is subject to the provisions of City of Norwich Sexual Harassment Policy ("Policy") and, as such, the contract may be canceled, terminated, or suspended by NPU in the event that the contractor, its employees, contractors, subcontractors, consultants, sub-consultants, or vendors engages in behavior prohibited by the provisions of the Policy (a copy of the Policy is attached hereto). The contractor agrees to include a copy of the Policy, and the requirement to prevent behavior as defined in such Policy, in all contracts with its contractors, subcontractors, consultants, sub-consultants, and vendors.

20. Force Majeure: Neither party shall be liable to the other or be deemed to be in breach of this Contract for any failure or delay in rendering performance arising out of causes beyond its reasonable control and without its fault or negligence. Such causes may include, but are not limited to, acts of God or of a public enemy, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or unusually severe weather. Dates or times of performance shall be extended to the extent of delays excused by this section, provided that the party whose performance is affected notifies the other promptly of the existence and nature of such delay.

21. Compliance with Laws and Indemnification of NPU of Norwich: The Contractor shall comply with all applicable laws, rules, regulations, ordinances, orders or requirements of the State of Connecticut and any governmental authority relating to the delivery of the services specified in this Contract. NPU may require the Contractor to pay fines, penalties, and damages that may arise out of or may be imposed because of, the Contractor's breach or failure to comply with the provisions of this Contract. Unless otherwise provided by law the Contractor shall indemnify and hold harmless NPU, its agents, officers and employees against any and all liability, loss, damages, penalties, costs or expenses for personal injury or damage to real or tangible personal property which NPU may sustain, incur or be required to pay resulting from, arising out of, or in connection with the services performed or delivered under this Contract by reason of acts, inactions, omissions, negligence, reckless or intentional misconduct of the Contractor, its agent(s), officers, employees or subcontractors; provided that the Contractor is notified of any claim within a reasonable time after NPU becomes aware of it, and the Contractor is afforded an opportunity to participate in the defense of such claim. In such event, no negotiated settlement agreement shall be binding on the Contractor without the Contractor's concurrence.

22. Waivers and Severability: All conditions, covenants, duties and obligations contained in this Contract can be waived only by written agreement. Forbearance or indulgence in any form or manner by a party shall not be construed as a waiver, nor in any way limit the legal or equitable remedies available to that party. A waiver or breach of any term, condition, or covenant by a party shall not constitute a waiver or breach of any other term, condition or covenant. If any court of competent jurisdiction declares a provision of this Agreement invalid, illegal, or otherwise unenforceable, the remaining provisions of the Agreement shall remain in full force and effect.

23. Amendments: No amendment to this Contract shall be effective unless it is signed by authorized representatives of both parties and complies with all other regulations and requirements of law.

24. Entire Agreement: The parties understand and agree that this Contract and attachments (if any), which includes all Contract Documents, supersede all other verbal and written agreements and negotiations by the parties relating to the services under this Contract.

25. Notice: Unless otherwise specified in an attachment hereto, any notice hereunder shall be in writing addressed to the persons and addresses indicated on the first page of this Contract.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed in two (2) original copies on the day and year first above written.

Norwich Public Utilities:

CONTRACTOR:

John Bilda
Its General Manager

Its Duly Authorized Agent

Date _____

Date _____

CERTIFICATION

I, the undersigned, _____, the duly authorized and acting legal representative of the City of Norwich, do hereby certify as follows:

I have examined the above contract(s) and surety bonds and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with terms, conditions and provisions thereof.

Date: _____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____
(Name of Contractor)
_____ a _____
(Corporation, Partnership, or Individual)
hereinafter called "Principal" and _____
(Surety)
of, _____ State of _____ hereinafter called the
"Surety", are held and firmly bound into of _____ of
(Owner)
_____, hereinafter called "Owner", in the penal sum of
(City and State)

_____ Dollars

(\$ _____) in lawful money of the United States, for the payment made, we bind ourselves, and successors, jointly presents of which sum well and truly to be our heirs, executors, administrators 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:

Norwich Public Utilities
Stony Brook Transmission Main Renewal

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 if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder of 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 of 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 six (6) counterparts, each one of which shall be deemed an original, this the ____ day of _____, 20__.

ATTEST:

(Principal) Secretary
(SEAL)

Witness as to Principal

(Address-Zip Code)

Principal
By _____ (s)

(Address-Zip Code)

Surety

ATTEST:

(Surety) Secretary
(SEAL)

Witness as to Surety

(Address-Zip Code)

By _____
Attorney-in-Fact

(Address-Zip Code)

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

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____
(Name of Contractor)
_____ a _____
(Corporation, Partnership, or Individual)
hereinafter called "Principal" and _____
(Surety)
of, _____ State of _____ hereinafter called the
"Surety", are held and firmly bound into of _____ of
(Owner)
_____, hereinafter called "Owner", in the penal sum of
(City and State)

_____ Dollars

(\$ _____) in lawful money of the United States, for the payment made, we bind ourselves, and successors, jointly presents of which sum well and truly to be our heirs, executors, administrators 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:

Norwich Public Utilities
Stony Brook Transmission Main Renewal

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 if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder of 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 of 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 six (6) counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20__.

ATTEST:

(Principal) Secretary
(SEAL)

Witness as to Principal

(Address-Zip Code)

Principal
By _____ (s)

(Address-Zip Code)

Surety

ATTEST:

(Surety) Secretary
(SEAL)

Witness as to Surety

(Address-Zip Code)

By _____
Attorney-in-Fact

(Address-Zip Code)

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

**V. STANDARD GENERAL CONDITIONS OF THE
CONSTRUCTION CONTRACT**

(EJCDC C-700)

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www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
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Associated General Contractors of America
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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.

VI. SUPPLEMENTARY CONDITIONS

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. C-700, 2007 Edition) and other provisions of the Contract Documents as indicated below. All provisions that are not so amended or supplemented remain in full force and effect. The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

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APPENDIX A – CTDOT DETERMINATION

APPENDIX B – INLAND WETLANDS PERMITS

SC-1.01.A.3 - Application for Payment

Add the following language to the end of Paragraph 1.01.A.3:

The Application for Payment form to be used on this Project is EJCDC No. C-620 or AIA Document G720. The Owner must approve all Applications for Payment before payment is made.

SC-1.01.A.9 - Change Order

Add the following language to the end of Paragraph 1.01.A.9:

The Change Order form to be used on this Project is EJCDC No. C-941 or a form provided by or otherwise acceptable to the Owner. Owner's approval is required before Change Orders are effective.

SC-2.03.A - Commencement of Contract Times; Notice to Proceed

Delete Paragraphs 2.03.A in its entirety and insert the following:

- 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.

SC-3.03.B - Resolving Discrepancies

Add the following new paragraphs immediately after Paragraph 3.03.B.1:

2. Should a discrepancy arise between the Standard General Conditions of the Construction Contract and the Regulations of Connecticut State Agencies (RCSA) sections included in these Specifications, provisions of the Regulations of Connecticut State Agencies (RCSA) shall take precedence.

SC-4.02 - Subsurface and Physical Conditions

Add the following new paragraphs immediately after Paragraph 4.02.B:

- C. In the preparation of Drawings and Specifications, Engineer relied upon the following reports of exploration and tests of subsurface conditions at the Site:
 1. The attached soil borings.

SC-4.06 - Hazardous Environmental Condition at Site

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

- A. No reports or drawings of Hazardous Environmental Conditions at or contiguous to the Site are known to the Owner or Engineer.
- B. Not used.

SC-4.07 - Archaeological Finds

Add the following new section immediate after Paragraph 4.06.I:

4.07 *Archeological Finds / Significantly Important Archeological Resources*

- A. For the Contractor's information, the Engineers have no information suggesting that the Project sites are of archeological significance.
- B. Should the Contractor or Engineer discover evidence of remains, such as stone masonry building foundations, bones or other items of archaeological significance, Contractor shall report these findings to 1. Owner, 2. Local Historical Society, 3. State Historic Preservation Office (860) 256-2761, and 4. Resident Engineer or Inspector, and shall exercise the utmost care to ensure that these areas remain undisturbed. Contractor shall allow recovery of such finds by the authorities, shall not remove such artifacts under penalty of law, and shall prevent constriction or private vehicles from crossing over these areas. In addition, when directed by the Engineer, cover these areas with 1-ft common fill to the limits directed by the Engineer. Be advised that graves and any associated human remains are protected by Connecticut State law (C.G.S. Section 10-388 and 10-390). Any possible human skeletal remains must be reported to the State Archaeologist (860) 486-5248 and the State's Chief Medical Examiner (860) 679-3980 immediately upon discovery. If the State Archaeologist is unavailable, please contact the State Historic Preservation Office at the number above for immediate assistance.

SC-5.01 - Performance, Payment, and other Bonds

Add the following new paragraph immediately after Paragraph 5.01.C:

- C. 100% Performance and Payment bonds are required of the successful bidder. This bond shall cover all aspects of the specification and shall be delivered to the Purchasing Agent prior to the issuance of a purchase order. Bonds must meet the following requirements: Corporation - must be signed by an official of the corporation above their official title and the corporate seal must be affixed over the signature; Firm or Partnership - must be signed by all the partners and indicate they are "doing business as"; Individual - must be signed by the owner and indicated as "Owner". The surety company executing the bond or countersigning must be licensed in Connecticut and an official of the surety company must sign the bond with the corporate seal affixed over their signature. Signatures of two witnesses for both the principal and the surety must appear on the bond. Power of attorney for the official signing the bond for the surety company must be submitted with the bond. Also required of the successful bidder is a Performance Bond in the amount of \$3,000 payable to the Town of Bozrah to ensure compliance with the requirements of the Inlands Wetland Permit issued by the Town of Bozrah Inland Wetlands Commission. The Performance and Payment Bonds will be returned upon completion and acceptance of the job.

SC-5.04 - Contractor's Liability Insurance

Add the following new paragraph immediately after Paragraph 5.04.B:

- C. Contractor/Vendor will agree to maintain in force at all times during which work/services are to be performed, the following minimum limits of insurance coverage. The insurance company(ies) must be licensed with the State of Connecticut and have a Financial Strength Rating of "A-" or higher and a Financial Size Rating of VIII or higher from A.M. Best Company. The limits of liability for insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:
1. Workers' Compensation, Employers' Liability and related coverages under Paragraphs 5.04.A.1 and A.2 of the General Conditions:
 - a. State: Statutory
 - b. Voluntary Compensation Same as State Workers' Compensation
(by any exempt entities)
 - c. Employer's Liability \$1,000,000 Each Accident
\$1,000,000 Disease, Policy Limit
\$1,000,000 Disease, Each Employee
 - d. The policy must contain a waiver of subrogation in favor of the City of Norwich, executed by the insurance company.
 2. Contractor's Comprehensive & General Liability under Paragraphs 5.04.A.3 through A.6 (Including Premises-Operations; Independent Contractors' Protective; Products and Completed Operations; Broad Form Property Damage) of the General Conditions which shall include completed operations and product liability coverage and eliminate the exclusion with respect to property under the care, custody, and control of the Contractor:
 - a. Bodily Injury:
\$1,000,000 Each Occurrence
\$2,000,000 Aggregate
 - b. Property Damage:
\$1,000,000 Each Occurrence
\$2,000,000 Aggregate
 - c. Property Damage Liability Insurance shall include coverage for the following hazards:
 X X (Explosion), X C (Collapse), X U (Underground)
 - d. Contractual Liability (Hold Harmless Coverage) or included in Commercial General Liability Coverage:
 - (1) Bodily Injury:
\$1,000,000 Each Occurrence
 - (2) Property Damage:

\$1,000,000 Each Occurrence
\$2,000,000 Aggregate

- e. Personal Injury, (with Employment Exclusion deleted if applicable):
\$2,000,000 Aggregate
 - f. If General Liability policy includes a General Aggregate, such General Aggregate shall not be less than \$2,000,000. Policy shall be endorsed to have General Aggregate apply to this Project only.
3. Comprehensive Automobile Liability (owned, non-owned, hired) under Paragraph 5.04.A.6 of the General Conditions:
- a. Bodily Injury:

Each Person	\$ 1,000,000
Each Accident	\$ 1,000,000
 - b. Property Damage:

Each Accident	\$ 1,000,000
---------------	--------------
 - c. Combined Single Limit of \$ 1,000,000
4. The Contractual Liability coverage required by paragraph 5.04.B.3 of the General Conditions shall provide coverage for not less than the following amounts:
- a. Bodily Injury:

Each Person	\$ 2,000,000
Each Accident	\$ 2,000,000
 - b. Property Damage:

Each Accident	\$ 2,000,000
Annual Aggregate	\$ 2,000,000
5. Umbrella Excess Liability or \$5,000,000 excess which would not require a retention.
\$5,000,000 Over Primary Insurance
\$10,000 Retention
6. Employer's liability insurance.
\$100,000 each accident
\$500,000 disease – policy limit, \$100,000 each employee
7. Fire and Special Extended Coverage in Builder's Risk policy in the amount of 100% of insurable completed value.
8. The Contractor shall purchase and maintain a separate Owner's Protective Liability policy, issued to Owner at the expense of Contractor, including Owner and Engineer as named insured. This insurance shall provide coverage for not less than the following amounts:
- a. Bodily Injury

	\$1,000,000 Each Occurrence
	\$2,000,000 Annual Aggregate

- | | |
|---|------------------------------|
| b. Property Damage including | \$1,000,000 Each Occurrence |
| Explosion Collapse and Under-ground coverage. | \$2,000,000 Annual Aggregate |
9. The Contractor shall purchase and maintain, until final payment, property insurance upon the Work at the site in an amount equal to the total bid price for the completed construction. This insurance shall include the interests of Owner, Contractor, Subcontractors, Engineer and Engineer's consultants in the Work, shall insure against the perils of fire and extended coverage, shall include "all risk" insurance for physical loss and damage including theft, vandalism, and malicious mischief, collapse and water damage, and shall include damages, losses and expenses rising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers, architects, attorneys and other professionals). This insurance shall be provided on the completed value form. If not covered under the "all risk" insurance or otherwise provided in these General Conditions, Contractor shall purchase and maintain similar property insurance on portion of the Work stored on and off the site or in transit when such portions of the Work are to be included in an Application for Payment.
10. **The Engineer and the Owner shall be listed as additional insured.**
11. If subcontractors are employed, same limits as named above shall apply and the certificate of insurance must be filed with the Owner.
12. No contract shall be binding upon the Owner until such bond shall have been given and until Comprehensive General Liability, Comprehensive General Auto Liability and Workmen's Compensation policy certificates indicated-above have been filed with the Owner and approved as to form and sufficiency by the Owner. The insurance policy certificate provided by the successful bidder and all subcontractors-shall carry a statement by the insurance company that the Owner will receive at least ten (10) days' notice prior to cancellation of any portion of the policies or any modifications in the insurance coverage that may affect the Owner's interest. The cost of all insurance coverage shall be included in the price of the contract cost.
13. Certificates of Insurance documenting the coverage listed above must be presented to The Owner prior to the commencing of any work/service. The Contractor/Vendor also agrees to provide replacement and/or renewal certificates at least 30 days prior to the expiration of each policy.
14. If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years following the completion date of the work/service. If the claims-made policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for two (2) years from the completion date.

15. Contractors shall observe and comply with all Federal, State and local laws, ordinances and regulations. Contractors shall indemnify and save harmless the Town, all of its officers, agents and servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation or negligence whether by the bidder, his employees, his consultant and/or their employees.

SC-6.05.C - Substitutes and ‘Or Equals’, Engineer’s Evaluation

Amend the paragraph by making two subparagraphs under the title C. Engineer’s Evaluation. The paragraph text is retitled, 6.05.C.2 After Effective Date of Agreement. A new paragraph is added before this paragraph to read as follows:

1. During Bidding. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or “or-equal” materials and equipment as defined in paragraph 6.05 of the General Conditions, or those substitute materials and equipment approved by the Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function, and quality to be met by any proposed substitute or “or-equal” item. Request for Engineer’s clarification of materials and equipment considered “or-equal” prior to the Effective Date of the Agreement must be received by the Engineer at least 5 days prior to the date for receipt of Bids. No item of material or equipment will be considered by Engineer as a substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids. Each request shall conform to the requirements of Paragraph 6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon the Bidder. Engineer’s decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed substitute item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

SC-6.06 - Concerning Subcontractors, Suppliers, and Others

Add a new paragraph immediately after Paragraph 6.06.G:

- 6.06.H: The Contractor shall not award work valued at more than fifty (50%) percent of the Contract Price to Subcontractor(s), without prior written approval of the Owner.
- 6.06.I: The apparent low bidder (within 5 days of the bid opening) shall submit to the Owner a list of all proposed subcontractors. Subcontractors shall be submitted by the low bidder and evaluated by the Owner in accordance with article 12 of the Instructions to Bidders.

SC-6.10 - Taxes

Add a new paragraph immediately after Paragraph 6.10.A:

- B. Owner is exempt from payment of sales and compensating use taxes of the State of Connecticut and of cities and counties thereof on all materials to be incorporated into the Work.
1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
 2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

SC-6.11.B - Use of Site and Other Areas

Add the following language at the end of paragraph 6.11.B:

The materials or refuse or other debris used in the construction of the work, shall be legally disposed away from the site in such manner so that will not endanger or interfere with persons or the work being performed.

SC-6.11.C - Use of Site and Other Areas

Delete Paragraphs 6.11.C in its entirety and insert the following:

C. Cleaning:

1. The Contractor shall exercise every precaution and means to prevent and control dust arising out of all construction operations from becoming a nuisance to abutting property owners or surrounding neighborhoods. Pavements adjoining the pipe trench shall be kept broomed off and washed clean of excess materials wherever and whenever directed. Repeated daily dust control treatment shall be provided to satisfactorily prevent the spread of dust until permanent pavement repairs are made and until earth stockpiles have been removed, and all construction operations that might cause dust have been completed. No extra payment will be made for dust control measures, compensation shall be considered to be included in the prices stipulated for the appropriate items as listed in the bid.
2. In case the Contractor fails or neglects to promptly remove all surplus materials, tools, and incidentals after backfilling, leaving the street or surrounding area clean and free of debris, and do the required repaving when ordered, the Owner may, after 24 hours notice, cause the work to be done and the cost thereof deducted from any payment due to the Contractor.
3. After the work is completed, the pipes, manholes, and structures shall be carefully cleaned free of debris and dirt, broken masonry, and mortar, and left in first class condition, ready to use. All temporary or excess materials shall be disposed of off-site and the work left broom clean, to the satisfaction of the Owner.

4. 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.

SC-6.16 - Emergencies

Add a new paragraph immediately after Paragraph 6.16.A:

- B. The Contractor is required to provide the Owner with a telephone number which can be used during emergencies, 24 hours per day, seven days per week, to reach the Contractor.

SC-13.02 - Access to Work

Add a new paragraph immediately after Paragraph 13.02.A:

- B. The Contractor shall allow access to the site and project records by the Department of Public Health (DPH), Department of Energy and Environmental Protection (DEEP) and/or authorized State representatives.

SC-14.02.A.3 - Retainage

Delete paragraph 14.02.A.3 in its entirety and insert the following:

3. The amount of retainage with respect to progress payments will be as stipulated in the Instructions to Bidders. No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage, or invest the retainage for the benefit of the Contractor.

SC-14.02.A.4 - Applications for Payment

Add the following new Paragraph after Paragraph 14.02.A.3:

4. The Application for Payment form to be used on this Project is EJCDC No. C-620 or AIA Document G720. The Owner must approve all Applications for Payment before payment is made.

SC-14.02.A.5 - Applications for Payment

Add the following new Paragraph after Paragraph 14.02.A.4:

5. The Contractor and all Subcontractors must submit weekly Connecticut Certified Payroll Forms and USDOL Form WH-347 in accordance with the requirements set forth in Section XI Prevailing Wage Requirements & Rates with each Application for Payment. Applications for Payment will not be processed until all of the required signed certified payrolls forms from the Contractor and all Subcontractors have been submitted to the Owner.

SC-14.02.E - CGS 49.41a

Add the following new Paragraph after Paragraph 14.02.D.3:

E. *CGS 49.41a - Enforcement of Payment by General Contractor to Subcontractor and Subcontractor to his Subcontractors*

- a. The general contractor, within thirty days after payment to the contractor by the state or a municipality, shall pay any amounts due any subcontractor, whether for labor performed or materials furnished, when the labor or materials have been included in a requisition submitted by the contractor and paid by the state or a municipality; (2) each subcontractor shall pay any amounts due any of its subcontractors, whether for labor performed or materials furnished, within thirty days after such subcontractor receives a payment from the general contractor which encompasses labor or materials furnished by such subcontractor.
- b. Each payment requisition submitted in accordance with the requirements of subsection (a) of this section, except for any such payment requisition submitted pursuant to a contract administered by or in conjunction with the Department of Transportation, shall include a statement showing the status of all pending construction change orders, other pending change directives and approved changes to the original contract or subcontract. Such statement shall identify the pending construction change orders and other pending change directives, and shall include the date such change orders and directives were initiated, the costs associated with their performance and a description of any work completed. As used in this section, "pending construction change order" or "other pending change directive" means an authorized directive for extra work that has been issued to a contractor or a subcontractor.
- c. If payment is not made by the general contractor or any of its subcontractors in accordance with such requirements, the subcontractor shall set forth his claim against the general contractor and the subcontractor of a subcontractor shall set forth its claim against the subcontractor through notice by registered or certified mail. Ten days after the receipt of that notice, the general contractor shall be liable to its subcontractor, and the subcontractor shall be liable to its subcontractor, for interest on the amount due and owing at the rate of one per cent per month. In addition, the general contractor, upon written demand of its subcontractor, or the subcontractor, upon written demand of its subcontractor, shall be required to place funds in the amount of the claim, plus interest of one per cent, in an interest-bearing escrow account in a bank in this state, provided the general contractor or subcontractor may refuse to place the funds in escrow on the grounds that the subcontractor has not substantially performed the work according to the terms of his or its employment. In the event that such general contractor or subcontractor refuses to place such funds in escrow, and the party making a claim against it under this section is found to have substantially performed its work in accordance with the terms of its employment in any arbitration or litigation to determine the validity of such claim, then such general contractor or subcontractor shall pay the attorney's fees of such party.
- d. No payment may be withheld from a subcontractor for work performed because of a dispute between the general contractor and another contractor or subcontractor.

- e. This section shall not be construed to prohibit progress payments prior to final payment of the contract and is applicable to all subcontractors for material or labor whether they have contracted directly with the general contractor or with some other subcontractor on the work.

SC-15.01.A - Suspension of Work

Delete Paragraphs 15.01.A in its entirety and insert the following:

- A. Refer to the Regulations of Connecticut State Agencies Sec. 22a-482-4(g).6 within this Project Manual for suspension of work conditions.

SC-15.02.B - Owner may Terminate for Cause

Delete the word “seven” from the second line and insert the word “ten” in its place.

SC-17.05 - Miscellaneous

Add a new paragraph immediately after Paragraph 17.05.A:

- B. Contractors shall observe and comply with all Federal, State and local laws, ordinances and regulations. Contractors shall indemnify and save harmless the Town, all of its officers, agents and servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation or negligence whether by the bidder, his employees, his consultant and/or their employees.

SC-18 - Street and Sidewalk Access

Add a new Article 18, “STREET AND SIDEWALK ACCESS,” after Article 17.

18.01 *Streets and Sidewalks to be Kept Open*

- A. The Contractor shall at all times keep the streets and highways in which he may be working open for pedestrian and vehicular traffic. If in the opinion of the Owner, the interest of abutters and the public requires it, the Contractor shall bridge or construct planking across trenches at street crossings and roads or private ways. The Contractor shall conduct his work in such a manner as the Owner may direct from time to time. No sidewalk shall be obstructed where it is possible to avoid it.
- B. As required or directed by the Owner, the Contractor shall install in selected locations suitable plank crossings, substantially built and reinforced to sustain vehicular traffic across excavations. No separate payment will be made for this work, the cost of which shall be included in the prices stipulated for the appropriate items in the work as listed in the bid.

18.02 *Emergency Access*

- A. The Contractor shall provide all necessary emergency vehicle crossings at principal intersections or ways usually traveled by emergency apparatus with provisions for the apparatus so it can travel along the line of the pipe installations.
- B. If it becomes necessary at any time to temporarily barricade a street or cause detours to be put up, or rerouting of traffic, the Fire and Police Departments, Board of Education, and ambulance company shall be notified by the Contractor, and their consent obtained before any such action is initiated.

18.03 *Bus Line Interference*

- A. Whenever it may be necessary to interfere with any bus lines, notice shall be given to the corporation owning the same, and reasonable time will be given to said corporation to arrange the schedule for operation of the bus line, as it may be necessary.

SC-19 - Temporary Power

Add a new Article 19, "TEMPORARY POWER," after Article 18.

- 19.01 The Contractor shall make all the necessary arrangements with the power company for providing temporary electric power for his use. All unauthorized sources of power, such as from neighboring homes, shall be prohibited.

SC-20 - Blasting

Add a new Article 20, "BLASTING," after Article 19.

20.01 *Approvals*

- A. The approval of the Owner shall first be obtained before blasting is permitted. Before any explosive, such as dynamite or detonator caps are stored or used, the Contractor shall contact the Fire Department of the Town of Montville or Town of Bozrah for instructions relative to the regulations for possession and use of explosives in the Town of Montville or Town of Bozrah, Connecticut. The Contractor shall obtain all required permits, or licenses for possession and use of explosives to be used on the site or sites of construction.

20.02 *Requirements*

- A. The Contractor shall also be responsible for the explosive materials at all times; for the keeping of records regarding the explosives open at all times to inspection by the Police and Fire Departments of the Town of Montville or Town of Bozrah, Connecticut; for the storage of explosive materials in a secure manner away from all tools, overnight or for any length of time at the site or sites of construction; for the keeping of only such quantity of explosive material as may be needed for the work underway; for the immediate reporting to the Police and Fire Departments of the Town of Montville or Town of Bozrah, Connecticut of all unaccounted for explosive materials; for completely, adequately and carefully covering all blasts with suitable blasting mats in such a manner

to prevent damage to landscape features, structures, facilities, privately owned and all other properties and surrounding objects and in a manner that will prevent injury to persons.

- B. Unless specifically permitted, no blasting shall be done between the hours of sunset and sunrise on any day and no blasting will be allowed on Sundays or legal holidays.
- C. Receptacles especially constructed for use in the storage of explosives shall be provided for the storage of explosives and they shall be proof against bullets, fire or other conditions which might cause explosions of the contents. When the need for explosives is ended, all such materials remaining on the job shall be promptly removed from the premises.
- D. **Blasting shall conform to the requirements and guidelines outlined in the PROCEDURES FOR BLASTING NEAR ACTIVE GAS MAINS AND SERVICES included with these specifications.**

SC-22 - Licensing Requirements

Add a new Article 22, "LICENSING REQUIREMENTS," after Article 21.

22.01 The following are licensing requirements for the State of Connecticut to perform water installations and repairs:

- A. The Contractor must have on the payroll one individual with either a P-7 (Contractor Limited) or a P-1 (Contractor Unlimited) License.
- B. If the individual with the P-7 or P-1 license is not on site during installation of the facilities, then an individual with a P-6 (Journeyman) license must be on site to supervise the work. Anyone who handles the pipe while installing water mains, water services and/or appurtenances must have either a P-1, P-7, P-6 license or be an apprentice registered with the State of Connecticut Labor Department.

SC-23 - Work in the State Highway

Add a new Article 23, "WORK IN THE STATE HIGHWAY," after Article 22.

Where the work is in a State Highway, the Contractor shall obtain at his own expense all required permits, and perform the work in accordance with the terms and conditions stipulated by the State Department of Transportation (DOT) and/or as required by the DOT inspectors. The Contractor must provide such security and insurance as may be prerequisite to obtaining such permits.

All Bidders are notified that **Salem Turnpike (CT Route 82) is a state highway** and the following permit, bond and insurance limits are required for this project: an encroachment permit will be issued upon receipt of a completed application; a Bond (on State form CLA-5) in the amount of **\$10,000.00** in the contractor's name; a Certificate of Insurance (on State form-CON-32 Rev. 11/07) requiring Bodily Injury Liability \$1,000,000 each accident or occurrence and

Property Damage Liability, Aggregate \$2,000,000; a check or money order in the amount of \$100 made payable to “Treasurer-State of Connecticut”, a permit will be issued.

In the event the Owner, or the Owner and the Contractor jointly are required to obtain any permits the Contractor shall familiarize himself with the conditions of said permits and shall be held to comply with all requirements of the permits and all specifications attached thereto, as if the permits were held solely by the Contractor.

The Contractor shall conform to all Department of Transportation requirements for materials and construction methods for all work within State Highway.

The cost of all labor, materials, and equipment necessary to conform with State requirements for work in or adjacent to State Highways, including work not specifically stated in the Contract drawings and specifications, shall be included in the Contract unit prices. A copy of these requirements is included in Appendix A.

SC-24 - Inland Wetland Regulated Activities

Add a new Article 24, “INLAND WETLAND REGULATED ACTIVITIES, “after Article 23.

All Bidders are notified that this project proposes work activities within the regulated inland wetlands and/or watercourses of the Towns of Bozrah and Montville.

Inland Wetlands Permits from the Inland Wetlands Commission of Montville and Bozrah have been secured and are included in Appendix B. The Contractor shall conform to all applicable requirements for materials and construction methods for all work within the regulated areas shown on the plans.

The successful bidder shall provide a Performance Bond in the amount of \$3,000 payable to the Town of Bozrah to ensure compliance with the requirements of the Inlands Wetland Permit issued by the Town of Bozrah Inland Wetlands Commission. This will be returned upon completion and acceptance of the project.

The cost of all labor, materials, and equipment necessary to conform to the requirements and conditions of the Inland Wetlands permits, including work not specifically stated in the Contract drawings and specifications, shall be included in the Contract unit prices.

APPENDIX A – CTDOT DETERMINATION



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

DISTRICT II
171 Salem Turnpike
Norwich, Connecticut 06360
Phone:



BY:

September 6, 2018

Mr. Darren Hayward, P.E.
CLA Engineers, Inc.
317 Main Street
Norwich, CT 06360

Dear Mr. Hayward:

Subject: Leffingwell Road Water System Improvements
Route 82
Town of Bozrah

This office has completed our review of the submitted plans entitled, "Leffingwell Road Water System Improvements – Route 82 – Bozrah, Connecticut" dated August 7, 2018. A final determination has been made and we find the proposal acceptable with no further comments at this time.

As regulated by Connecticut General Statute 13b-17, no work is to commence within the State right of way without first obtaining a DOT encroachment permit. In order to obtain the required encroachment permit, the following documents must be provided:

- A completed encroachment permit application (State Form PMT-1 Rev. 5/91).
- A Bond on State Form CLA-5 in the amount of \$10,000 in the owner or developer's name.
- Proof of minimum insurance requirements (General Liability of \$1,000,000 and Aggregate of \$2,000,000). Insurance may be carried by the contractor.

These forms, along with additional information, may be obtained at www.ct.gov/dot.

If you have any questions in regard to this matter, please contact Mr. Daniel McBride of this office at (860) 823-3114, or by email at Daniel.McBride@ct.gov.

Sincerely,

Andrew S. Morrill
Special Services Section Manager
Bureau of Highway Operations

cc: Bozrah Planning and Zoning

APPENDIX B – INLAND WETLANDS PERMITS

TOWN OF MONTVILLE
INLAND WETLANDS COMMISSION
310 Norwich-New London Turnpike
Uncasville, Connecticut 06382
Phone: (860) 848-6779 – Fax: (860) 848-2354

RECEIVED
NOV 30 2018
DT:

INLAND WETLANDS PERMIT: 218 IWC 15
ISSUANCE DATE: November 1, 2018
EXPIRATION DATE: November 1, 2023
APPLICANT: Norwich Public Utilities
**PROPERTY ADDRESSES: Leffingwell Rd., Noble Hill Rd., and Trading
Cove Brook (Right-of-Way)**
PROPERTY OWNER: Town of Montville

This authorization refers to your application to conduct regulated activities within inland wetlands and/or watercourses in the Town of Montville.

The Inland Wetlands Commission reviewed your application with regard to Sections 22a-41 of the General Statutes and Section 10 of the Montville Inland Wetlands and Watercourse Regulations.

Based on this review, the Commission finds that the proposed work is in conformance with the above regulations and **GRANTS** license for the following activities:

Norwich Public Utilities for a permit for Regulated Activities for the extension of an existing water main/structure, on the property of Leffingwell Rd., Noble Hill Rd., and Trading Cove Brook (Right-of-Way), Montville, CT as more fully described in the application and on a plan entitled “Norwich Public Utilities-Stony Brook Transmission Main Rehabilitation-Phase I, Erosion & Sediment Control Plan at Trading Cove Brook” dated September 5, 2018 and revised October 30, 2018.

Standard Conditions of Approval Apply as Follows:

- ❖ Authorized representatives of the Town may enter at reasonable times to conduct on-site inspections or routine maintenance.
- ❖ The permittee shall notify the Inland Wetlands Officer prior to the commencement of work and upon its completion.
- ❖ If the authorized activity is not completed on or before this expiration date, said activity shall cease, and if not previously revoked, extended or renewed this permit shall be null and void. **IT IS THE APPLICANT’S RESPONSIBILITY TO APPLY FOR A RENEWAL AT LEAST 65 DAYS PRIOR TO AFOREMENTIONED EXPIRATION DATE.**
- ❖ All work and regulated activities conducted pursuant to this authorization shall be consistent with the terms and conditions of this permit. Any structures, excavation, fill, obstructions, encroachments, or regulated activities not specifically identified and authorized herein shall constitute a violation of this

permit and may result in its modification, suspension, or revocation. Upon initiation of the activities authorized herein the permittee thereby accepts and agrees to comply with the terms and conditions of this permit.

- ❖ This authorization is not transferable unless written consent of the Inland Wetlands Commission is obtained.
- ❖ In evaluating this application, the Commission has relied on information provided by the applicant; if such information subsequently proves to be false, deceptive, incomplete and/or inaccurate, this permit may be revoked.
- ❖ The permittee shall employ best management practices, consistent with the terms and conditions of this permit, to control storm water discharges and to prevent erosion and sedimentation and to otherwise prevent pollution of wetlands or watercourses. For information and technical assistance contact the Wetlands Officer in the Planning Department. The permittee shall immediately inform the department of any problems involving wetlands or watercourses which have developed in the course of, or which are caused by, the authorized work.
- ❖ No equipment or material including without limitation, fill, construction materials, or debris, shall be deposited, placed or stored within 50' of any wetland or watercourse on or off site unless specifically authorized by this permit.
- ❖ This permit is subject to and does not derogate any present or future property rights or other rights or powers of the Town of Montville, and conveys no property rights in real estate of material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state, or local laws or regulations pertinent to the property or activity affected hereby.
- ❖ All sediment and erosion control measures shall remain in place and be maintained until all disturbed areas are stabilized. **TIMELY IMPLEMENTATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES ARE A CONDITION OF THIS PERMIT.**

BY:



Nancy Woodlock
Zoning and Wetlands Enforcement Officer

**TOWN OF BOZRAH
INLAND WETLANDS AND CONSERVATION COMMISSION
BOZRAH TOWN HALL
1 RIVER ROAD
BOZRAH, CT 06334**

September 6, 2018

The regular meeting of the Bozrah Inland Wetlands Commission was called to order by Chairman Scott Taylor at 7:05 P.M. in the meeting room of the Bozrah Town Hall.

Regular members present: Charlene Lathrop, Robert Mercado, Evelyn Brown, Scott Taylor, and Chuck Mandel

Regular members absent: Tom Main, and Steve Brunetti

Members from the public present: Sam Alexander SCCOG, Town Planner, Glenn Pianka First Selectman, Tom Webber Wetlands Enforcement Officer, Darren P. Hayward, P.E., from CLA Engineers, Inc., Seymour Adelman, and Raymond Barber

1. Review and approve minutes:

- Review regular meeting notes of August 2, 2018

E. Brown made a motion to approve the August 2, 2018 meeting notes.

D. Mandel seconded the motion.

VOTE – MOTION CARRIED

- Review meeting notes of April 19th special meeting.

E. Brown made a motion to approve the April 19, 2018 meeting notes with one correction.

R. Mercado seconded the motion.

VOTE – MOTION CARRIED

2. Hear the report of the Wetlands Enforcement Officer

T. Webber reported he received the pond extension from S. Adelman which is on the agenda for us to act on tonight, he had nothing else to report at this time.

**TOWN OF BOZRAH
INLAND WETLANDS AND CONSERVATION COMMISSION
BOZRAH TOWN HALL
1 RIVER ROAD
BOZRAH, CT 06334**

S. Taylor asked T. Webber to provide an updated copy of his spread sheet for the next regular meeting.

3. Review correspondence pertaining to agenda items.

S. Taylor asked if any correspondence was received from the town of Montville, S. Alexander responded no.

Nothing to review.

4. New Business

- Norwich Public Utilities: Extend public water main to span Trading Cove Brook on Noble Hill Road.

D. Hayward discussed the minor changes to the site plan, which include and change in the elevation of the water main spanning the Trading Cove Brook on Noble Hill Road. The concrete footings which would support the water main above ground also had a minor change with no adverse impact to the wetlands.

C. Mandel made a motion to approve the application with an erosion control bond in place, the as built submitted to the town hall once the project is complete and T. Webber to inspect the complete project with the silt fence removed.

E. Brown seconded the motion.

VOTE – MOTION CARRIED

5. Review general correspondence.

No correspondence received

6. Such other business as the commission may vote to hear.

**TOWN OF BOZRAH
INLAND WETLANDS AND CONSERVATION COMMISSION
BOZRAH TOWN HALL
1 RIVER ROAD
BOZRAH, CT 06334**

S. Adelman submitted an application to expand a farm pond located a 154 Bozrah Street and Caroline Road. The current pond is roughly 1 2/3 acres and the expansion would be roughly 1 acre.

C. Mandel made a motion to approve the application as a non-regulated activity as stated in our Wetlands Regulation 4.1.

E. Brown seconded the motion.

VOTE – MOTION CARRIED

C. Mandel made a motion to adjourn the meeting.

E. Brown seconded the motion.

VOTE – MOTION CARRIED

Meeting adjourned at 7:30 P.M.

Respectfully Submitted
Charlene Lathrop
Recording Secretary Town of Bozrah

**VII. NORWICH PUBLIC UTILITIES SAFETY GUIDELINES,
PROCEDURES FOR BLASTING NEAR ACTIVE GAS MAINS
AND SERVICES & CITY OF NORWICH SEXUAL
HARASSMENT POLICY**

NORWICH PUBLIC UTILITIES SAFETY GUIDELINES

CONTRACTOR REQUIREMENTS

1.0 Contractor Responsibilities

Introduction:

The following are the Norwich Public Utilities contractor safety requirements. You, the Contractor are to read this material carefully and be prepared to sign and date the back page indicating that you will comply with these requirements. Please feel free to contact Klaus F. Broscheit, Norwich Public Utilities Safety Officer (508) 776-9713 with any questions.

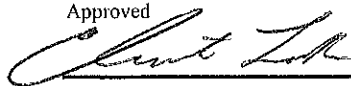
Prior to Operation:

- 1.1 General safety operating requirements will be discussed at the Contractor's Orientation Meeting, prior to the start of the job.
- 1.2 The contractor must advise the Norwich Public Utilities Project Manager of hazards associated with their proposed work operation (chemicals, gases, dusts, radiation). Contractors will not be permitted to bring hazardous chemicals or materials onto Norwich Public Utilities property without first providing the Material Safety Data Sheet, in advance, to the General Manager of Operations for approval by the Norwich Public Utilities Safety Officer. (See Guide 1 and 2 for additional Hazcom and Chemical Handling information and requirements).

2.0 Supervision of Employees

- 2.1 All contractors who conduct work at any Norwich Public Utilities facility will be responsible for complying with all applicable Federal, State, Local, OSHA and Norwich Public Utilities Environment, Health and Safety regulations. The contractor is responsible for notifying his/her personnel of specific hazards, emergency procedures, safe work practice, and safety rules which must be followed while on the job site.
- 2.2 The contractor is responsible for supervision of his/her work force and any subcontractors with regard to all aspects of the project. He/She agrees that all procedures discussed during the orientation are understood by the workers and will be followed.

Approved



Date of Issue
5/19/10

Revised

Number
SG-116

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- 2.3 The contractor will be responsible for providing his/her employees with medical care and first aid treatment.
- 2.4 Loose or hanging clothing, jewelry and long hair are prohibited near moving machines or parts.
- 2.5 Smoking is not permitted at any Norwich Public Utilities facility. Fire prevention and control is critical at any Norwich Public Utilities facility. Please review Guide 3 "Fire Protection and Prevention" for additional requirements.

3.0 Safety Equipment

- 3.1 The contractor is responsible for compliance with Norwich Public Utilities and OSHA regulations with regard to furnishing their employees with all necessary personal protective equipment and all tools and equipment needed to perform service at a Norwich Public Utilities facility. Norwich Public Utilities PPE; tools and equipment shall not be allowed to be used by contract personnel unless authorized in advance by NPU.
- 3.2 Hard hats must be worn in all areas where work is being performed.
- 3.3 Eye protection shall be worn when performing a task which may endanger sight, and in all designated areas where safety glasses are required. (See Guide 4 "Personal Protective Equipment" for additional PPE information and requirements).
- 3.4 Hearing protection shall be worn as required. (See Guide 5 "Hearing Conservation" for additional information and requirements).

4.0 Work Area

- 4.1 The contractor is not permitted to manipulate any switch controls, valves or instruments without advance approval. The contractor will request permission, in advance, before commencement of any work on piping, electrical distribution systems, or utility systems.
- 4.2 Equipment lock-out mechanisms (locks and tags) shall be used in accordance with OSHA standards Lockout/Tagout Procedures.
 - A. Contractors will comply with OSHA 29 CFR 1910.269(d) or 29 CFR 1910.147 standards, "The Control of Hazardous Energy", and shall not

begin work until procedures are coordinated with Norwich Public Utilities representatives.

B. Norwich Public Utilities locks and/or tags may be added (in addition) to outside contractor locks, and shall not be removed until a Norwich Public Utilities representative determines that it is safe to re-engage the energy source.

4.3 Practice good housekeeping at all times. Do not leave materials or equipment blocking aisles, walkways, stairs or other paths of egress.

4.4 Defective tools or equipment shall not be used. All tools and extension cords shall meet or exceed applicable standards.

4.5 Equipment requiring guards and safety devices shall be in good operating condition and shall have all guards in place and all safety devices working properly.

4.6 All ladders shall be ANSI approved and used in accordance with OSHA standards. All ladders shall be inspected each time before use.

4.7 Machinery and equipment shall not be started before a thorough check of the work area has been made by the project manager to assure that people are clear of any moving parts or operations, and all affected employees have been notified.

4.8 No person shall activate or operate powered industrial equipment without proper authorization.

4.9 No confined space will be entered by contractor personnel unless they follow recognized safe confined space entry procedures such as in U.S. NIOSH guidelines, ANSI Standard or other comparable State, Local, or Federal regulations. A confined space is defined as a vessel, tank, pipeline, pit or enclosed space where dangerous air contamination or lack of oxygen may be present due to a manufacturing process or work procedure, or where an egress path may be limited.

A. The Norwich Public Utilities Safety Consultant shall be notified of any planned confined space entries.

B. No personnel shall enter a confined space before a permit has been completed and posted on site.

C. All contractors must supply their own monitoring and safety equipment for confined space entry.

- 4.10 Contractors will observe and honor all signs posted in the area in which they are working. Restricted areas are not to be entered without the express direction of the project manager.
- 4.11 Personal fall protection is required when working on unprotected surfaces 6 feet or more above ground. (See Guide 6 “Working at Elevations” for additional information and requirements when working at elevations).
 - 4.11.1 Electrical Safety is a critical concern to Norwich Public Utilities. All work related equipment is to be de-energized unless live circuit/equipment testing and maintenance is required. Line work can only be performed by “Qualified and Trained Employees” wearing the appropriate PPE and arc blast protection. NFPA 70-E requirements are to be enforced for all live work. (See Guide 7 “Electrical Safety” for additional information and requirements).
- 4.12 Any required Excavations shall follow the applicable OSHA standards. See “Guide # 8 – Excavations and Trenches” for additional contractor information and requirements.

5.0 Disclaimer

The provisions of this section should be considered as an introduction and not a substitute for a thorough understanding of the subjects. Furthermore, it is for information purposes only. This Document does not relieve the Contractor of its obligations to (1) control the manner and means by which it and its employees, subcontractors and agents perform work or services for Norwich Public Utilities and (2) independently ascertain what health and safety practices are appropriate and necessary for the performance of such work or services. Contractors are expected to be familiar with and follow appropriate health and safety practices, including those required by the Federal Occupational Health and Safety Act (“OSHA”) and those set forth in applicable Occupational Safety and Health Administration (OSHA) regulations, as well as any other applicable federal, state or local code.

**CONTRACTORS SAFETY REQUIREMENTS
ACKNOWLEDGEMENT FORM**

I have received copies and read all the NORWICH PUBLIC UTILITIES
"Contractors Safety Requirements" including the accompanying Guides. I
understand these rules and agree to comply with them in entirety.

Contractor Representative

Company Name

Date

This signed document was given to the following NORWICH PUBLIC UTILITIES
representative:

NORWICH PUBLIC UTILITIES Representative

Date

GUIDE 1: HAZARD COMMUNICATION

OVERVIEW

OSHA requires that the hazards associated with all chemicals used or stored at a job site be evaluated. This information must be communicated to employees who may be exposed to these chemicals or use them in their daily jobs. The process for informing employees about the chemicals, their locations and potential hazards is called a Hazard Communication (HAZCOM) program. In general, this program includes requirements and procedures for container labeling and other forms of warning procedures for obtaining and retaining material safety data sheets (MSDSs) and employee training.

MINIMUM HAZCOM REQUIREMENTS

In order to work at any Norwich Public Utilities facility or on any project, all contractors must, at least, meet the following requirements:

1. If any hazardous material is used or stored at the job site, the contractor's written HAZCOM program must be available to all contractor and Norwich Public Utilities personnel for review upon request.
2. The HAZCOM program must include procedures for:
 - Labeling containers and the use of warning forms;
 - Obtaining and retaining MSDSs;
 - Specific worker training requirements;
 - Documentation that these training requirements have been completed by each worker;
 - A list or inventory of hazardous material at the job site.
3. The contractors' supervisor must inform all workers about the hazardous material at the job site when they are first assigned to a project and whenever a new hazardous material is brought to the site.
4. Workers must be informed of the location of:
 - The HAZCOM program;
 - The list/inventory of hazardous substances;
 - The locations of MSDSs and the procedures for obtaining a copy of an MSDS;
 - These must all be available for each worker to review during their work period.
5. The Norwich Public Utilities representative must be informed of all chemicals brought to the site.
6. Each contractor must obtain information from the Norwich Public Utilities representative regarding chemicals that Norwich Public Utilities uses or stores at the site.
7. When more than one contractor is working at a job site, each contractor must inform the other(s) concerning the location of their MSDSs and procedures for labeling and worker protection.
8. **THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE HAZCOM PROGRAM ON THE JOB SITE.**
9. All containers will be labeled.
 - Labels on hazardous material containers will not be defaced or removed.
 - The labels will identify the substance in the container and appropriate warnings about the substance.
 - The material identity will match the material currently in the container, its MSDS, and the overall list/inventory.

10. An MSDS must be available at the job site for every chemical that is present at the site.
- A documented training program will be provided to every worker at the job site. This training will include:
 - Information regarding the HAZCOM program;
 - Health and environmental hazards of every chemical used at the job site;
 - Ways to detect the presence of hazardous materials at a job site (including monitoring methods and devices used);
 - How to read and understand the information contained on an MSDS; and
 - How workers can protect themselves from harmful exposure (e.g., safe work practices, personal hygiene, and protective equipment).

GUIDE 2: CHEMICAL SAFETY AND HANDLING

OVERVIEW

Federal and State laws as well as Norwich Public Utilities require that specific procedures are followed to properly handle chemicals to protect workers and prevent spills. These procedures include those for storing, handling, transferring and processing chemicals.

MINIMUM CHEMICAL SAFETY AND HANDLING REQUIREMENTS

Prior to working at any Norwich Public Utilities facility or project, all contractors must, at a minimum, meet the following requirements.

1. The contractor must assure that the equipment brought into a Norwich Public Utilities site to deliver or store hazardous chemicals is in good condition and that all equipment required is operating.
2. Contractor personnel must be licensed and/or have the necessary handling permits or certifications. Documentation must be present with the driver or on the vehicle at all times for inspection by a Norwich Public Utilities representative.
3. Contractor personnel must be thoroughly familiar with operation of equipment and the use of materials or chemicals used at any Norwich Public Utilities facility.
4. Contractor personnel should have knowledge of the physical properties, hazards and personal protective equipment (PPE) required. All contractor personnel shall be provided with appropriate PPE for the chemicals and hazards present.
5. Spill response equipment shall be available on location to contain or control a reasonably anticipated release or spill. All chemical spills at a Norwich Public Utilities facility or location must be reported to a Norwich Public Utilities authorized representative immediately upon discovery.
6. Contractor will provide to Norwich Public Utilities a complete inventory of chemicals brought onto a Norwich Public Utilities facility or location. Contractor must have all material safety data sheets (MSDS) for the material carried and available on request.
7. At the end of the project the contractor shall remove any chemicals that were not used.

GUIDE 3: FIRE PROTECTION AND PREVENTION

OVERVIEW

Fire safety and prevention is critical to the effective operations of Norwich Public Utilities facilities. Norwich Public Utilities focuses on responsibly safeguarding human and business assets to avoid a fire or explosion that may cause injury or disrupt operations. All contractors performing construction and maintenance operations must implement measures to prevent and control fires, if one occurs.

FIRE PREVENTION AND FIRE CONTROL REQUIREMENTS

Prior to working at any Norwich Public Utilities facility or project, all contractors must, at a minimum, meet the following requirements.

1. The contractor program must identify the fire protection requirements and procedures.
2. The contractor must identify personnel who are trained in the use of fire extinguishers and fire fighting techniques and can fight a fire during the early or incipient stage.
3. A Norwich Public Utilities Representative will be informed of all fire or explosion occurrences.
4. Ensure all field offices, shanties and storage facilities are constructed in accordance with applicable codes and fabricated noncombustible material for protection against fire.
5. The contractor must identify and inform Norwich Public Utilities operations that present a potential fire hazard, for example hotwork (welding, grinding and cutting) and the use of flammable liquids and gases.
6. Contractor must implement procedures to eliminate and control fire hazards including housekeeping, electrical safety, safety procedures for hot work, storage and handling of flammable and combustible liquids and compressed gases.
7. Good housekeeping standards must be enforced in the work area, including the requirements that waste, rubbish and flammable materials and rags be removed from the area daily.
8. All waste, rubbish and flammable materials must be stored in approved containers.
9. Non combustible tables or shelves, or protected work area will be used for hot work.
10. Storing flammable liquids in approved safety cans that are painted red with a yellow band around the can and labeled to identify the contents.
11. Storing combustible liquids in green safety cans that are labeled to identify the contents.
12. Storing all Flammable Combustible Liquids (FCL's) in closed approved metal cabinets and only storing quantities of these liquids on-site that do not exceed the minimum amount required for efficient operation.
13. Prohibit the use of gasoline and other highly flammable liquids for cleaning.
14. Using approved pumps or approved self-closing faucets and drip pans when dispensing FCL from drums or portable tanks.
15. Class B/C rated fire extinguishers will be located in close proximity to FCL areas and monthly and annual inspections will be performed to ensure that the units are ready for use.

16. In the event of a fire involving compressed gases, the gases will be permitted to burn and not extinguished, under any circumstances.
17. Oil, grease and highly volatile liquids must not be stored near oxygen cylinders.
18. Smoking is prohibited near flammable or combustible liquids and gases.
19. Using liquefied petroleum gas (LPG) indoors for cutting and/or welding operations shall be limited to small quantities and no more than a 1-pound bottle shall be stored in the building.
20. Open flames or spark-producing tools must not be used in any enclosure where an explosion concern may exist until testing indicates that an explosion hazard does not exist.
21. Obtain a NPU Hot Work permit if working in vicinity of a natural gas regulator or LNG facility.

GUIDE 4: PERSONAL PROTECTIVE EQUIPMENT

OVERVIEW

For many tasks, personal protective equipment (PPE) is as essential to the job as any tool. OSHA requires that every employer evaluate all tasks associated with a project to determine the hazards associated with these tasks and the appropriate PPE to be worn by each affected employee. This hazard assessment must be documented.

MINIMUM PPE REQUIREMENTS

In order to perform work at any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements.

1. All employers must conduct a hazard assessment prior to the start of every project and as conditions change on the project to determine the types of PPE necessary for each task.
2. The results of the hazard assessment must be communicated to every employee on the project prior to the start of work and as conditions change.
3. All workers must be trained to recognize the need for and types of PPE necessary, the proper use of PPE, the limitations of PPE, and proper care and disposal of PPE.
4. All workers must be trained in the procedures for inspecting PPE prior to use to ensure it provides the required protection.
5. All PPE used must meet applicable American National Standards Institute (ANSI) standards.
6. All PPE must be maintained in a sanitary and reliable condition.
7. Where employees supply their own PPE, the employer is responsible for ensuring the adequacy, maintenance and sanitation of this PPE.
8. Hard hats must never be changed or modified in any way and must be appropriate for the type of work being performed.
9. Eye protection must be appropriate for the type of work being performed and must be equipped with side shields.
10. Burning goggles must be equipped with appropriate filtering lenses for the work being performed.
11. Gloves must provide adequate wrist and hand protection based on the tasks being performed and must be compatible with and resistant to any potential hazard (sharps, chemical, electrical, etc.)
12. Safety shoes or boots must be fitted with protective toe guards.
13. Additional PPE may be necessary for certain situations, for example overboots or rubber boots should be worn for wet conditions or chemical spills, etc.
14. Protective clothing (reusable or disposable) must be appropriate for the type of work being performed.
15. Orange or lime colored reflective vests, approved by the U.S. Department of Transportation must be worn when working in areas exposed to or adjacent to vehicle traffic.

16. Workers required to wear hearing protection must be allowed to select the type of devices they wish to wear from a number of suitable devices.
17. Flame resistant garments are required in areas where there is a potential for arc or flash.

GUIDE 5: HEARING CONSERVATION

OVERVIEW

Noise is defined as unwanted sound. Noise can cause sudden traumatic temporary hearing loss, long-term slowly occurring hearing loss that is irreversible, disruption of communication and masking of warning devices and alarms. These long-term effects may occur at noise levels lower than are constant and daily.

MINIMUM HEARING CONSERVATION REQUIREMENTS

In order to perform work at any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements.

1. Workers must not be exposed to noise levels above those stated in the regulations.
2. All noise levels must be measured on the A-weighted scale by a trained person.
3. When noise exposure includes two or more periods at different noise levels, the combined noise exposure must be calculated.
4. When noise levels exceed the permissible limits, worker exposure must be controlled through engineering controls, administrative controls, personal protective equipment (PPE) or a combination of these.
5. Engineering controls consist of isolating, enclosing or insulating equipment or operations or substituting quieter equipment or operations.
6. Engineering controls are always preferred over other controls.
7. Administrative controls involve rotating workers to jobs having lower noise exposures and reducing the time that each worker is exposed.
8. PPE, for example earplugs and earmuffs, must be rated to reduce the noise exposure to within acceptable limits.
9. A noise exposure at or above 85 decibels on the A-weighted scale (dBA) averaged over an 8-hour time period (with or without PPE) requires a formal written hearing conservation program.
10. A hearing conservation program must include:
 - Noise monitoring;
 - Procedures for employee notification;
 - Provisions to permit employees to observe monitoring;
 - Initial and annual audiometric testing and an evaluation of the audiogram by a qualified professional;
 - A noise training program for all affected workers, and;
 - Formal record keeping.

11. The following table is a guide to common noise levels:

<u>Permissible Duration (dBA)</u>	<u>Examples of Noise Sources</u>
15	Wooded Forest
25	Quiet Bedroom
35	Library
65	Normal Speaking
75	General Office Area
85	Average Machine Shop

Action Level for Hearing Conservation Program – 85 dBA

8 Hours	90
6 Hours	92
4 Hours	95
3 Hours	97
2 Hours	100 Air Spray Operation
1.5 Hours	102
30 Minutes	110 Power Table Saw
15 Minutes	115
7.5 Minutes	120
4 Minutes	125 Rock-n-Roll Concert
2 Minutes	130 Aircraft Jet Engine/Ear Pain Threshold
NOT TO EXCEED	140

12. A standard rule of thumb for noise states that when standing face-to-face at a distance of 1 to 2 feet, if it is necessary to raise your voice to be heard, the background noise exceeds 85 dBA.

GUIDE 6: WORKING AT ELEVATIONS

OVERVIEW

Falls from elevated work areas are one of the leading causes of death each year in occupational settings. Fall prevention is provided by engineering controls such as safety railings or personal fall protection systems. Precautions should also be taken to protect personnel from falling objects. A competent person is required to manage all processes involving scaffolding to ensure that scaffolding is erected, moved, used and dismantled safely.

MINIMUM WORKING ELEVATION REQUIREMENTS

In order to perform work at any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements.

1. Elevated surfaces include openings (pits), open-sided platforms, floors or runways, stairs, ladders, mobile scaffolding, lifting equipment (aerial lifts and ladders).
2. Work performed at elevations must include safety harnesses and lifelines including:
 - Working on unprotected surfaces 6 feet or more above the ground or water.
 - Working on scaffolding 6 feet or more above the ground not equipped with proper railing.
 - Work on lifts where portions of the railing must be removed.
3. Lifelines/harnesses must be inspected and comply with the American National Standards Institute (ANSI) standards and be used according to manufacturers' operating procedures.
4. The lanyard must be a minimum of one-half inch nylon or equivalent and must not allow a fall of greater than 6 feet or one that would contact any lower level.
5. A body harness must be worn and a lanyard attached to the boom strap when working from an aerial lift device. Body belts are prohibited.
6. All open-sided floors, platforms or runways where a fall of 6 feet or more may occur must have railings and toeboards on all open sides.
7. Approved ladders will be used and inspected before each use to ensure their integrity.
8. Scaffold planking, guardrails, ladders and toeboards must be installed on scaffolds as required by the regulations. A scaffold must be rated for four times its intended load.
9. CLIMBING ON SCAFFOLD CROSS MEMBERS IS PROHIBITED.
10. Scaffolding must be cross-braced or braced diagonally and be plumb, square and rigid. Sections of scaffolding are locked together with cotter pins if uplifting may occur.
11. Lean-to scaffolds are prohibited.
12. Loading limitation of scaffold must not be exceeded.
13. The erection, installation and use of various scaffold types will be in compliance with all laws and regulations and manufacturers operating procedures.

GUIDE 7: ELECTRICAL SAFETY

OVERVIEW

Electrical safety is an important component to any safety program. To minimize personal injury from contact with energized sources, workers must be trained in fundamentals of electrical safety and all electrical hazards on a project must be identified and corrected. Only properly licensed electricians may perform any electrical work on Norwich Public Utilities projects.

MINIMUM ELECTRICAL SAFETY REQUIREMENTS

In order to perform work at any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements.

1. Before work begins, all electric circuits, exposed or concealed, that may be contacted by workers must be posted with warning signs.
2. All workers must be notified of the location and hazard involved with nearby electrical circuits and protective measures taken.
3. Workers must not work near any part of an electrical circuit unless they are protected against shock by guarding or by de-energizing and grounding the circuit.
4. Workspaces, walkways and similar locations must be kept free of electrical cords and tools.
5. Equipment must not be stored around electrical cabinets to prevent access.
6. Workers must inspect all electrical equipment, including extension cords, for the following hazards:
 - Missing ground pins on plugs (except double-insulated);
 - Insulation pulled free from plugs or support connections;
 - Damaged insulation;
 - Exposed wires; and
 - Evidence of arcing, sparking or smoking.
7. When any conditions are identified on equipment that makes it unsafe to operate, the equipment must be removed from the site until repaired by a qualified person.
8. Portable lamps must be covered by a fixed, grounded (if metal) guard and equipped with an insulated handle.
9. All underground utilities must be marked prior to any groundbreaking activities.
10. Flexible cords must be suitable for the condition and location of use and must be used as appropriate.
11. Three-wire extension cords must be used and must be rated for hard or extra-hard use.
12. Splices and/or taps are prohibited in extension cords.
13. Extension cords must not be fastened with staples, hung on nails or suspended on wires.
14. Workers must be trained in the safety-related work practices that pertain to their job and cannot work near electrical hazards without training to recognize and avoid the hazard.

15. Electrical workers must test all equipment to verify if energy is present.
16. Only qualified, trained workers may test electrical equipment.
17. Workers must properly lockout and tagout any circuit or equipment being worked on and verify the equipment is de-energized.
18. Personal protective equipment used by electrical workers must be appropriate and in good condition.
19. Portable metal ladders and ladders with metal reinforcement are prohibited near energized electrical equipment.
20. ALL electrical equipment used on a project (hand tools, etc.) must be protected with a ground-fault circuit interrupter (GFCI).
21. Materials must not be stored in transformer vaults.
22. AC and DC wiring systems must be properly grounded.
23. Proper clearance from overhead power lines must be maintained at all times.

Guide 8: Excavation and Trenching

Overview

Excavation operations are among the first actions taken at a project site. Accidental cave-ins of earth that has been excavated account for a large majority of fatalities each year. In many cases, workers receive no warnings when excavated ground collapses and are suddenly trapped under tons of soil.

Minimum Excavation Requirements

In order to perform work on any Norwich Public Utilities facility or project, all contractors must, at least, meet the following requirements. Please note that additional requirements may be necessary based on job-specific activities.

- ALL UTILITIES MUST BE MARKED-OUT BY APPROPRIATE AUTHORITIES PRIOR TO ANY EXCAVATION.
- A trench is considered an excavation.
- All underground hazards (electric lines, gas/water lines, boulders, etc.) must be de-energized or removed/supported appropriately.
- Hand digging must be conducted near known or suspected underground systems.
- Ramps or runways used as a means of entry/exit for excavations must be designed by a competent person.
- A ladder or other safe means of exit must be used in excavations greater than 4 feet deep and cannot be greater than 25 feet from all workers in the excavation.
- Entering an excavation during digging is prohibited.
- When the atmosphere in an excavation is/can become hazardous, Proper atmospheric testing must be conducted as required by the Confined Space Program, Section 6 in this Safety Guideline.
- Daily inspections of the excavation and surrounding areas must be conducted by a competent person before work begins and as needed during the shift.
- Excavations must be shored or braced if nearby structures (buildings, sidewalks, etc.) may become unstable.
- All material, including excavated soil, must be stored at least 2 feet from the side of the excavation.
- Workers may only pass over an excavation on properly constructed walkways/bridges with guardrails in place.
- Adequate physical barriers must be provided around all excavations.
- Adequate protective systems must be used in excavations unless:
 - The excavation is entirely in stable bedrock; or
 - The excavation is less than 5 feet deep AND has been examined by a competent person who has found no signs of potential cave-ins.

• All excavations greater than 5 feet deep must be properly sloped, shored, braced, shielded, or protected by a system designed by a professional engineer.

• If a potentially hazardous material is encountered during excavation, all work must stop until the material can be evaluated by a Safety Professional.

Regulatory

A complete text of the requirements for Excavations can be found in Title 29 Code of Federal Regulations, Part 1926, Subpart P.

Guide 9: Asbestos Awareness

Overview

Asbestos has been used in hundreds of different types of insulation products and building materials. Asbestos-containing materials (ACM) can release asbestos fibers into the air if damaged. To minimize the release of fibers and the potential for exposure concerns, the handling and removal of ACM is highly regulated. The highlights of our Company program are:

- * Contractors are required to ensure that ACM is not inadvertently contacted or disturbed.
- * Suspect ACM must be assumed to be ACM until results of sampling by a certified individual and analysis by a certified lab proves the material to be non-ACM.
- * Contractors will comply with the local, state and federal regulations for ACM work.

Minimum Asbestos Awareness Requirements

When working in any Norwich Public Utilities facility or on any Norwich Public Utilities project, all contractors must meet, at a minimum, the following requirements. The contractor is responsible for ensuring that all controls and requirements are identified to address job-specific activities.

- * All contractors handling ACM will be required to be certified and in accordance with applicable OSHA standards and be trained in the specific tasks they will perform.
- * When contractor personnel contacts or disturbs ACM, the contractor will develop an Asbestos Abatement Work Plan that outlines the procedures for planning and completing the project/activity and will submit the Work Plan to the Norwich Public Utilities Project Coordinator for approval. The Contractor is responsible for the proper filing, permits and fees for projects that will disturb ACM.
- * The contractor will use necessary equipment (negative pressure air machines, respirators, etc.) for activities that disturb ACM to control the releases of fibers and to ensure the safety of personnel.
- * The contractor will comply with federal, state and local regulations, including approved site work procedures, asbestos abatement, disturbance control, personal and facility decontamination procedures, housekeeping practices, final cleanup requirements and clearance procedures, and project engineering control methods.
- * The contractor will use the proper personal protective equipment and air monitoring procedures.
- * The contractor will provide and maintain a Medical Surveillance Program for employees.
- * The Storage/transport/disposal of ACM will comply with federal, state and local regulations.
- * The contractor will maintain asbestos project and employee records for projects including, but not limited to, exposure monitoring records, medical records, training records, fit-test records, and project specific records, such as the amounts and types of asbestos abated, logbooks, waste transportation information and site identification information, etc.

Regulatory

- * Title 29, Code of Federal Regulations (CFR), Occupational Safety and Health Administration (OSHA), Part 1910.1001 - General Industry Standards for Asbestos.
- * Title 29, CFR, OSHA, Part 1926.1101 - Construction Standards for Asbestos.

2.6.9.3 PROCEDURES FOR BLASTING NEAR ACTIVE GAS MAINS AND SERVICES

PURPOSE

To outline the procedure followed when blasting is required near pipes conveying combustible gas.

PROCEDURE

I. ADMINISTRATION

- A. When notified by Call Before You Dig (CBYD) that there will be blasting near a Norwich Public Utilities (NPU) facility, the Project Coordinator or the Gas Water Sewer (GWS) General Foreman obtains the time of blasting, the blaster's name, the person calling and the time notified. A Blasting Work Order is then completed.
- B. The GWS General Foreman reviews the Work Order package and schedules the inspection at the job site.

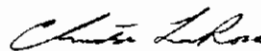
II. DISTRIBUTION RESPONSIBILITIES

- A. Prior to each blasting project, the Project Coordinator, GWS General Foreman, or their designee arranges to meet with the contractor and the blaster to:
 - 1. Check the contractor's and blaster's permits and insurance certificates;
 - 2. Review NPU's blasting policy with the general and blasting contractor;
 - 3. Perform a leak survey of the entire blasting project area.
- B. Prior to each detonation, the GWS General Foreman or their designee arranges to meet with the contractor and the blaster to:
 - 1. Complete Parts A through W of the NPU Blasting Investigation Report (see Figures 1 and 2).
 - 2. Conduct a leak survey prior to each detonation and record the results on Part S of the NPU Blasting Investigation Report. In the event a gas leak is detected, the GWS General Foreman or his designee shall ensure that no further blasting occurs until the leak is repaired and all residual gas is cleared.
 - 3. Inspect the site and plot W (maximum pounds/delay of eight milli-seconds or more) versus R (horizontal distance between explosion and pipeline" on Figures 3, 4 and 5, using the appropriate pipe material type.

- a. If the plot of the parameters lies in the area marked "Blasting Allowed Upon Permission of Area Inspector", the GWS General Foreman or designee is contacted.
 - b. If the plot of the parameters lies in the area marked "Blasting Not Allowed", the Operations Manager of designee is contacted.
 - c. If the parameters cannot be plotted on the available curves, the Operations Manager, or his designee will evaluate and proceed to step 4. of this section if needed.
 - d. If any unusual conditions exist, the City Inspector, Fire Chief, or Fire Marshal is notified.
4. Any time the recommended NPU policy limit is planned to be exceeded, the Operations Manager shall be contacted. The Operations Manager or his designee shall consult a Connecticut certified blasting consultant to review and approve the proposed blasting plan. The expense for this shall be borne by the contractor responsible for the project.

C. After each detonation, the GWS General Foreman or their designee:

1. Conducts a leak survey after each detonation and records the results on Part T of the Blasting Investigation Report. In the event a gas leak is detected, the GWS General Foreman or his designee shall ensure that no further blasting occurs until the leak is repaired and all residual gas is cleared.
2. Returns the completed Blasting Investigation Report to Distribution for filing.



APPROVED:

Assistant General Manager

TITLE:

BLASTING INVESTIGATION REPORT

Figure 1

A. Prepared by _____

B. Date: _____

C. CBYD Ticket No. _____

D. Time of Arrival at Job Site _____

E. Location _____ Town _____

F. Contractor _____ Subcontractor _____

G. Contractor's Insurer _____

H. Blasting Contractor _____ Blaster's Name _____

I. Blasting Company's Insurer _____

J. Material to be Blasted _____ Pipe Material _____

K. Time of Blast _____

A. Horizontal Distance to Nearest Gas Line (ft), R

B. Amount of Explosive per Delay (lbs./delay), W

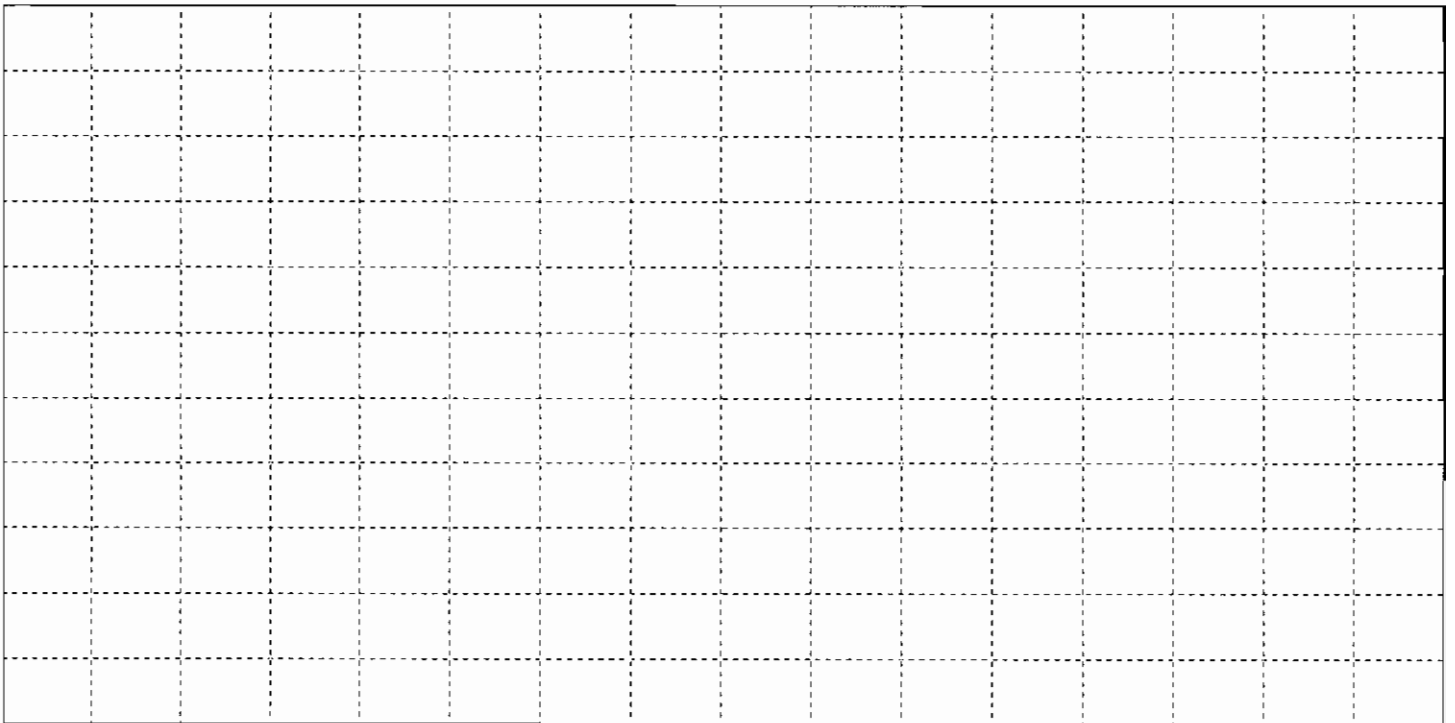
C. Number of Delays

D. Time per Delay (Milliseconds)

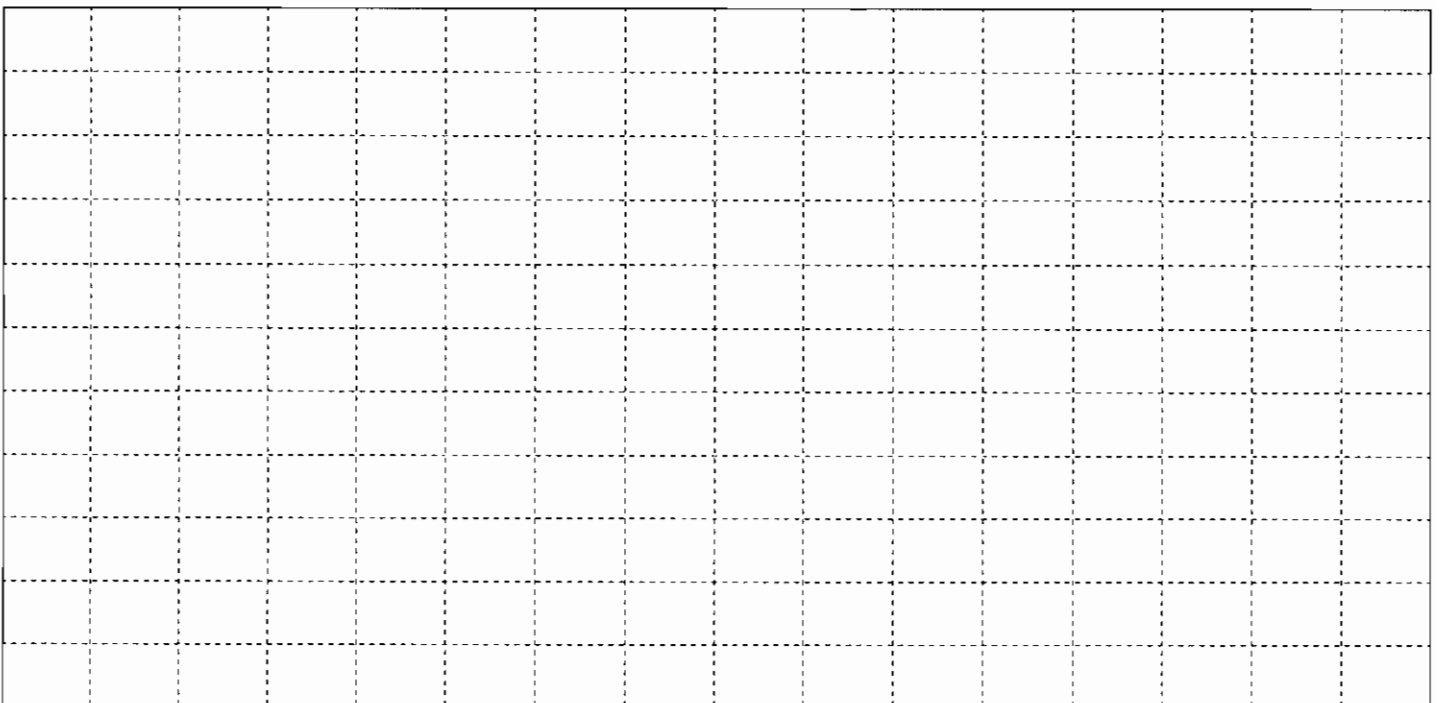
E. Depth of Blast Hole (Feet)

F. Dept of Gas Pipeline (Feet)

- G. Diameter of Pipeline (Inches)
- H. CGI Reading Before Detonation
- I. CGI Reading After Detonation
- J. CGI Serial Number

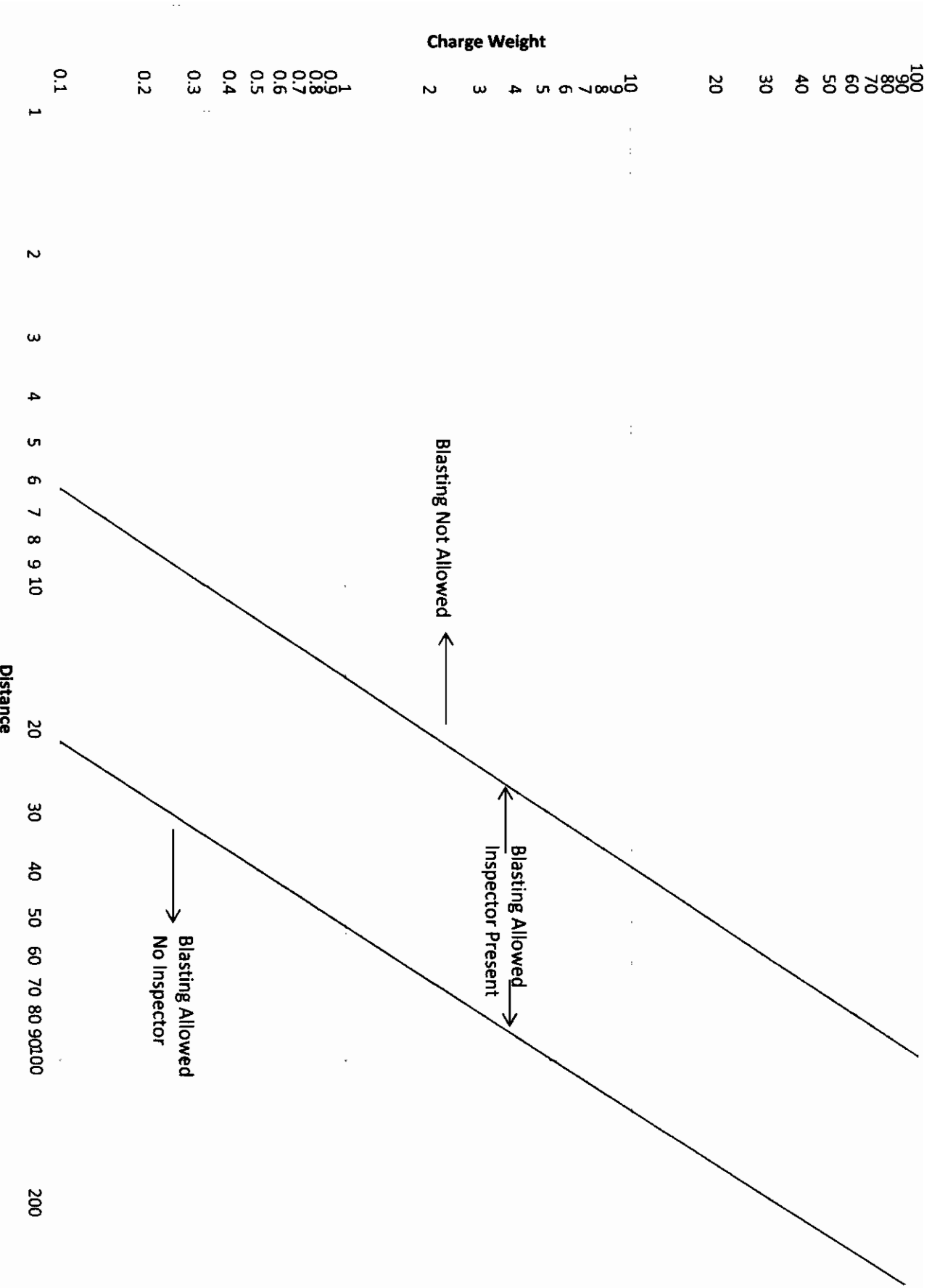


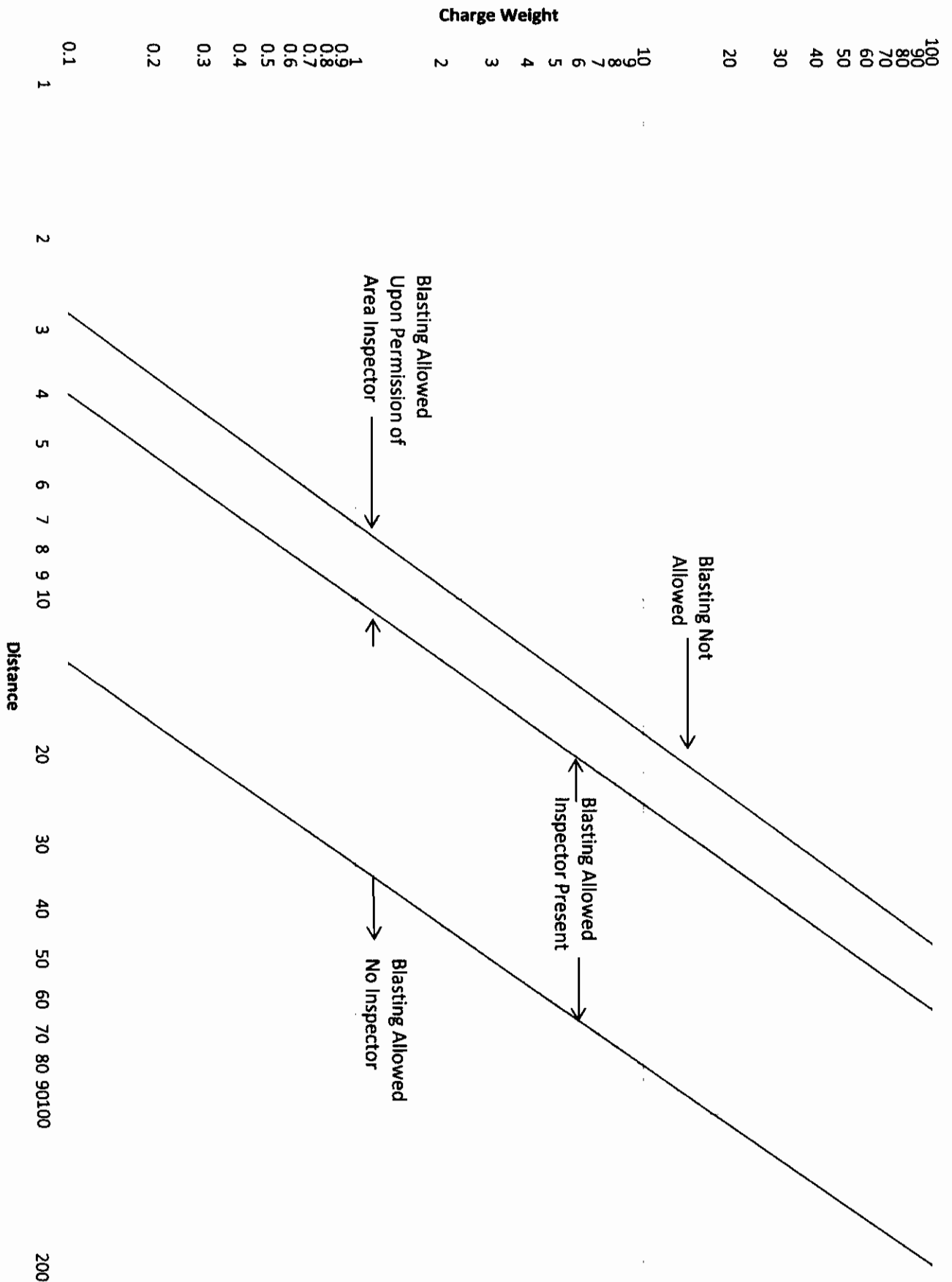
V. Sketch of Area

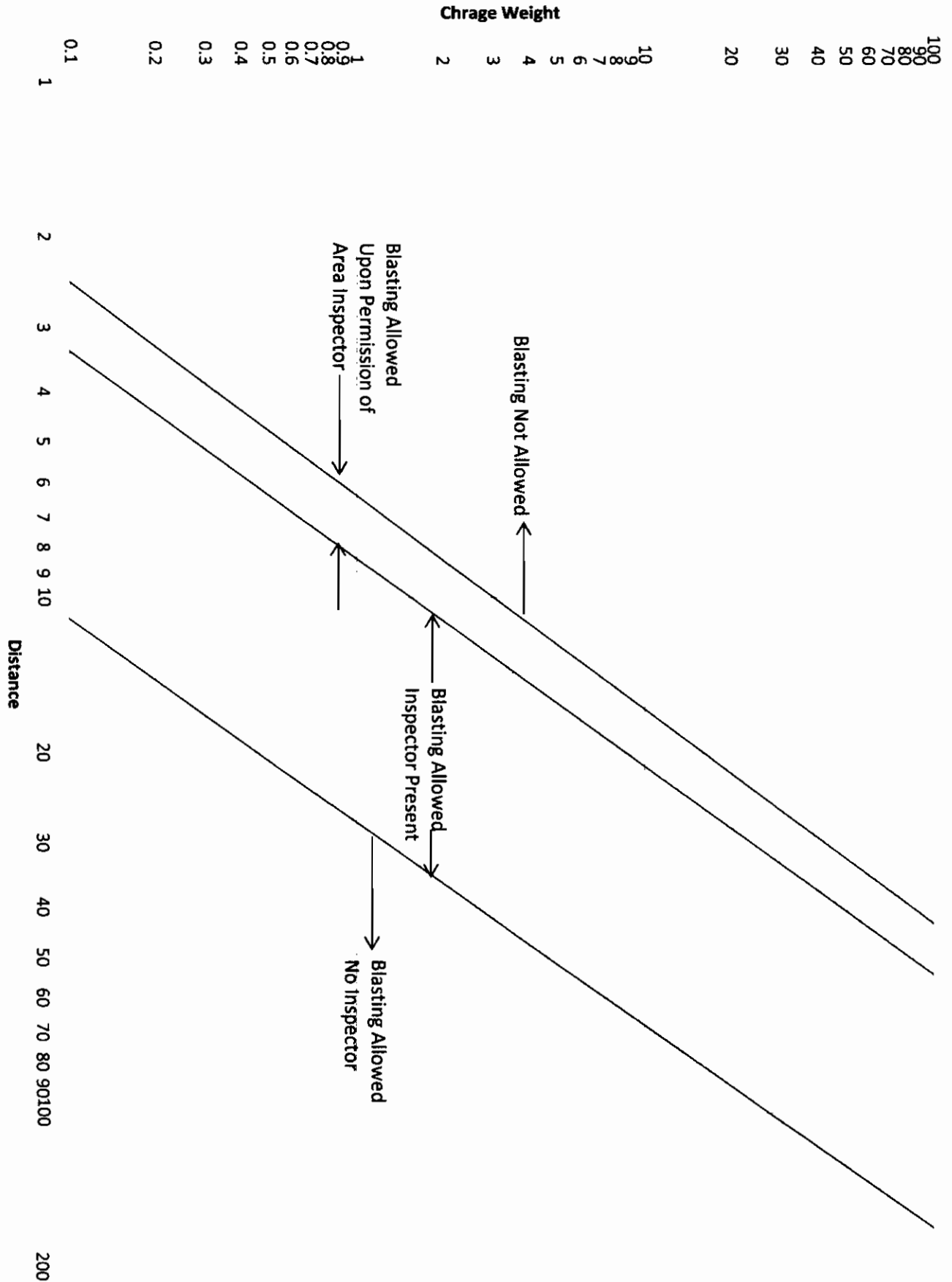




W. Sketch of Blast Hole







HARASSMENT POLICY

The City of Norwich is committed to maintaining a workplace free of harassment and intimidation. The City does not tolerate harassment of any employee by another employee or by a member of management, non-employee or volunteer on any basis including, but not limited to race, color, creed, religion, age, marital status, familial status, national origin, ancestry, sex, veterans status, mental retardation, mental disability, physical disability including but not limited to blindness or deafness, learning disability, lawful source of income, sexual orientation or on the basis of any other characteristic protected by the state or federal law.

Any employee who feels that she/he is a victim of harassment should immediately report the matter to their immediate supervisor or to the Director of Human Resources. All complaints will be immediately investigated. The right to confidentiality of the complainant and the accused will be respected consistent with the City's legal obligations, and with the necessity to investigate allegations of misconduct. No adverse action will be taken against any employee who reports or participates in the investigation of a complaint alleging a violation of this policy. Violations of this policy will not be permitted and may result in disciplinary action, up to and including termination.

SEXUAL HARASSMENT POLICY

The City of Norwich is committed to providing a work environment where women and men can work together comfortably and productively, free from sexual harassment. Such behavior is illegal under both state and federal laws and will not be tolerated here.

This policy applies to all phases of employment including recruiting, testing, hiring, upgrading, promotion or demotion, transfer, layoff, termination, rates of pay, benefits and selection for training, travel or City social events.

Sexual Harassment Defined

Sexual harassment is a form of sex discrimination and is illegal under both state and federal laws. Sexual harassment is defined as any unwelcome sexual advances, request for sexual favors or other verbal or physical conduct of a sexual nature when:

1. submission to such conduct is made either explicitly or implicitly a term of a person's employment;
2. submission to or rejection of such conduct by an individual is used as the basis for an employment decision; and
3. such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment.

Prohibited Behavior

Prohibited sexual harassment includes unsolicited and unwelcome contact that has sexual overtones. This includes:

- written contact, such as sexually suggestive or obscene letters, notes, invitations
- verbal contact, such as sexually suggestive or obscene comments, threats, slurs, epithets, jokes about gender-specific traits, sexual propositions
- physical contact, such as intentional touching, pinching, brushing against another's body, impeding or blocking movement, assault, coercing sexual intercourse, and
- visual contact, such as leering or staring at another's body, gesturing, displaying sexually suggestive objects or pictures, cartoons, posters or magazines.

Sexual harassment also includes continuing to express sexual or social interest after being informed directly that the interest is unwelcome and using sexual behavior to control, influence or affect the career, salary or work environment of another employee.

It is impermissible to suggest, threaten or imply that failure to accept a request for a date or sexual intimacy will affect an employee's job. For example, it is forbidden either to imply or actually withhold support for an appointment, promotion, or change of assignment, or suggest that a poor performance report will be given because an employee has declined a personal proposition.

Also, offering benefits, such as promotions, favorable performance evaluations, favorable assigned duties or shifts, recommendations or reclassifications in exchange for sexual favors is forbidden.

Harassment by Non-employees

In addition, the City of Norwich will take all reasonable steps to prevent or eliminate sexual harassment by non-employees including volunteers, customers, clients and suppliers, who are likely to have workplace contact with our employees.

Monitoring and Training

The City of Norwich shall take reasonable steps to see that this policy prohibiting sexual harassment is followed by all employees, supervisors and others who have contact with our employees. This prevention plan will include training sessions, ongoing monitoring of the work site and employees will, from time to time, be reminded of this policy and of their right to raise the issue of sexual harassment. Also, employees will be reminded that in case of a complaint, the right to confidentiality will be respected consistent with the City of Norwich legal obligations, and with the necessity to investigate allegations of misconduct.

A copy of this policy will be distributed to all employees and posted in areas where all employees will have the opportunity to freely review it. The City of Norwich welcomes your suggestions for improvements to this policy.

Discipline

Any employee found to have violated this policy shall be subject to appropriate disciplinary action, including warnings, reprimand, suspension or discharge.

If an investigation reveals that sexual harassment has occurred, the harasser may also be held legally liable for his or her actions under state or federal anti-discrimination laws or in separate legal actions.

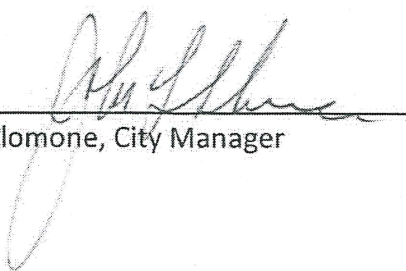
Retaliation

Any employee bringing a sexual harassment complaint or assisting in investigating such a complaint will not be adversely affected in terms and condition of employment, or discriminated against or discharged because of the complaint. Complaints of such retaliation will be promptly investigated and corrective action taken as appropriate.

Complaint Procedure and Investigation

Any employee who believes that he or she has been the subject of sexual harassment should report the alleged charge immediately to his or her supervisor who in turn must immediately notify the Director of Human Resources. An employee may choose to go directly to the Director, who will immediately conduct an investigation. Upon conclusion of the investigation, the Director will issue a recommendation for disposition of the complaint.

The right to confidentiality, both of the complainant and of the accused, will be respected consistent with the City of Norwich's legal obligations, and with the necessity to investigate allegations of misconduct and to take corrective action when this conduct has occurred.



John Salomone, City Manager

2/1/16

Date

VIII. PROJECT SIGN

**Department of Public Health
Drinking Water Section
Drinking Water State Revolving Fund**

DWSRF Project Sign Requirement

Project signage requirements apply to the construction phase of all public water system (PWS) drinking water projects with a total project cost (planning, design and construction) of \$100,000 or more that are receiving funding (wholly or partly) from the Drinking Water State Revolving Fund (DWSRF). This requirement is intended to enhance the public awareness of the DWSRF and the positive impacts and benefits of the funding being provided by the State of Connecticut and the United States Environmental Protection Agency (EPA) to Connecticut's communities for public drinking water improvements. These projects have direct and tangible benefits to Connecticut's residents, businesses and visitors that are often taken for granted or go unnoticed. Awareness of the DWSRF funding is important to help gain public support for the DWSRF and communicate the importance of its role in lowering the overall cost to communities of maintaining safe and reliable public drinking water infrastructure. Connecticut's DWSRF Program has developed these guidelines to clarify these requirements and assist the PWS in complying with them. These guidelines are also consistent with the memorandum that EPA issued to all State Revolving Fund programs (Clean Water and Drinking Water) on June 3, 2015 which outlines project signage expectations for projects funded in whole or in part with federal capitalization grants received by states.

Traditional construction projects typically require that a physical sign (i.e. standard project sign) be erected at, or near, the project site where it can be seen by a broad audience. However, there may be instances where a DWSRF-funded project is located in an area where standard signage is unlikely to be seen by a broad audience, is not cost-effective or presents other unique challenges. Also some projects may be spread across many locations (i.e. water meter replacements) and do not have a defined location. In these instances where the provision of standard signage at the project site is not practical, this guidance provides an alternative option that PWSs can consider to satisfy state and federal signage requirements. **Any alternative that does not involve the erection of a standard project sign at, or near, the project site requires advance approval of the Department of Public Health's (DPH) Drinking Water Section (DWS) prior to implementation.** DWSRF funded projects with a total project cost (planning, design and construction) less than \$100,000 **are not required** to comply with any signage requirements. Costs associated with complying with this signage requirement are eligible for DWSRF funding.

Executive Order 13166 and EPA Order 1000.32

PWSs must ensure that limited English proficient individuals have meaningful access to activities receiving federal funding, consistent with Presidential Executive Order 13166 and United States Environmental Protection Agency Order 1000.32. In this regard, to increase public awareness of projects serving communities where English is not the predominant language, PWSs are encouraged to translate the language used (excluding logos) into the appropriate non-English language(s). The cost of such translation is eligible for DWSRF funding provided the costs are reasonable.

Option 1: Standard Signage

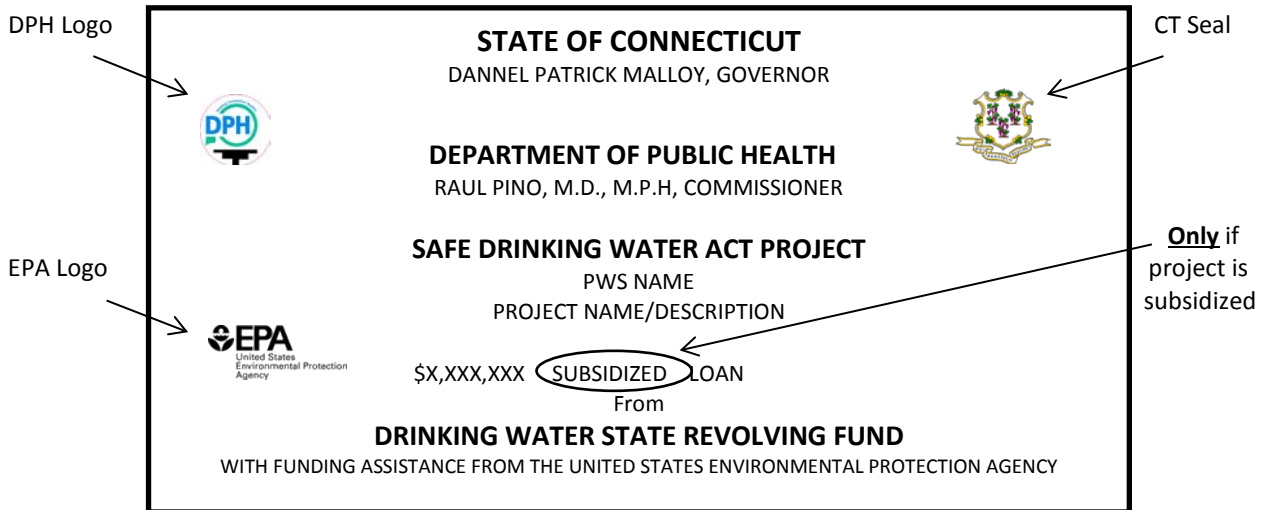
In general, large projects with a total construction cost of \$1,000,000 (one million dollars) or more that involve significant expansion or construction of a new or replacement facility are required to publicize through standard signage. Signs should be erected near a major road or thoroughfare to effectively publicize the upgrades. There may be instances where the project is located in a remote area or on a dead end street which would be unlikely to provide the intended exposure of the sign to a broad audience. In these cases, the sign may be located away from the project site if there is another reasonable alternative. For example, a

**Connecticut Department of Public Health
Drinking Water State Revolving Fund
Project Signage Guidelines**

community may elect to place a sign advertising a project located at a remote reservoir (intake or pipeline project) on a major roadway near the treatment plant that will receive water from the new facility.

The project sign shall be erected prior to the start of any construction work, and shall be in accordance with the specifications and project sign detail shown in Figure 1. The sign shall be furnished, erected, and maintained by the Contractor at a location designated by the Project Owner’s engineer/representative. The names of the Commissioner of the DPH and the Governor of the State of Connecticut as shown on the sign shall be kept current, and shall be revised with 30 days of such notice to the Contractor that a change has occurred, at no cost to the Owner. No additional information shall be placed on the project sign beyond that shown in the project sign detail unless advance approval is obtained from the DWS. If the owner wishes to erect a supplemental sign with additional detail regarding the project or its sponsors, that sign shall be placed in a manner that the project sign is not obscured from public view. **The sign shall not be removed until the project is completed.**

Figure 1 – DWSRF Standard Project Sign



Sign Specifications:

Sign: 3/4" min. thickness exterior plywood (A-B) or APA high density overlay plywood (HDO)

Sign Dimensions: 4' high x 8' wide

Sign Face Background: White outdoor enamel paint (min. 3 coats)

Lettering Color: Black

Logos/State Seal: EPA logo, DPH logo and CT State seal stickers will be provided by DPH for the sign, placement should be generally in the locations shown in Figure 1. The project owner’s utility logo may be included in the remaining open corner.

Sign Positioning: Upright on posts clearly visible to public and project site visitors

Fasteners: Rustproof

After the signage has been erected a Certificate of Compliance – DWSRF Project Signage form must be completed and sent electronically to the DWSRF mailbox to document compliance with this requirement.

Option 2: Signage Posted on Website and Distributed to Customers

Smaller projects costing more than \$100,000 but less than \$1,000,000, projects located in remote areas, and projects without a defined project location may need a more cost-effective or practical method of complying with the signage requirement. The following alternative option may be considered in those instances.

**Connecticut Department of Public Health
Drinking Water State Revolving Fund
Project Signage Guidelines**

PWS can include a single-page pamphlet within water and sewer bills, provide a pamphlet as a separate mailing or hand deliver the pamphlet to customers. The use of a pamphlet should be combined with posting information on the PWS's or municipality's website (if available). This approach would effectively publicize the project to those individuals directly benefitting from the project as well as potentially reach other members of the community that have access to the website. The website information should be posted in an area of the website that receives high traffic volume (Example: "News" section). **Pamphlets and website posting shall be performed prior to the start of any construction work and website postings should remain active until the project is completed.**

Pamphlets and website postings must minimally include the following information:

- Name of facility, project and community
- State SRF administering the program
- Project is wholly or partially funded with EPA funding
- Brief description of the project
- Brief listing of water quality benefits to be achieved

PWSs are further encouraged to provide details of the interest rate and financial savings that the community achieved by taking advantage of SRF funds as well as the environmental and public health benefits to the community.

The following language is an example of information that a PWS may use for pamphlets and web postings.

[Date]

[Name of PWS] Receives Drinking Water State Revolving Fund [add "Subsidized" (if applicable)] Loan

Construction of upgrades and improvements to the **[insert name of facility]** were financed **[insert "in part" or "in whole"]** by the Drinking Water State Revolving Fund (DWSRF) in the amount of **[insert amount of DWSRF funding]**. The DWSRF program is administered by the Department of Public Health (DPH) with joint funding from the U.S. Environmental Protection Agency and the State of Connecticut. This project will **[insert description of project]** and will provide water quality benefits **[insert details specifying environmental and/or public health benefits of the project]** for community residents and businesses in and near **[insert name of town or city and, if appropriate, neighborhood]**. DWSRF programs operate around the country to provide states and communities a low-cost financing alternative to maintain and improve the infrastructure that protects our valuable public drinking water resources nationwide. For more information on the DWSRF please visit the DPH's [DWSRF website](#).

PWSs that choose this option for signage compliance must receive advance approval from the DPH Drinking Water Section prior to implementation. Requests for approval may be sent electronically to the DWSRF mailbox at DPH.CTDWSRF@ct.gov. After the signage has been distributed to customers and posted to the PWS's website a [Certificate of Compliance – DWSRF Project Signage](#) form must be completed and sent electronically to the DWSRF mailbox to document compliance with this requirement.

**Department of Public Health
Drinking Water Section
Drinking Water State Revolving Fund**

Certification of Compliance – Project Signage

PWS Name: _____

PWS ID: _____

Town: _____

DWSRF Project Name: _____

DWS Project Number: _____

Project Signage Details:

The above referenced construction project that received funding from the Drinking Water State Revolving Fund has complied with the Connecticut Department of Public Health – Drinking Water Section’s Project Signage Guidelines dated 11/6/2018 in the manner identified below:

Check all that apply. Fill in or attach, as appropriate, the applicable requested information.

- Option 1: Standard Signage – sign erected at or near the project location
 - a. Date sign was erected: _____
 - b. Attach photo of sign
- Option 2: Mail or hand delivery to customers
 - a. Date distributed to customers
 - b. Method of delivery (check all that apply):
 - Hand delivery
 - Mail delivery
 - Other (specify): _____
 - c. Attach copy of pamphlet
- Option 2: Signage posted on website
 - a. Date sign was posted: _____
 - b. URL Address of website:

Certification:

I hereby certify that the information provided above is true and correct to the best of my knowledge.

Name (please print): _____

Title: _____

Signature: _____

Date: _____

IX. TECHNICAL SPECIFICATIONS

INDEX TO TECHNICAL SPECIFICATIONS

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1.00 GENERAL REQUIREMENTS

1.01 SUMMARY OF WORK

1.01.1 Description:

The work required under this contract includes but is not limited to the following:

1. Installation of ductile iron water main, appurtenances and associated services as shown on the Contract Documents. The contractor shall be responsible for providing and installing all bends, tees, fittings, valves, caps, protective tape or shielding and all other appurtenances as outlined on the Contract Drawings or as necessary to provide a functioning water system.
2. All surface restoration, including the roadway pavement (temporary & permanent) and lawn re-establishment.
3. State road milling and bituminous overlay to the limits shown on the Contract Drawings.

The contractor shall purchase, provide, and install all materials (temporary and permanent) and equipment necessary to complete the work specified in Contract Documents.

The entire work provided for in these technical specifications and on the Drawings shall be constructed and finished in every respect in a good workmanlike and substantial manner. It is not intended that the Drawings shall show every detail piece of material or equipment, but such parts and pieces as may be in accordance with the best practices and regulatory requirements, even though not shown, shall be furnished and installed. All materials and equipment shall be new unless specifically stated otherwise in these Contract Documents.

1.01.2 Location of Site:

The work site for this contract lies in the *Towns of Montville and Bozrah, Connecticut, generally along Leffingwell Road, Noble Hill Road and Route 82 (Salem Turnpike)* as shown on the Contract Drawings.

1.01.3 Work Sequence

Work shall be sequenced so as to allow for uninterrupted flow of existing utilities. The contractor shall conform to the sequences of work as outlined in the Construction Drawings and Specifications. Variations or modifications to the work sequences shall be submitted in writing to the Owner prior to construction, for their approval.

The contractor shall coordinate work with Norwich Public Utilities as outlined in the Construction Drawings and Specifications, where appropriate, or as required by the Owner.

All costs associated with sequencing of work and coordination shall be included in the bid prices for other items.

The Contractor shall submit a construction schedule and modify it from time to time as need arises. The Construction schedule shall be based on the specified completion time. The Construction Schedule shall show the order of work including such significant tasks as construction of lines, connections, backfill and compaction, leakage tests, temporary and permanent restoration. The Construction Schedule shall be submitted for the Owner's approval prior to start of Construction and updated at the time of submitting each request for progress payment.

All completed pipelines, mainlines, service connections, etc. shall be tested as work progresses and in order to ensure this, the Contractor shall arrange for testing equipment to be on site prior to the commencement of pipe laying.

1.01.4 Survey Assistance:

Furnish helpers on an as needed basis to assist the Owner in checking work.

1.01.5 Project Coordination

The work included in these Contract Documents is to be performed under the responsibility of a single prime contract. The Contractor is responsible for the coordination of all the work, whether performed by its own personnel or its subcontractor, and will maintain such procedures as necessary to keep its workman and suppliers informed of project progress so as not to unnecessarily delay completion of the Work.

1.01.6 Standard Specifications

The Standard Specifications for Roads, Bridges, and Incidental Construction, Supplement Form 817, dated January 2018 of the State of Connecticut, as specifically referenced to in the Technical Specifications, shall apply and be considered a part of this specification as though it were bound herein. The Standard Specification is available from the:

Department of Transportation
Engineer of Contracts
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131-7546

2.01 MAINTENANCE AND PROTECTION OF TRAFFIC

1.0 DESCRIPTION

The Contractor shall maintain traffic in the project area to the satisfaction of the Owner. The Contractor must maintain pedestrian and vehicular traffic and permit access to businesses, factories, residences, and intersecting streets. Where detours are required, the Owner may require the Contractor to submit a proposed detour plan for all portions of the work to the Owner. This submittal shall be made at least seven days prior to commencing construction. It shall be the sole responsibility of the Contractor to keep the Local Agencies (including but not limited to the Police and Fire Departments) pre-warned at least 72 hours in advance of changes in traffic patterns due to reduction of pavement widths or closing of streets. The Contractor shall supply, install, maintain, adjust, move, relocate, and store all signs, suitably lighted barricades, traffic cones and traffic delineators, as necessary to carry out the traffic routing plan and maintain vehicular and pedestrian traffic. All of this work shall meet with the requirements of the State of Connecticut, Local Agencies and the Owner.

The Contractor shall furnish, light, and maintain such signs as may be directed, or may be necessary for the safe regulation, or convenience of traffic. Said signs shall be adequate for the regulation, safety and convenience of traffic. The Contractor shall provide, erect, and maintain suitably lighted barricades, warning lights, etc., as needed, or as directed in order to keep people, animals and vehicles from excavations, obstacles, etc. Traffic signs shall be designed and installed in accordance with MUTCD where applicable. The Contractor shall be required to employ traffic men and take other such reasonable means of precautions as the Owner may direct, or as may be needed to prevent damage or injury to persons, vehicles, or other property, and to minimize the inconvenience and danger to the public by his construction operations. He shall arrange his operations to provide access to properties along the street including temporary bridges to driveways, and provide access to fire hydrants, manholes, gate boxes, or other utilities. Whenever any trench obstructs traffic in or to any public street, private driveway, or property entrance, the Contractor shall take such steps as required to maintain necessary traffic and access including temporary bridging if required. The Contractor shall confine his occupancy of public or traveled ways to the smallest space compatible with the efficient and safe performance of the work contemplated by the contract.

At least TWO Connecticut D.O.T. Certified Flagman shall be required for work requiring traffic control.

The Contractor shall observe and obey all local and state laws, ordinances, regulations and permits in relation to the obstruction of streets and highways, keeping passageways open and protecting traffic where there may be danger from blasting or other construction activities.

Suitable lighted barriers or barricades shall be furnished by the Contractor and put up and maintained at all times during the night or daytime, around all open ditches, trenches, excavations, or other work potentially dangerous to traffic. Such barricades shall be securely supported and

braced at least 3 feet high above the ground. Barricades shall be placed on all sides and throughout the entire length and width of all open ditches, trenches, excavations, or other work which must be barred to the general public. Barricades shall be properly painted to the satisfaction of the Owner in order to retain a high degree of visibility to vehicular and pedestrian traffic.

Suitably lighted barricades shall be defined as barricades lit by flashers in accordance with this paragraph or other lighting methods approved by the Owner in lieu thereof. Flashers shall be placed along the entire length of the barricades at an interval no greater than 8 feet, center to center. Flashers shall be power operated, lens directed, enclosed light units which shall provide intermittent light from 70 to 120 flashes per minute, with the period of light emittance occurring not less than 25 percent of each on-off cycle, regardless of temperature. The emitted light shall be yellow in color and the area of light on at least one face of the unit shall be not less than 12 square inches. The discernible light shall be bright enough to be conspicuously visible during the hours of darkness at a minimum distance of 800 feet from the unit under normal atmospheric conditions. For units which beam light in one or more directions, the foregoing specifications shall apply 10 degrees or more to the side and 5 degrees or more above and below the photometric axis.

The Contractor shall furnish and securely fasten flashing units to signs, barricades, and other objects in such numbers and for such lengths of time as are required for the maintenance and protection of traffic, or as the Owner may order. The flasher shall be in operation during all hours between sunset and sunrise, and during periods of low visibility. The Contractor shall maintain, relocate and operate barricades and flashers throughout the life of the contract. No special payment will be made for barricades or flashers.

Should the Contractor or his employees neglect to set out and maintain barricades or lights, as required in these specifications, the Owner immediately, and without notice, may furnish, install and maintain barricades or lights. The cost thereof shall be borne by the Contractor any may be deducted from any amount due or to become due to the Contractor under this contract.

If the Contractor's operations or occupancy of any public street or highway, or the uneven surfaces over any trenches being maintained by the Contractor shall interfere with the removal or sanding of snow or ice by the public authorities or adjoining land owners, in an ordinary manner with regular highway equipment, the Contractor shall be required to perform such services for the public authorities or adjoining owners without charge. If the Contractor fails to do so, he shall reimburse the said authorities or adjoining owners for any additional cost to them for doing such occasioned by conditions arising from the Contractor's operations, occupancy, or trench surfaces, together with any damage to the equipment of said parties by those conditions, or claims of any parties for damage or injury or loss by reason of failure to remove snow or ice or to sand icy spots under these conditions.

Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. This regulation applies to most vehicles such as trucks and other diesel engine-powered vehicles commonly used on construction sites. The Contractor shall post a sign in the work area indicating that there is a three minute idling limit.

4.0 MEASUREMENT AND PAYMENT

"Maintenance and Protection of Traffic" will be paid monthly in proportion to the amount of work done as determined by the Owner. Said payments will be a proportionate amount of the Lump Sum Price bid for the Maintenance and Protection of which shall include all costs for furnishing lighted barricades and traffic protection devices and for labor, equipment and services involved in the erecting, maintaining, moving, adjusting, relocating and storing of signs, flashers, lights, barricades, traffic cones, traffic delineators and other devices furnished by the Contractor, as well as the cost of all labor and equipment involved in the maintenance of traffic lanes and detours ordered or included in the approved scheme for maintenance of traffic. Sufficient signing for all approved detours shall be erected to adequately guide traffic around construction.

The use of flagman by the Contractor to control the movements of his own vehicles (owned, rented or contracted for, or those delivering materials and equipment), for the protection of said vehicles, his workmen or other traffic shall not be measured for payment but shall be included in the Lump Sum Price for the Item "Maintenance and Protection of Traffic".

Connecticut D.O.T. certified traffic control flagman required shall be included as part of this lump sum item which price shall include all compensation, insurance, benefits, vehicles and any other cost or liability incidental to the furnishing of the certified flagman ordered.

At least TWO Connecticut D.O.T. Certified Flagman shall be required for work requiring traffic control.

The Contractor will be required under the Contract Lump Sum Price for "Maintenance and Protection of Traffic" to maintain and protect the traffic throughout the entire duration of the contract. No claim for additional payment due to unusual construction conditions encountered or delay caused by the Contractor or other outside agencies shall be considered.

2.02 TEMPORARY PRECAST CONCRETE BARRIER

1.0 DESCRIPTION

Work under this item shall consist of furnishing, installing, relocating and removing temporary precast concrete barrier curb used to separate traffic from the work area in the vicinity of Trading Cove Brook.

2.0 MATERIALS

The materials for this work shall meet the requirements of 8.22.02. of the standard Specifications

3.0 CONSTRUCTION METHODS:

1. Precast Unit: Temporary concrete barrier units shall be precast in accordance with the pertinent requirements of 8.21.03, except the penetrating sealer protective compound need not be applied to the precast unit.

2. Installation: Temporary precast concrete barrier units shall be placed as shown on the plans or as directed by the Engineer, on a firm even surface so as to produce a smooth continuous barrier curb. The Contractor shall maintain the temporary concrete barrier during all stages of construction. Any damaged material shall be removed and replaced by the Contractor at its expense. The Contractor shall relocate the concrete barrier and its appurtenances to locations within the Project limits as shown on the plans or as ordered by the Engineer. When the temporary barrier is no longer required, it shall be removed completely from the Site and shall remain the property of the Contractor.

3. Delineator: The delineator shall be installed in the center on top of the barrier at the locations designated on the plans. They may be fastened by adhesive or hardware and must be maintained in good condition at all times.

DE-7 delineators shall be used when the barriers are on the right side of traffic or dividing traffic in the same direction.

DE-7 A delineators shall be used when the barriers are on the left side of traffic.

DE-7B delineators shall be used when the barriers divide opposing traffic lanes.

DE-7C delineators shall be used with the yellow side on the left side of traffic when traffic is alternated.

4.0 METHOD OF MEASUREMENT:

This work will be measured for payment along the centerline of the top of the concrete barrier and will be the actual number of linear feet of temporary concrete barrier furnished, installed and accepted.

Storage of concrete barrier curb will not be measured for payment. Relocation of Temporary Precast Concrete Barrier Curb for access to the work area or for the convenience of the Contractor shall be considered incidental to Maintenance and Protection of Traffic and will not be measured for payment.

Delineators shall not be measured separately and the cost shall be incidental to this item.

5.0 BASIS OF PAYMENT:

This work will be paid for at the Contract unit price per linear foot for “Temporary Precast Concrete Barrier Curb” complete in place, which price shall include all furnishing, transportation, initial installation, delineators, final removal, storage, materials, reinforcing steel, connecting rods, equipment, tools and labor incidental thereto.

2.03 WORK ON OR NEAR PRIVATE PROPERTY

1.0 DESCRIPTION

The work under this Section includes the protection of private property and the restoration of areas near or on private property.

Every effort shall be made to protect private or public property during construction. All damaged areas shall be replaced in kind by the Contractor at no additional cost to the Owner.

2.0 MATERIALS

All materials not specifically described in other Sections, but required for work included in this Section, shall be new, first quality of their respective kinds, and subject to the approval of the Owner.

3.0 CONSTRUCTION METHODS

All areas affected by the construction outside of the work limits shall be repaired to the complete satisfaction of the Owner. This work shall also include the reinstallation of all mailboxes, signs, and posts that may be affected during construction. Should these items become damaged by the construction, the Contractor shall replace the damaged items at no additional cost to the Owner.

4.0 MEASUREMENT AND PAYMENT

No separate measurement or payment shall be made for this item and all costs in connection there with shall be included in other contract items.

2.04 DEWATERING, CONTROL AND DIVERSION OF WATER

1.0 DESCRIPTION

The work covered under this Section includes furnishing all labor, equipment and materials, and performing all operations in connection with the dewatering, control and diversion of water, and all other operations necessary to maintain in a dry condition all excavation and work areas of this Contract.

The Contractor shall be responsible for performing all required dewatering in such a manner as to prevent injury to persons or public health, or damage to existing facilities of the work in progress.

2.0 MATERIALS

The Contractor shall be responsible for providing, maintaining, operating and removing all dewatering, and other facilities, including all pumping and appurtenant equipment, required to maintain in a dry condition the areas in which construction of this Contract is to be conducted.

Geotextile silt bags for pump discharges shall be ACF Heavy Duty Dirtbag® 55 or approved equal.

3.0 CONSTRUCTION METHODS

Dewatering and control and diversion of water activities shall conform to the requirements of the State of CT DEEP 2002 Connecticut Guidelines for Soil Erosion and Sediment Control Manual.

A. DEWATERING EXCAVATIONS:

The excavations for work required under this Contract are to some extent below existing ground water levels. The Contractor shall provide, operate and maintain all pumps, drains, well points, screens or any facility necessary for the control, collection and disposal of all surface and subsurface water encountered in the performance of the Contract work. All excavations shall be performed in the dry.

Any damage to existing facilities or new work resulting from the failure of the Contractor to maintain the work areas in a dry condition shall be repaired by the Contractor, as directed by the Owner, at no additional expense to the Owner. Pumping shall be continuous where specified or directed, or as necessary to protect the work and to maintain satisfactory progress.

The Contractor's pumping and dewatering operation shall be carried out in such a manner that no loss of ground will occur. All pipelines or structures not stable against up-lift during construction or prior to completion shall be thoroughly braced or otherwise protected against movement or damage.

Water being disposed of by the pumping and dewatering operations shall be disposed of in such a manner to avoid injury to persons or public or private property, or to the work completed or in progress. Dewatering shall be accomplished by approved methods which have a successful record of dewatering similar excavations and subsurface conditions similar to those expected to be encountered in the work.

B. DIVERSION OF WATER:

The Contractor shall be responsible for providing and maintaining all ditching, grading, sheeting and bracing, pumping and appurtenant work for the temporary diversion of water courses and protection from flooding as necessary to permit the construction of work in the dry.

Upon completion of the Contract work, the Contractor shall remove all temporary construction and shall do all necessary earthwork and grading to restore the area disturbed to their original condition or to such other condition as indicated or directed by the Owner.

Water shall not be permitted to flow into or through excavations in which work is underway or had been partially completed. The Contractor shall not restrict or close off the natural flow of water in such a way that ponding or flooding will occur, and shall at all times prevent flooding of public and private property. All damages resulting from flooding or restriction of flows shall be the sole responsibility of the Contractor, at no additional expense to the Owner.

The Contractor shall be responsible during the course of his work to provide all erosion protection and siltation prevention facilities required by the Contract and to carry out his operation by methods acceptable to the applicable local, State or Federal agencies.

4.0 MEASUREMENT AND PAYMENT

No separate measurement or payment shall be made for this item and all costs in connection there with shall be included in other contract items.

2.06 CALCIUM CHLORIDE FOR DUST CONTROL

1.0 DESCRIPTION

This item shall consist of furnishing calcium chloride and spreading it on the subgrade or in other areas of a project under construction, for the purpose of reducing dust conditions.

2.0 MATERIALS

Calcium chloride shall conform to the requirements of AASHTO M 144, except that the pellet form and the flake form shall be equally acceptable.

3.0 CONSTRUCTION METHODS

Calcium chloride shall be applied only at the locations, at such times and in the amount as may be directed by the Owner. It shall be spread in such manner and by such devices that uniform distribution is attained over the entire area on which it is ordered placed.

4.0 MEASUREMENT AND PAYMENT

No separate measurement or payment shall be made for this item and all costs in connection there with shall be included in other contract items.

2.08 CLEARING AND GRUBBING AND TREE REMOVAL

1.0 DESCRIPTION

This work shall consist of clearing the ground of trees, stumps, brush, rubbish and all objectionable material in accordance with these specifications or as directed by the Owner. This work shall also include the clearing of the ground necessary for the construction and installation of drainage structures. Included in this work shall be the preservation from injury or defacement of vegetation and objects designated to remain.

3.0 CONSTRUCTION METHODS

Within the excavation lines all trees shall be cut off and stumps removed and disposed of away from the site to a depth of not less than 12 inches below the finish graded surface.

In areas other than within excavation lines and where clearing is necessary for the construction and installation of various highway appurtenances, all trees and stumps shall be cut flush with the ground; and all dead or uprooted trees, brush, roots, or otherwise objectionable material shall be removed as directed unless otherwise indicated on the plans.

The Contractor shall dispose of all trees, stumps, brush, etc., which have been cut by the Contractor's or Owner's forces, in a satisfactory manner away from the site.

4.0 MEASUREMENT AND PAYMENT

No separate measurement or payment shall be made for this item and all costs in connection there with shall be included in other contract items.

2.09 SEDIMENTATION AND EROSION CONTROL

1.0 DESCRIPTION

The work and materials required by this Section consists of the furnishing of all plant, labor, equipment and materials and in performing all operations in connection with providing and maintaining in an acceptable condition, the various erosion and sediment control devices specified below in accordance with these Specifications and as directed by the Owner.

The Contractor shall furnish all equipment, labor, materials and related work necessary for the proper execution of the intent of this Section. The Contractor shall operate and maintain and provide means and devices necessary to minimize, to the greatest extent possible, erosion within the work area of this Contract and to prevent the entrance of any silt laden runoff from the work areas into any standing or moving bodies of water on or adjacent to the Work.

The Contractor shall be responsible for the maintenance of all sedimentation and erosion control measures throughout the duration of construction and until all disturbed areas have been stabilized.

Sedimentation and erosion control measure shall be in accordance with the Contract Drawings and shall conform to the requirements of the State of CT DEEP 2002 Connecticut Guidelines for Soil Erosion and Sediment Control Manual.

2.0 MATERIALS

Materials for sedimentation and erosion control measures shall be in accordance with 2.19 of Form 817, the Contract Drawings, and the following:

Filter fabric fence shall conform to the requirements of the Form 817, Section 7.55.02.

Hay bales shall conform to the requirements of Form 817, Article 2.19.02.

3.0 CONSTRUCTION METHODS

Installation of sedimentation and erosion control measures shall be in accordance with 2.19 of Form 817, the Contract Drawings, and the following:

All sediment and erosion control devices shall be properly installed, in a manner acceptable to the Owner, as necessary to minimize erosion within the work area of this contract and to prevent the entrance of any silt laden runoff from the work areas into any standing or moving bodies of water on or adjacent to the work, or as directed by the Owner.

The filter fabric fence shall be installed as recommended by the manufacturer. The bottom of the fabric shall be buried by either digging a six (6") inch on the ground and placing six inches of soil on the fence fabric. All erosion control devices shall be removed when ordered by the Owner after

the regulated disturbed area has been reestablished. The Contractor's attention is called to particular notes on the drawings regarding erosion and sedimentation control and coordination with public agencies.

4.0 MEASUREMENT AND PAYMENT

The cost of this work shall be paid for as a lump sum for "Sedimentation and Erosion Control" and shall include all materials, equipment, tools, and labor incidental to the completion of this item.

2.10 TEST PITS

1.0 DESCRIPTION

The work under this Section shall be the excavation of test pits by the Contractor where it may be necessary to locate or examine soils, groundwater, drains, pipes, rock, public utilities, subsurface structures, or any other obstacles or conditions. Unless otherwise specified or ordered by the Owner, test pits will be performed by the Contractor.

This work shall consist of the satisfactory removal of all materials including water, within the limits of the test pit as necessary. This work shall also include the satisfactory stockpiling, disposal of surplus or unsuitable material, backfilling and compacting of the test pit with suitable material as approved by the Owner. This work shall be performed where shown on the Contract Drawings or where directed by the Owner. All work shall be completed in accordance with applicable local and state safety codes.

2.0 MATERIALS

The Contractor shall coordinate the excavation of all test pits with the respective utility owners having facilities in the vicinity of the location of test pits. If so desired by the respective utility owners, all or part of the work under this item may be accomplished by their crews and/or supervised by them. The Contractor shall give sufficient notice to the respective utility owners to afford reasonable time for coordination.

Test pit excavation and backfill shall comply with the applicable provisions of the Item "Trench Earth Excavation and Backfill" and shall have neat, clean cut and vertical sides.

The Contractor shall measure and record the size, configuration, exact horizontal and vertical location of all utilities, pipes or other obstacles uncovered in the various pits dug under this Section. Upon request, the Contractor shall transmit this information to the Owner.

The Owner shall be notified well in advance of performing the test pits so that he also may make the necessary measurements to locate all objects within test pits.

Excavation of test pits shall be accomplished by such means as are required (including hand work) to ensure that underground utilities or structures as may be encountered are not damaged. It shall be the Contractor's sole responsibility for any damages incurred during the excavation operations. Any such damages shall be repaired or replaced by him (if permitted) to the satisfaction of the Owner/Responsible Agency at the Contractor's own expense. Where the repair and replacement must be done by the Owner/Responsible Agency any and all costs thereof shall be borne by the Contractor.

Where an existing pavement has been removed for the test pit excavation, the surface shall be restored in accordance with the Owner's directions.

In all other areas, the surface of test pit areas shall be restored to a condition equal or better than original as directed by the Owner.

4.0 MEASUREMENT AND PAYMENT

Excavation for test pits will be measured for payment by the Owner and shall be the actual length, width and depth of the excavation within the limits ordered/approved by the Owner. Pavement or base removed under other items of work will not be measured for payment a second time as "Test Pits". Water removed is never measured for payment.

Test pits will only be measured for payment where:

1. The location of the pit is such that said pit will never be incorporated into any excavation being dug for proposed work under this Contract.
2. The test pit will ultimately be within the limits of an excavation required for proposed work under this Contract, but said pit must be backfilled for safety and other reasons, as approved by the Owner prior to the excavation reaching the location of the pit.
3. If any pit is not backfilled and subsequently incorporated into the excavation, said pit will not be measured for payment under the Item "Test Pits" but shall be measured under the appropriate excavation Item.
4. Test pits dug by the respective utility owner will not be measured for payment.

"Test Pits" measured as provided above shall be paid at the contract unit price bid per cubic yard for "Test Pits", which price shall include the excavation of all materials as required. Included in the unit price bid for Test Pits will be excavated sheeting, shoring, dewatering, backfill, compacting and the restoration of the surface of the "Test Pit" and all other materials, equipment, tools, labor and work incidental to or necessary for the completion of the work.

Where a utility owner or company elects to perform all or part of the work under this Section, no payment shall be made to either the Contractor or the participating utility for work performed by the utility under this Section, nor shall any time lost due to poor coordination by the Contractor be charged against the Project.

2.20 PROJECT SIGN

1.0 DESCRIPTION

The contractor shall erect a sign at the project identifying the project and indicating that the Connecticut Department of Public Health, which is providing funding for the construction of the project. The project sign shall be erected prior to the start of any construction work, and shall be in accordance with the specifications noted below and the enclosed project sign detail. The sign shall be furnished, erected, and maintained by the Contractor at a location designated by the Owner. The names of the Commissioner of Public Health and the Governor of the State of Connecticut as shown on the sign shall be kept current, and shall be revised with 30 days of such notice to the Contractor that a change has occurred, at no cost to the Owner. No additional information shall be placed on the project sign beyond that shown in the project sign detail. If the owner desires to erect a supplemental sign with additional detail regarding the project or its sponsors, that sign shall be placed in a manner that the project sign is not obscured from public view.

2.0 MATERIALS

The sign shall be constructed of $\frac{3}{4}$ " minimum thickness exterior plywood (A-B) or APA high density overlay plywood (HDO). All fasteners shall be of a rustproof nature. The sign face background shall consist of at least three (3) coats of white outdoor enamel paint. The sign shall be fastened securely in an upright position and maintained in a location on the construction site clearly visible to the public and to visitors to the site.

Logo stickers The Department of Public Health will provide the appropriate logo stickers for use on the project sign. The logos may be placed anywhere in the blank areas on either side of the text in the center (see template). They should be placed so as to allow sufficient clearance between logos, as may be required.

3.0 CONSTRUCTION METHODS

Sign format and installation shall conform to the DWSRF template included in these specifications.

Treated wood columns shall be secured 4'-0" into grade minimum.

4.0 MEASUREMENT AND PAYMENT

No separate measurement or payment shall be made for this item and all costs in connection there with shall be included in other contract items.

3.02 TRENCH EARTH EXCAVATION AND BACKFILL

1.0 DESCRIPTION

A. WORK INCLUDED:

The work covered under this Section includes:

1. Performing all operations of excavating, backfilling, compacting, grading and all other work necessary for the construction of pipelines, structures, and appurtenant work in accordance with the Drawings and Specifications.
2. Installation of sheeting and shoring as required.
3. Excavation of pavements and surplus and unsuitable materials, and disposal in approved locations, away from the site.
4. Protection of existing pipelines, utilities, structures and new work.
5. Compaction of trench bottoms, backfills and subgrades.

B. DEFINITIONS:

1. Earth excavation shall mean the excavation, removal, stockpiling and/or satisfactory disposal away from the site of all materials other than rock, ledge, or topsoil within the limits set forth or as directed.
2. Materials to be excavated shall include organic and inorganic silts, peat, clays, sand, gravel; pavement; cobbles and boulders less than 1 cubic yard in volume; soft or disintegrated rock; brick and concrete masonry; and all other obstructions not included in other sections.
 - a. Materials unsuitable for use as backfill are defined as organic matter, silt, peat or any combination thereof having unsuitable in-situ bearing properties; and all materials that are too loose or saturated to provide satisfactory bearing when used for backfill.
 - b. If unsuitable material is encountered at the depths indicated on the Drawings for bottom limit of excavation, the Contractor shall immediately notify the Owner and shall not proceed further until instructions are given.

2.0 MATERIALS

A. TREES AND SHRUBBERY:

1. Existing trees and shrubbery to remain shall be protected from injury.
2. Except as otherwise directed, cutting and trimming of existing trees will not be permitted.
3. All existing trees to remain and any which may be damaged by construction operations shall be boxed and protected, and all such protection shall be maintained until completion of the work.

B. EXISTING UTILITIES

1. Excavation and backfill operations shall be done in such a manner as to prevent cave-ins of excavations or the undermining, damage, or disturbing of existing utilities and structures or of new work.
2. Any excavation improperly backfilled or where settlement occurs shall be reopened to the depth required, then refilled with new materials and compacted and the surface restored to the required grade and condition, at no additional cost to the Owner.
3. **The Contractor shall "Call-Before-You-Dig" (811) at least 72 hours prior to any excavation.**

C. PROPERTY:

Any damage due to excavation, backfilling, or settlement of the backfill, or injury to persons or damage to property occurring as a result of such damage, shall be the responsibility of the Contractor. All costs to repair such damage, in a manner satisfactory to the Owner, shall be borne by the Contractor, at no additional cost to the Owner.

3.0 CONSTRUCTION METHODS

A. SURFACE PREPARATION:

1. Existing pavements and base courses shall be cut and removed to obtain sound, vertical edges at the lines indicated for trenching.
2. The Contractor shall remove and dispose of the existing pavements in the course of his work. Care shall be taken so that existing pavement material is not mixed with excavated material to be used for backfill.

3. The Contractor shall protect existing pavements and base courses which are to remain, and repair any damage caused by excavations at no expense to the Owner.
4. Existing pipelines, utilities and structures shall be protected by the Contractor so that no damage occurs during excavation operations.
5. All material shall be kept a safe distance back from the edge of excavation to avoid overloading of the sides of excavation and prevent slides or cave-ins.

B. CONTROL OF WATER:

1. All excavations shall be kept dry at all times, and all construction work shall be performed in the dry, unless otherwise authorized or directed by the Owner. See section entitled "Dewatering Control and Diversion of Water" for the specific requirements governing dewatering of excavations.
2. Grading shall be accomplished to prevent surface water from flowing into excavations.
3. Accumulated water shall be removed by pumping or other approved methods.
4. The pipelines shall not be used for trench draining.
5. The work shall be protected from flooding at all times.
6. Any material which becomes unsuitable as a result of the Contractor's lack of dewatering or improper dewatering shall be removed by the Contractor and replaced with earth borrow, as directed and approved by the Owner at no additional expense to the Owner.

C. EXECUTION:

The contractor shall submit to the Owner for approval, a list of equipment to be used for trench compaction. Trench compaction shall be accomplished with an 8-10 ton (min.) Ho-Pack or other method to be approved by the Owner prior to the start of construction.

The Contractor shall:

1. Excavate to the lines and grades shown on the Drawings. Excavations shall be accurately graded to allow satisfactory construction of the work.
2. Immediately after excavation to the indicated trench bottom, compact exposed bottom surface with two (2) passes of an approved plate-type vibrating compactor.
3. Trench bottom shall again be thoroughly compacted just prior to the installation of pipelines.

4. Perform manual excavation adjacent to and below existing structures and utilities to prevent disturbance of or damage to the existing structures and utilities.
5. Provide temporary support to existing subsurface utilities as approved by the respective utility companies or to other facilities adjacent to or cross through excavation at no additional expense to the Owner.
6. Take all necessary measures to prevent lateral movement or settlement of the existing structures or work in progress.
7. Provide sheeting and shoring in all locations where required to maintain excavations in a safe condition and to meet all safety regulations.
 - a. The Owner may order additional sheeting and shoring where in his opinion safety regulations are being violated or the excavation is not in a safe condition.
 - b. There will be no additional payment for providing sheeting, shoring or trenching box.
 - c. No excessive trench widths will be allowed to avoid the use of sheeting.
 - d. Shoring and bracing shall be left in place as directed by the Owner to maintain stability as backfilling progresses.
8. If an excavation is made deeper or wider than that shown on the Drawings, unless directed in writing by the Owner, there will be no extra payment for such unauthorized excavation. Backfill of all unauthorized excavations shall be made by the Contractor with either selected materials from excavations or from earth borrow, as directed by the Owner, and at no expense to the Owner.

3.2 BACKFILLING

A. PREPARATION:

1. The Contractor shall:
 - a. Complete all excavation and pipe laying operations.
 - b. Perform all required tests before backfilling.
 - c. Encase pipe in concrete as required by the Owner.

- d. Begin backfilling as soon as practical with approved backfill material or earth borrow as directed.

B. EXECUTION:

1. All backfill placed in trenches containing non concrete encased pipe below a level 12 inches above the top shall be placed in layers not exceeding 4 inches in loose depths. This material shall be excavated material (except as authorized), compactable, not frozen and free from clods of earth stones larger than 2 inches in diameter or unsuitable materials. This backfill shall be termed Selected Backfill and shall be deposited uniformly on both sides of the pipe and shall be thoroughly compacted by tamping under and on each side of the pipe to provide uniform support around the pipe, free from voids.
2. The balance of backfill in all trenches and excavations shall be compactable materials as approved, not frozen and without stones larger than 8 inches in their greatest dimension. It shall be spread in layers not exceeding 12 inches in loose depth, and each layer shall be compacted by at least 4 passes of an approved plate-type vibratory compactor. All trench backfilling shall be carefully placed to avoid disturbance of new work and if existing structures. The moisture content of backfill shall be such that proper compaction will be obtained. Puddling or jetting of backfill with water will not be permitted.
3. Backfilling against masonry or concrete shall only be done when approved. Backfilling against concrete other than encased pipelines within 7 days after placement will not be allowed. Symmetrical backfill loading adjacent to structures shall be maintained. During backfilling and compacting operations, care should be exercised so that equipment used will not overload the structures. Backfill adjacent to structures shall be placed in layers not more than 9 inches in loose depth, and each layer thoroughly compacted with at least 4 passes of an approved plate-type vibratory compactor.
4. The Owner shall check all pipelines during backfilling operations for displacement. Poor alignment and displaced or defective pipes shall be corrected or replaced at no additional cost to the Owner.

3.3 COMPLETION

1. After backfilling excavation, the Contractor shall maintain the filled surface in good condition, with a smooth level, leaving adjacent surfaces undisturbed. Any subsequent settling shall be immediately repaired by the Contractor and such maintenance shall be provided by the Contractor for the remainder of the Contract, at no additional expense to the Owner.
2. The finished surfaces of filled excavations shall be compacted, and reasonably smooth and free from surface irregularities. Subgrade upon which either topsoil is to be placed or pavements are to be constructed shall be maintained in a satisfactory condition until

the finish courses are placed. The storage or stockpiling of materials on finished subgrade will not be permitted.

3. Prior to paving upon the subgrade, all soft or unsuitable material shall be removed and replaced with suitable material from excavation or earth borrow, as approved by the Owner. All low sections, holes, or depressions shall be brought to the required grade with approved material. The entire subgrade shall be shaped to line, grade and cross section and thoroughly compacted.
4. All unsuitable material or backfill material in excess of the amount required for the satisfactory completion of backfill operations shall be removed and disposed of by the Contractor off the site.

4.0 MEASUREMENT AND PAYMENT

Payment for earth excavation for pipelines, appurtenances and structures shall be included in the prices bid for those sections referring to pipe and appurtenances and shall not be measured for payment. Earth excavation shall be all earth excavation required for the installation of all work to the designed grade under the piping, manholes and structures. (Designed depth or grade is equal to 18" below pipes and structures or as shown on the plans).

Where ordered by the OWNER, excavation in excess of the designed depth shall be paid for by the Contract Unit Price per cubic yard referred to as "Trench Excavation and Backfill in Excess of Design Depth". In pipeline trenches and services, measurement shall be the depth greater than designed grade and width, according to the Contract Drawings centered on the pipe. In excavation for structures, measurement shall be the depth greater than designed grade and structure width plus two feet.

It is the intent that no separate payment will be made for any earth excavation on the project except for "Trench Excavation and Backfill in Excess of Design Depth", "Test Pit Excavation" or "Gas Trench Work". Payment for all other excavation and appurtenant or associated work is considered to be included in the price of the pipelines, services, appurtenances and structures.

Any quantities of rock excavation encountered in trench work as defined and classified by the Owner in accordance with the section entitled "Rock Excavation and Disposal" and of boulders one (1) cubic yard or greater in volume, will be paid for under the appropriate item.

Backfill of material utilizing borrow as defined under the section entitled "Gravel Fill" shall not be measured or paid for under the above item.

3.03 ROCK EXCAVATION AND DISPOSAL

1.0 DESCRIPTION

The work covered under this Section includes the furnishing of all labor, equipment and materials, and performing all operations in connection with rock excavation and subsequent gravel refill as indicated on the drawings, and all incidental work in accordance with the drawings and specifications, and as directed. The work shall also include providing and compacting gravel bedding from off-site sources for refilling depressions resulting from removal of boulders; the satisfactory removal and disposal of the excavated rock materials; and the protection of existing pipelines, structures and appurtenant facilities, and the contract work.

2.0 MATERIALS

Rock excavation shall include the excavation, removal and disposal of all boulders and detached rock fragments 1 cubic yard or more in volume; and all ledge rock, the removal of which, in the opinion of the Owner, can be accomplished only by drilling and splitting mechanically or by hand or by blasting. Boulders of less than 1 cubic yard in volume, and all soft or disintegrated rock which can be removed without the manipulation noted above, shall be classified as "Earth Excavation"

Where boulders are exposed on the sides of or in the bottom of excavations, they shall be wholly or partially removed, as specified or directed. Boulders shall be removed to not less than the lateral trench width indicated, not less than 12 inches outside structure walls, and to not less than 12 inches below the underside of pipes.

Unauthorized excavations in rock, or excavations made beyond or below the indicated or directed limits, shall be refilled with compacted gravel bedding, as directed by and at no expense to the Owner.

Whenever rock is encountered, it shall be stripped of the overlying material in sections as directed by the Owner. Drilling through the existing overburden and blasting prior to stripping will be allowed only at locations approved in advance by the Owner.

Rock excavation for future connections:

Whenever provisions for a future connection are placed in the sewer lines or structure in an area of rock excavation, the rock shall be removed from a distance of at least 2 feet or more as directed, horizontally from the end of the pipe or branch stub and in the direction of the future connection.

If directed by the Owner, the Contractor shall also drill a hole in rock not less than 3 feet but not more than 5 feet beyond the outer limit of his excavation and to a point lower than the level of the branch and shall explode a charge therein adequate to shatter the rock sufficiently to permit its subsequent removal by others when any future connection is made. The Contractor will be allowed the equivalent of 1/2 cubic yard of rock excavation for such additional drilling and blasting at the location of each future connection so treated.

3.0 CONSTRUCTION METHODS

Blasting within 20 feet of existing utilities shall be allowed only when approved by the utility companies and shall be performed by an experienced blasting subcontractor using small charges and delays.

Where blasting is permitted by the Owner, the Contractor shall take every precaution to protect persons, property and the work. The Contractor, shall conduct all blasting operations so that at no time shall the peak particle velocity, as monitored at selected locations, exceed 2.0 inches per second or such lower limits as may be established by regulatory authorities, utility and/or property Owner. Blasting operations shall comply with all Federal state and local regulations, and requirements of the Owners of utilities adjacent to the work area and to any further regulations which the Owner may deem necessary in this respect. The Contractor shall be held liable for all injury to persons the damage to property and the work caused by blast or explosion.

Rock encountered within areas where blasting is not permitted shall be removed by drilling and splitting mechanically or by hand, or by any other approved method not requiring the use of explosives. No separate payment will be made for such methods, and all associated costs shall be included in the contract unit price bid for rock excavation.

Backfilling of Rock Trench shall be done in accordance with the Section "Trench Earth Excavation and Backfill". All excavated material, suitable for backfilling and in excess of the requirements for earth excavation, shall be used to backfill rock excavated areas.

Blasting must be accomplished in accordance with the provision set forth in the current edition of the "Manual on Storage, Transportation and Use of Explosives and Blasting Agents," available from the State Fire Marshal's Office.

4.0 MEASUREMENT AND PAYMENT

Where rock is encountered, it shall be uncovered but not excavated until measurements have been made by the Owner, unless in the opinion of the Owner satisfactory measurements can be made in some other manner.

Rock excavation and disposal will be measured in cubic yards in its original position, prior to excavation, computed to a depth of twelve inches below the new pipe, new conduit or new structure or as directed in writing by the Owner. If rock excavation is directed to be performed to less than

the payment width and/or depth indicated, the Contractor will be paid only for the actual quantities of rock so directed. The measurement will not include unauthorized excavations.

Boulders or detached rock fragments which are 1 cubic yard or more in volume will be measured individually, and the volume computed from the average dimensions taken in three representative directions.

Additional material from off-site sources needed as backfill shall be measured for payment as specified under "Gravel Fill".

Measurement of rock excavation for purposes of payment shall be as follows, regardless of the actual amount of rock removed.

Rock excavation in trenches shall be measured to a width, according to the "trench width" designated on the Contract Drawings, centered on the pipe from the original surface of the rock to a plane one foot below the underside of the conduit/pipeline. If the rock does not extend the full width or depth of the trench, only the actual amount of rock removed within the described measurement lines shall be allowed.

In excavation for structures, rock excavation shall be measured as having sides located twelve (12) inches beyond the outside of the manhole structure to the original surface of the rock.

The unit prices for payment under this Section shall include full compensation for all labor, materials, tools and equipment required for rock excavation and placing of the excavated material in spoil banks or elsewhere, as required.

Payment for rock excavation shall be by the cubic yard, measured as described above.

3.04 GRAVEL FILL

1.0 DESCRIPTION

This material shall be used to replace unsuitable backfill material as specified in Section 3.02 of these contract specifications, and elsewhere as indicated on the plans, required by the specifications or as ordered by the Owner. It shall consist of gravel conforming to the requirements of these specifications.

2.0 MATERIALS

Gravel fill shall conform to the requirements of Article M.02.01 of the Standard Specifications.

3.0 CONSTRUCTION METHODS

Gravel shall be placed and compacted in accordance with Article 3.04.03 of the Standard Specifications.

4.0 MEASUREMENT AND PAYMENT

Gravel fill will be measured in place after compaction by the Owner. It shall be placed as directed by the Owner.

The pay limits for width of gravel fill shall be according to the trench width as specified on the Contract Drawings. No payment will be made for gravel fill outside the specified payment limits.

This item is for replacement of excavated rock, for replacement of excavated material deemed unsuitable for refill by the Owner, and for miscellaneous fill where directed by the Owner.

Payment for this item will be the contract unit price per cubic yard bid for "Gravel Fill", which price shall include all materials, tools, equipment, labor and incidental work for providing, placing and compacting gravel fill as specified.

3.05 REMOVAL OF PAVEMENT

1.0 DESCRIPTION

Pavement removal shall consist of the satisfactory removal of pavements as required for construction of improvements under this contract. It shall include asphalt, bituminous concrete pavements and bases as required by the contract or as directed by the Owner.

3.0 CONSTRUCTION METHODS

Pavement shall be cut to neat lines as required by the contract drawings, or as directed by the Owner. Pavement shall be excavated to the dimension shown on the plan. Excavated material shall be disposed of as directed by the Owner and in the same manner as described for surplus material elsewhere in these specifications. No sections or pieces of pavement shall be used in trench backfill and pavement shall be kept separate from other excavated material.

4.0 MEASUREMENT AND PAYMENT

This item will not be measured for payment.

No separate payment will be made for removal of bituminous pavement, and all costs in connection therewith shall be included in the unit price bid for pipeline and appurtenances as it applies.

3.07 PROCESSED GRAVEL BASE

1.0 DESCRIPTION

The Contractor shall furnish and place processed gravel base to the compacted thickness shown on the contract drawings, prior to placement of permanent pavement.

The processed gravel base shall be placed on the prepared subgrade prior to placing of the pavement.

2.0 MATERIALS

Gravel base shall conform to the requirements of Subarticle M.05.01,1, M.05.01-2, M.05.01-3 of the standard specifications, Form 817.

3.0 CONSTRUCTION METHODS

Gravel base shall be placed and compacted in accordance with Article 3.04.03 of the Standard Specification - Form 817.

4.0 MEASUREMENT AND PAYMENT

The payment limits are as specified on the contract drawings. No payment shall be made for processed gravel placed outside the specified payment limits.

Payment for processed gravel base shall be the contract unit price per cubic yard for compacted gravel base placed to the lines and grade specified. Processed Gravel Base, shall include all costs of furnishing and placement of processed gravel base, preparation of subgrade and all other materials, labor and equipment necessary to satisfactorily complete the work.

3.08 GRAVEL / SAND PIPE BEDDING

1.0 DESCRIPTION

The work under this item shall consist of the furnishing, placing and compacting of gravel pipe bedding in accordance with these Specifications and the details shown on the Contract Drawings at the locations shown thereon or as directed by the Owner.

2.0 MATERIALS

Gravel pipe bedding shall be provided from off-site sources in the quantities required for completion of the work and shall be as approved by the Owner.

Solid Drainage Culvert:

Gravel pipe bedding for solid storm drainage shall be gravel conforming to the requirements of Article M.02.01 of the Standard Specifications.

Water Mains and Services:

The gravel/sand bedding for water mains and services shall consist of well graded sand, or sandy soil in accordance with Article M.08.03.1 of Form 817. All of the material shall pass the 3/8" sieve and not more than 10 percent passing the #200 sieve.

When groundwater is encountered crushed stone in accordance with these specifications may be used with prior approval from the Owner.

3.0 CONSTRUCTION METHODS

Gravel/Sand Pipe Bedding shall be placed in accordance with the details and at the locations indicated on the Contract Drawings or as directed by the Owner. It shall be placed carefully and evenly on both sides of the structure/pipe/conduit being cushioned.

It shall be deposited in layers not over 6 inches thick and each layer shall be thoroughly compacted to not less than 95% of the specified ASTM maximum dry density before the addition of other layers.

All percentages of compaction specified herein shall be related to the maximum dry density as established by Method D ASTM Designation D1557-70 and verified in the field by ASTM Designation D1556-68, D2167-66, or an approved nuclear density testing device. Prior to placing, at least one (1) laboratory test shall be made on a representative sample of each of the fill and backfill materials proposed to be furnished for the earthwork operations; to determine gradation and moisture-density characteristics. These tests will be made by a testing laboratory selected by the Owner and at the Owner's expense.

Field density tests to determine the actual in-place densities being attained will be made at the Owner's expense and in sufficient quantity to determine that the required compaction is being attained. All retesting necessitated by failure of the backfill to comply with the minimum percent of compaction shall be performed by a laboratory selected by the Owner and the re-testing cost will be paid for by the Contractor.

4.0 MEASUREMENT AND PAYMENT

No separate measurement of payment shall be made for this item and all costs in connection therewith shall be included the appropriate piping unit price for which this item is being provided.

3.10 CRUSHED STONE

1.0 DESCRIPTION

The Contractor shall furnish and place all crushed stone only when directed by the Owner.

2.0 MATERIALS

Crushed Stone shall be 3/4 inch in size conforming to the requirements of Article M.01.01. Crushed stone gradation table of the standard specifications, Form 817. Crushed stone shall be free from dust, foreign matter and organic material.

3.0 CONSTRUCTION METHODS

Crushed Stone Bedding shall be placed in accordance with the details and at the locations indicated on the Contract Drawings or as directed by the Owner. It shall be placed carefully and evenly on both sides of the structure/pipe/conduit being cushioned.

It shall be deposited in layers not over 6 inches thick and each layer shall be thoroughly compacted to not less than 95% of the specified ASTM maximum dry density before the addition of other layers.

4.0 MEASUREMENT AND PAYMENT

Crushed stone will be measured in place after compaction by the Owner. It shall be placed as directed by the Owner.

Payment for this item will be made at the Contract unit price per cubic yard bid for “Provisional Item: Crushed Stone”, which price shall include all materials, tools, equipment, labor and incidental work for providing, placing and compacting crushed stone as specified.

The payment limit for crushed stone shall be as specified on the Contract Drawings. No payment shall be made for crushed stone outside the specified payment limits.

Crushed stone pipe bedding will not be measured for separate payment under this item but the cost shall be included in the applicable pipe item.

4.01 TEMPORARY PAVEMENT FOR TRENCH

1.0 DESCRIPTION

Pavement which has been removed for the installation of utilities and appurtenances or other underground installations shall be replaced upon the completion of the trench backfilling and compaction with temporary compacted bituminous concrete in accordance with the limits and dimensions shown on the contract drawings, specified herein, or as directed by the Owner.

Temporary pavement shall be placed at the end of every work day for state roads and every week for local roads, or as designated by the owner. Painted pavement markings disturbed during construction shall be re-established every work day for state roads and every week for local roads after temporary paving.

Temporary pavement shall remain in place until trench settlement is complete for a minimum of 30 days, unless otherwise directed by the Owner.

Processed gavel base to the thicknesses shown on the construction plans must be installed at the time of temporary paving.

2.0 MATERIALS

Bituminous concrete shall conform to the requirements of Section M.04 of the Standard Specifications for surface course, Class 1.

Processed gravel base is specified in Section 3.07 of these Contract Specifications.

3.0 CONSTRUCTION METHODS

Temporary pavement shall be placed on the specified thickness processed gravel base. Temporary pavement shall have a compacted thickness as noted above, to the limits shown on the contract drawings, specified herein or as directed by the Owner.

Pavement shall be placed in accordance with the applicable provisions of Section 4.06 of the Standard Specifications.

4.0 MEASUREMENT AND PAYMENT

This work shall be measured for payment by the actual number of square yards, installed to the specified thickness within the pavement payment limits. The pavement payment limits are specified on the Contract Drawings. Temporary pavement installed outside the payment limits will not be measured for payment and only the actual number of square yards, installed to the specified thickness within the pavement payment limits will be measured for payment. Subbase will not be measured for payment under this item.

Work under this Item will be paid for at the Contract unit prices per square yard for "Temporary Pavement for Trench", completed in place and accepted. These Contract unit prices shall include the cost of the bituminous material, maintenance of the construction to include the additional materials and labor required due to settlement, and all other materials, tools, equipment, labor and work necessary for or incidental to the completion of the item.

Overlap or redundant temporary paving from one day to the next caused by the contractor's misjudgment as to the amount of trench work to be completed in one day will not be measured for payment.

Payment for processed gravel base is specified under the respective sections for these items in these Contract Specifications.

4.02 PERMANENT PAVEMENT REPLACEMENT FOR TRENCH

1.0 DESCRIPTION

Permanent Pavement Replacement for Trench shall consist of compacted bituminous concrete, constructed to the required compacted thickness on processed gravel base in the locations and in accordance with the details shown on the Contract drawings or as directed by the Owner.

2.0 MATERIALS

1. Tack coat shall consist of RC-O oil.
2. Bituminous concrete binders and surface courses shall conform to Article M.04 of the Standard Specifications for the classes specified on the Contract Drawings.
3. Processed gravel base is specified in Section 3.07 of these Contract Specifications.

3.0 CONSTRUCTION METHODS

Temporary pavement shall be removed, **the existing pavement cut back 12 inches from the edge of disturbed trench** in straight lines parallel to the edges of the roadway using approved power tools, and the processed gravel base placed and compacted as specified in these Contract Specifications and in accordance with the details shown on the Contract Drawings.

Tack coat shall be applied to the edge of existing pavement where it meets the new pavement.

State Roads: The nine (9") inch compacted thickness bituminous pavements shall be placed in 5 lifts, in accordance with the requirements of Article 4.06.03 of the Standard Specification.

4.0 MEASUREMENT AND PAYMENT

This work shall be measured for payment by the actual number of square yards, installed to the specified thickness within the pavement payment limits. The pavement payment limits are specified on the Drawings. Permanent pavement installed outside the payment limits will not be measured for payment and only the actual number of square yards, installed to the specified thickness within the pavement payment limits will be measured for payment. Subbase will not be measured for payment under this item.

Payment for Permanent Pavement Replacement for Trench shall be made at the Contract unit price per square yard. Said price shall include all costs of preparation of existing and temporary pavement, binder coat, furnishing and placement of bituminous concrete and all other materials, labor and equipment necessary to satisfactorily complete the work. The unit price shall include the cost of replacing line striping, raising utility boxes and structures including sanitary or storm

sewer appurtenances to the finish grade of the road, and includes the cost of resetting manhole and catch basin frames and covers installed under this contract.

Payment for processed gravel base and temporary pavement replacement is specified under the respective sections for these items in these Contract Specifications.

4.04 BITUMINOUS CONCRETE LIP CURBING

1.0 DESCRIPTION

The work under this Section shall be the construction of bituminous concrete lip curbing consisting of machine laid bituminous concrete constructed on the edge of the pavement in conformance with these specifications to the dimensions and details as shown on the Contract Drawings at the locations directed by the Owner.

2.0 MATERIALS

Materials for this work shall conform to the requirements of Article M.04.01, Class 3, and any other applicable Articles.

3.0 CONSTRUCTION METHODS

Construction methods shall conform to the requirements of Article 8.15.03, and any other applicable Articles.

4.0 MEASUREMENT AND PAYMENT

Bituminous Concrete Lip Curbing shall be measured for payment by the Owner by the linear foot installed in place as directed by the Owner. Bituminous curbing not in the immediate area of construction which is damaged by the Contractor's negligence shall not be measured for payment.

Payment for installing bituminous lip curbing shall be at the Contract unit price bid per linear foot for "Bituminous Concrete Lip Curbing". Said price shall include installation of machine or hand laid curbing, preparation of roadway, bituminous concrete base and surface course under curbing, processed gravel, tack coat and all materials, labor and equipment necessary to satisfactorily complete the work.

4.10 PAVEMENT MILLING – STATE ROADS

1.0 DESCRIPTION

This work under this Section includes furnishing all labor, equipment and materials and performing all operations in connection with milling the existing pavement surface on Salem Turnpike (Route 82) at locations specified on the Contract Drawings.

3.0 CONSTRUCTION METHODS

A neat straight longitudinal saw cut (2 inch depth) shall be made at the extent of each side of the surface to be milled.

The Contractor will mill a minimum of 2” in depth along the longitudinal saw cuts to the extent required as shown on the Contract Drawings.

Prior to paving, the milled area will be swept and tack coated with CSS-1H at .035 gals. per square yard.

The longitudinal saw cut joint will be painted with an acceptable tack coat material.

The milled surface will be paved with Class 1 Bituminous Concrete to a compacted 2” depth using a self-propelled paving machine covering the entire milled area.

After the final pavement has been placed and compacted, the joints will be sealed with 85/100 asphalt or an approved substitute.

All milling shall conform to Connecticut DOT requirements.

4.0 MEASUREMENT AND PAYMENT

Payment limits for milling are shown on the State Road Trench Detail Sheet.

This work shall be paid for at the Contract unit price per square yard for “Pavement Milling - State Roads”, which price shall include all materials, equipment, tools, labor and work incidental to or necessary for the completion of the work.

4.11 OVERLAY ON MILLED SURFACE – STATE ROADS

1.0 DESCRIPTION

Overlay shall consist of a one course two (2) inch compacted thickness bituminous concrete surface course, constructed over a milled surface for state roads.

2.0 MATERIALS

Bituminous concrete surface course shall be HMA S0.5 in accordance with Section M.04 of DOT Form 817.

3.0 CONSTRUCTION METHODS

Overlay shall be placed in accordance with Article 4.06.03 of the Standard Specifications and in accordance with the details shown on the Contract Drawings.

Contact surfaces of curbings, gutters, manholes, etc., shall be painted with a thin uniform coat of hot asphalt cement, or asphalt cement, or asphalt cement dissolved in naphtha, just before the material is placed against them.

4.0 MEASUREMENT AND PAYMENT

This work shall be measured for payment by the number of square yards, installed to the specified thickness as specified on the Drawings. The payment limits will be as specified on the drawings.

Work under this Item will be paid for at the Contract unit prices per square yard for “State Road: Overlay on Milled Surface”, completed in place and accepted. These Contract unit prices shall include the cost of the bituminous material, maintenance of the construction to include the additional materials and labor required due to settlement, and all other materials, tools, equipment, labor and work necessary for or incidental to the completion of the item.

A tack coat and replacement pavement markings as needed shall be provided and shall be incorporated in this unit price.

The Contractor shall include in the cost of this construction all resetting to grade of existing or newly constructed grates, frames, covers, valve boxes, access covers, and other items which normally must have a fixed relationship to finished grade.

The Contractor shall include in the cost of construction cleaning and sweeping the milled surface and applying tack coat prior to installation.

5.13 RIPRAP

1.0 DESCRIPTION

Where called for on the plans or directed by the Owner, the Contractor shall place Riprap in conformity with the type and compacted thickness shown on the plans.

2.0 MATERIALS

Subgrade shall conform to the requirements of Article 2.09.03 of the Standard Specifications. Stone for Riprap shall conform to the requirements of Article M.12.02. Filter fabric shall conform to the requirements of Article M.08.01-26 of the Standard Specifications.

3.0 CONSTRUCTION METHODS

Subgrade shall be accurately shaped prior to placing of riprap in accordance with construction methods detailed in Article 2.09.03 of the Standard Specifications.

Riprap shall be placed in accordance with construction methods specified in Article 7.03.03 of the Standard Specifications

Filter fabric shall be placed in accordance with construction methods specified in Article 7.55.03 of the Standard Specifications.

4.0 MEASUREMENT AND PAYMENT

This work will be measured for payment by the number of cubic yards of Riprap accepted and measured in place to the thickness, length and width shown on the Contract Drawings for riprap lines channel and slope paving.

This work shall be paid for at the contract unit price per cubic yard for the type of riprap indicated and complete in place.

Excavation necessary to form the riprap splash pads and berm to the line, grade and typical cross-section shown on the plan shall be paid for under this item. Pervious filter fabric under riprap (where required) as shown on the drawings shall be paid for under this item. Gravel base under riprap as shown on the drawings shall be paid for under this item.

6.01 INSTALLATION OF WATER MAIN

1.0 DESCRIPTION

Work under this section covers furnishing and installation of water mains, valves, fittings and appurtenances as indicated on the drawings, for a complete and proper installation and functioning water system.

The Contractor shall coordinate all water work with the Controlling Water Authority. The Controlling Water Authority, hereafter referred to as the Water Department is Norwich Public Utilities (NPU).

Submit manufacturer's data sheets and certification of compliance with specifications for all pipes, valves, fittings and appurtenances.

2.0 MATERIALS

All materials specified shall be new and unused and meet the requirements specified herein and as required and approved by the controlling water authority.

- A. Water Main Pipe: Ductile iron pipe shall meet the requirements of ANSI/AWWA C151/A21.51. Joints shall be rubber gasketed and restrained, manufactured in accordance with ANSI/AWWA C111/A21.11. Pipe shall be supplied with the standard exterior bituminous coating of either coal tar or asphalt base approximately one mil thick. The interior shall be cement lined, double thickness, in accordance with ANSI/AWWA C104/A21.4, and pipe shall be of thickness Class 52. Pipe shall be manufactured by United States Pipe & Foundry, Griffen Pipe, Clow Pipe, Atlantic States Cast Iron Pipe, McWane or approved equal.
- B. Iron body resilient-seated gate valves shall meet the requirements of ANSI/AWWA C509. They shall have mechanical joint ends meeting the requirements of ANSI/AWWA C111/A21.11 and O-ring stem seals. Valves shall be wrench-operated, right-opening (clockwise) and rates at a working pressure of 200 psi. Resilient-seated gate valves shall be manufactured by Kennedy Valve, Clow Corporation, Mueller Company, or approved equal.
- C. Valve boxes shall be heavy pattern cast-iron, cast in two telescoping sections of sliding construction, and of such length as will provide, without extension, the required cover. The lower section shall be at least 5-1/4 inches inside diameter, belled or domed at the bottom to fit over the work. The upper section shall have a flanged top section to interlock in paving and shall fit over the lower section and shall be flanged at its base to provide proper bearing. Covers shall be at least 6 inches in diameter, shall fit flush with the top, and have the word "Water" cast thereon in raised letters. Valve boxes shall be of good quality cast-iron free from all defects in material and workmanship, and shall be coated with coal-tar pitch enamel or other approved coating. Valve boxes shall be "Buffalo" type suitable for the size valve on which

they are used and shall be as manufactured by Buffalo Pipe and Foundry, Mueller Company, J.B. Clow & Sons, Bingham & Taylor, Inc., or equal.

- D. Connecting sleeves shall be mechanical compression sleeve couplings designed for the specific types of pipe to be joined and shall be manufactured by the Dresser Manufacturing Division or approved equal.
- E. Fittings and Bends: Ductile Iron fittings and bends shall meet the requirements of ANSI/AWWA C153.A21.53, with mechanical joints with Corten bolts in conformance with ANSI/AWWA C111.A21.11. Fittings shall have an inside lining of cement-mortar in accordance with ANSI/AWWA C104.A21.4. Exterior coating shall be the standard Bituminous coating of either coal tar or asphalt base approximately one mil thick and shall be manufactured by United States Pipe & Foundry, Griffen Pipe, Clow Pipe, Atlantic States Cast Iron Pipe, McWane or approved equal.
- F. Concrete for thrust blocks and pipe encasement shall be as specified in Article M.03.01 - Class "A" of the Standard Specifications.
- G. Retainer glands are required for all mechanical joints on valves and fittings. Retainer glands shall be "Megalug" ductile iron manufactured by EBAA Iron, Inc. or approved equal.

Ductile iron retainer glands shall be used on all fittings connecting to new and existing ductile iron pipe; retainer glands shall not be used with existing cast-iron piping. Concrete thrust blocks shall be required at all fittings in connection with existing cast iron piping.

- H. Manual air release valves shall be provided to the details shown at the locations indicated or as directed. Air release assemblies shall be designed for a working pressure of 200 psi. Corporation stop shall be Mueller Model No. H10045 or approved equal. Brass pipe elbows shall be extra strong weight with threaded ends. Curb stop shall be Mueller Mark II Oriseal Valve No. H10284 with drain or approved equal. The curb stop shall be supported with a short length of 2" brass cut to fit the contours of the pipe and stop. One cubic foot of coarse sand shall be provided at each air release assembly as detailed on the drawings.
- I. Tapping sleeves and valves for ductile iron pipe shall consist of a two piece cast iron sleeve tee with mechanical joint ends, a flanged end on the branch and a tapping type gate valve with one flanged and one mechanical joint end. The gate valves shall be iron body, bronze mounted, double disc, parallel seat valves with non-rising stems and shall meet the requirements of ANSI/AWWA C500. Gate valve shall have O-ring stem seals and shall be wrench-operated, right-opening (clockwise) and rated at working and hydrostatic test pressure of 200 psi and 400 psi respectively. The contractor shall be responsible for determining the outside diameter of the pipe to be tapped prior to installation of the tapping sleeve. Tapping sleeves and valves shall be manufactured by the Mueller Company or approved equal.

- J. Capping of mains shall include cutting the pipe, if necessary, and providing flanged, fused, mechanical joint or welded caps as shown on the Contract Drawings. Ductile iron mains shall be a retainer gland with blow off (if applicable) and concrete thrust support. All capping methods shall meet or exceed the pressure rating for the water main.
- K. Plugging of existing water mains piping shall include cutting the existing pipe and plugging the pipe end with brick and mortar forming a solid watertight bulk head at least 12 inches thick.

3.0 CONSTRUCTION METHODS

- A. Trench excavation and backfill shall meet the requirements of the trench excavation section of this specification. Pipe bedding shall conform to the Gravel/Sand Pipe Bedding section of these specifications.
- B. Ductile iron pipe, ductile or cast iron fittings and valves shall be installed as detailed and directed, and in full accordance with AWWA C600, manufacturer's recommendations, and accepted best practice - with the below listed qualifications and clarifications. A laying schedule shall be submitted for approval by the Owner. The methods employed in performing the work and all equipment, tools and machinery used in handling material and executing any part of the work shall be subject to the approval of the Owner before the work shall be started and, whenever found unsatisfactory, shall be changed and improved as required by the Owner. All equipment, tools and machinery used shall be maintained in a satisfactory working condition.
- C. It shall be the responsibility of the Contractor to coordinate his work schedule, where required, with that of the Water Department. At all installations where connection is to be made by gating off sections of main which are normally open, the excavation shall be made the day before work is to start on the installation with all materials on hand. The work shall then be done as quickly as possible so that normal operation of the system will be interrupted a minimum amount of time. Any required operating of valves for this work will be performed by personnel of the water department, and ample notice shall be given to the water department so that a minimum of one day's notice may be given to any user whose service will be discontinued for any reason.
- D. A minimum of 18" shall be maintained between the outer edges of any newly installed water main/water services and existing sanitary sewers and storm drains whenever possible. At sanitary sewer and storm drain crossings, the water pipe shall be centered on the crossing so both joints of the water pipe will be as far from the sewer as possible. If the minimum separating distance cannot be maintained, then at least one of the utilities must be encased in concrete in accordance with the methods indicated on the plans and in the specifications herein.
- E. Proper implements, tools and facilities shall be provided and used by the Contractor for the safe and convenient performance of the work. All pipe, fittings and valves shall be lowered into the trench with a suitable device that will not damage protective coatings and lining.

Under no circumstances shall water main material be dropped or dumped into the trench. Any damaged lining, coating or wrapping shall be satisfactorily repaired or replaced.

- F. Every precaution shall be taken to prevent foreign matter from entering the pipe while it is being placed in the line. If the pipe laying crew is unable to prevent foreign matter from entering the pipe, the Owner may require that heavy, tightly woven canvas bag of suitable size be placed over each end and left there until the connection is to be made to the adjacent pipe. At times when work is not in progress, open ends of pipe and fittings shall be securely closed so that no trench water, earth or other substances will enter the pipe or fittings. If necessary, the line shall be swabbed or flushed out to remove all foreign matter prior to testing.
- G. Before joining lengths or push-on joint pipe, the inside of the bell and the outside of the spigot shall be thoroughly cleaned to remove oil, grit excess coating and other foreign matter. No pipe joints shall be covered in any way until the joints have been inspected.
- H. Pipe shall be laid with bell ends being in the direction of laying unless otherwise directed by the Owner. When pipe is laid on a grade of 10 percent or greater, laying shall start at the bottom and shall proceed upward with the bell ends of the pipe upgrade.
- I. The cutting of pipe for installing valves, fittings or closure pieces shall be done in a neat manner without damage to the pipe or cement lining and so as to leave a smooth end at right angles to the axis of the pipe.
- J. Joining of mechanical joint valves, fittings and accessories shall be provided in accordance with the recommendations of the manufacturer. The mechanical joint valves and fittings shall be suitable for jointing with the pipe with which they are used and the Contractor shall provide, at no additional expense to the Owner, all necessary adapters for the proper jointing of the pipe, fittings, valves and appurtenances. The last 8 inches of the outside of the spigot end of pipe and the inside of the bell of the mechanical joint shall be thoroughly cleaned to remove all oil, grit and other foreign matter from the joint. When assembling joint, it is essential that the gland be brought into place and bolts tightened in a manner to insure the maintaining of the same space between the gland and the face of the flange at all points around the socket. The range of bolt torque in making up joints shall be as recommended by the manufacturer of the mechanical joints.

Overstressing of bolts will not be permitted; if effective sealing is not obtained at the recommended maximum bolt torque, the joint shall be disassembled, thoroughly cleaned and reassembled.

All mechanical joints shall be furnished with retainer glands.

- K. The maximum deflection at ductile iron pipe joints to accommodate changes in horizontal or vertical alignment shall be 80% of AWWA standards or manufacturer's recommendation;

whichever is less. Where bends are called for on the plans, a standard bend may be used with any additional deflection required accomplished by deflecting joints on adjacent pipes.

- L. Bends shall be used only at the locations shown on the plans or at other locations as approved by the Owner.
- M. Underground gate valves shall rest on reinforced concrete or masonry units. Valve boxes shall not transmit shock or stress to the valve and shall be centered and plumb over the wrench nut of the valve. The valve box cover shall be flush with the surface of the finished pavement or such other level as may be directed.
- N. Valves set with a depth to operating nut greater than 6 feet shall be equipped with extension stems providing an operating nut depth of 4.5 feet. Extension stems shall be installed such as to preclude accidental disconnection from the valve, shall stand plumb and shall be supported at the upper end with a centering device attached to the stem or valve box.
- O. Thrust restraint shall be provided at all ductile iron fittings. Restraint for 45 degree ductile iron bends or greater shall be in the form of both cast-in-place concrete thrust blocks and retainer glands. Concrete shall be mixed and placed in accordance with Section 9.01. Thrust restraints for shallower bends and other fittings shall be retainer glands.
- P. The Contractor shall provide at no additional cost appropriate facilities for testing, flushing and disinfection the water mains. Such facilities may include, but not be limited to corporation stops, copper tubing, caps, plugs and thrust restraint. Corporation stops shall be manufactured of solid bronze and all pipe threads shall be in conformance with AWWA C800. All corporation stops shall be model H-10003, or similar as manufactured by Ford, Mueller or approved equal. Any of these facilities which are of a temporary nature shall be removed by the Contractor after use.
- Q. All bolts, nuts, rods, and miscellaneous connecting pieces not provided with an approval factory coating shall be given two (2) coats of bitumatic 50 after installation.

R. CONNECTING NEW WATER MAIN TO EXISTING WATER MAIN

Connections of new work to existing appurtenances shall be provided in accordance with Section 6.03 of these Specifications and printed recommendations of the respective manufacturers and as approved by the Owner.

S. WATER SERVICE CONNECTION

Water Service Connections shall be provided in accordance with Section 6.02 of these Specifications and printed recommendations of the respective manufacturers and as approved by the Owner.

T. HYDROSTATIC TESTING

Pressure testing and leakage testing shall be carried out in accordance with the appropriate paragraphs of Section 4 of ANSI/AWWA C600 with the following clarifications and qualifications.

1. Unless otherwise permitted the testing shall be performed after either backfilling or partially backfilling the completed pipelines or sections thereof. Before testing, the Contractor shall submit, in writing, to the Owner, his proposed method of testing the completed pipeline. Testing shall begin only after approval by the Owner or the proposed methods. Testing of water mains shall be performed by the Contractor at his expense as witnessed by the Water Department for approval. Any required coordination with the Water Department shall be the responsibility of the Contractor.
2. All new sections of water main shall be hydrostatically tested at a pressure of 200 pounds per square inch for a period of at least two hours. "Pressurization" and "air removal" shall be accomplished as specified in Section 4.1.2 and 4.1.3 of ANSI/AWWA C600. After the test pressure is applied, any defective pipe, fitting, valve or hydrant discovered in consequence of this pressure test shall become the property of the Contractor and shall be removed from the job site and replaced at the Contractor's expense with sound material. The test shall be repeated until satisfactory to the Owner.
3. A leakage test shall be conducted concurrently with the pressure test. The Contractor shall furnish the gage, pump, connections and all other necessary apparatus and shall furnish the necessary assistance to conduct the test.
4. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 psi of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water.
5. No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{SD\sqrt{P}}{133,200}$$

Where: L=Allowable leakage in gallons/hour
S=Length of pipe tested in feet
D=Normal pipe diameter in inches
P=Average test pressure during leakage test in pounds per square inch

6. When testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gal/hour/inch nominal valve size will be allowed.
7. When hydrants are in the test section, the test shall be made against the closed hydrant valve.
8. If any test of pipe laid discloses leakage greater than that specified above, the Contractor shall, at his own expense, locate and repair the defective materials until the leakage is within the specified allowance.
9. All visible leaks shall be repaired regardless of the amount of leakage.
10. Any temporary thrust restraint required for testing sections of completed water main installation and later removed as directed by the Owner shall be provided by the Contractor at no additional cost to the Owner.

U. DISINFECTION

1. Disinfection shall be carried out in accordance with ANSI/AWWA C651-92 under the direction of the Owner, using the continuous feed method described in Section 5.2 of this standard. Where appropriate, the Contractor shall follow the disinfection procedures of Section 9. Use of calcium hypochlorite granules prior to flushing will not be required.
2. The Contractor shall submit, to the Owner for prior approval, the type of chlorine to be used, the disinfection experience of the workers, and the procedures and equipment to be used by the Contractor. The Contractor shall be warned that water main disinfection should be only accomplished by specially trained personnel and that the project's water mains are vital to the safety and wellbeing of the municipality. State Health Department approval of the water main disinfection is to be received by the Contractor in a timely manner so as to quickly place the water mains into service.
3. Mains shall be completely flushed after the hydrostatic test until all evidence of sediment is removed. A hypochlorite solution shall be applied, with a proper regulating device at the beginning of the pipe section to be disinfected, through a corporation stop in the newly laid pipe. Hypochlorites utilized in this work shall meet the requirements of AWWA B300.

Water from the existing distribution system entering the newly laid pipe shall be controlled to flow slowly during the application of hypochlorite. The rate of hypochlorite application shall be in such proportion to the rate of water flowing through the pipe that the treated water entering the newly laid pipe will have a concentration of chlorine residual of 25 parts per million.

4. When disinfecting newly laid water pipe involving more than one valved section, all valves shall be operated while the pipeline is filled with disinfection water. Hydrants and other appurtenances shall also be operated for disinfection.
5. There shall be a retention period of at least 24 hours and preferably more. The non-sporeforming organisms shall be destroyed and the chlorine residual after the retention period and at the extremity of the pipe shall be at least ten parts per million.
6. The Contractor shall be responsible for satisfactory disposal of all flushing water and chlorinated water at no additional expense to the Owner. The Contractor shall give thorough consideration to the impact of highly chlorinated water flushed to the receiving environment. If there is any question that damage may be caused by a chlorinated waste discharge (to fish life, plant life, physical installations, or other downstream water uses of any type), then an adequate amount of reducing agent should be applied by the Contractor to water being disposed of in order to neutralize thoroughly the chlorine residual remaining in the water.
7. After the mains have been flushed clean, samples of the water contained in the mains shall be arranged by the Contractor to be taken by an approved testing laboratory for testing and analysis specified in U. of this section. Only after the analyses of the samples are approved by the Owner shall the mains be made part of the water system. In the event that positive reports of contamination are received, the Contractor shall flush and re-chlorinate the mains as many times as may be obtained from corporation cocks with copper gooseneck assemblies installed as directed along the mains to be disinfected. The taking of samples from hoses or fire hydrants will not be allowed. After samples have been collected the gooseneck assembly may be removed and retained for future use.
8. All connections between new mains and existing mains shall be made only after water sample testing of the new water main has been approved by the City of Norwich Department of Public Utilities Testing Laboratory. The Contractor must maintain an air gap between the new work and old work per the requirements of Section 19-13-B38b of the State of Connecticut Public Health Code which states "An air gap will be required between all potable water lines and equipment or systems which may be subject to contamination". The Contractor shall be responsible for their means and methods of providing and maintaining the the required air gap between the new and old work.
9. Where connections are to be made between new water mains and existing water mains after disinfection and flushing are completed, new materials shall be swabbed with a suitable hypochlorite solution.

V. REQUIRED WATER QUALITY TESTS

1. The Contractor shall be required to take samples and have testing performed by an approved testing laboratory for a minimum of the following items:

1. Total Coliforms
 2. Volatile Organics (EPA 501-502)
2. The Contractor shall take the required water samples after completion of flushing and disinfection of the water mains as directed by the Owner. The Contractor shall be responsible for coordination and delivery of the samples to the approved testing laboratory. The Contractor shall also bear the costs of all water quality testing and analysis expenses by the approved laboratory. The Owner may also require at his expense additional testing if deemed necessary.

4.0 MEASUREMENT AND PAYMENT

Measurement

- A. Water main will be measured for payment by the linear foot of the particular size and type in place and accepted. Measurement will be along the centerline of pipe and fittings.
- B. Bends will be measured for payment, by the unit of the particular type and size in place and accepted.
- C. Caps or plugs shall be measured by the unit of the particular size in place and accepted for caps or plugs greater than or equal to 4" diameter.
- D. Tees shall be measured for payment by the unit of the particular size in place and accepted. Tees for hydrant assemblies shall not be measured for separate payment.
- E. Valves will be measured for payment by the unit of the particular type and size in place and accepted.
- F. Reducers will be measured for payment by the unit of the particular type and size in place and accepted.
- G. Connecting sleeves and couplings shall not be measured separately for payment, but the cost shall be included in the water main piping.
- H. Thrust restraint will not be measured for separate payment.
- I. Air Release Valves will be measured for payment by the unit of the particular type, in place and accepted. Insulation, protective covering, and heat tracing shall not be measured separately for payment, but shall be included in other items.

- J. Hydrostatic testing, flushing, disinfection, and water quality testing of new water mains and appurtenances and providing temporary facilities for same will not be measured separately for payment.
- K. Pipe bedding shall not be measured separately for payment, but the cost shall be included in the water main piping.
- L. Connection to an existing water main or water service greater than 2” in diameter shall be measured in accordance with Section 6.03 of these Specifications.
- M. Trench excavation, pavement removal and backfill, pipe bedding, testing and disinfection, protection of trees and shrubs and other appurtenant work will not be measured for payment, but the cost shall be included in the water main piping.
- N. Costs for the temporary support for utility poles or underground utilities as needed to perform the required work shall not be paid for separately. All costs associated with the temporary support of utility poles or underground utilities per the applicable Utility Company specifications shall be included in the unit prices for water main piping.

Payment

The Contract unit prices shall include all labor, material and equipment necessary to furnish and install the pipe, pipe bedding and required fittings, joint restraint, trench excavation and backfill, sheeting or shoring, concrete thrust blocks, laying, jointing, cleaning, and testing the pipe, backfilling, pipe bedding, disposal of excess excavated materials, restoration of physical features on grade such as fences, and signs, and all incidental work necessary for a complete project for which separate payment is not provided in other items.

- A. Water main will be paid for at the Contract unit price per linear foot for the particular size and type of water main piping.
- B. Bends shall be paid for at the contract unit price for each bend of the particular type and size specified.
- C. Caps and plugs shall be paid for at the contract unit price each for capping and/or plugging as appropriate of the particular size for caps or plugs greater than or equal to 4” diameter.
- D. Tees shall be paid for at the contract unit price each for Tee as appropriate of the particular size tee. Tees for hydrant assemblies shall be paid for under the unit price for “Fire Hydrant Assemblies”.
- E. Valves including valve boxes and masonry units will be paid for at the Contract unit price each for each valve of the particular size specified. Gate valves for Hydrant assemblies shall be paid for under the unit price for “Fire Hydrant Assemblies”.

- F. Reducers shall be paid for at the contract unit price each for Reducer as appropriate of the particular size.
- G. Connecting sleeves and couplings shall not be paid for separately, but shall be included in the cost of the piping.
- H. Thrust restraint will not be paid for separately, but shall be included in the cost of the fitting.
- I. Air Release Valves shall be paid for at the contract unit price each for Air Release Valve, including valve box and cover, and insulation, protective covering, and heat tracing as applicable.
- J. Hydrostatic testing, flushing, disinfection, and water quality testing of new water mains and appurtenances and providing temporary facilities for same will not be paid for separately, but shall be included in the cost of the piping.
- K. Pipe bedding shall not be paid for separately, but the cost shall be included in the water main piping.
- L. Connection to existing water mains or services greater than 2" in diameter shall be paid for in accordance with Section 6.03 of these Specifications.
- M. Trench excavation will not be measured for payment and the cost thereof is included in the above payment item.
- N. Costs for the temporary support for utility poles and underground utilities as needed to perform the required work shall not be paid for separately. All costs associated with the temporary support of utility poles and underground utilities per the applicable Utility Company specifications shall be included in the unit prices for water main piping.
- O. No payment will be made under this item for ductile iron pipe specified or indicated to be paid for under other items of work.
- P. Temporary and permanent pavement, and processed gravel, required for pavement restoration shall be paid for according to its particular unit price.

6.02 INSTALLATION OF WATER SERVICES

1.0 DESCRIPTION

Work under this item shall consist of providing water connections and reconnections for all water services less than or equal to two (2) inches in diameter.

Submit manufacturer's data sheets and certification of compliance with specifications for all pipes, valves, fittings, tubing, stops and appurtenances.

1.02 RELATED WORK

- A. Trench Excavation and Backfilling Section in this Specification
- B. Water Main Section of this Specification

2.0 MATERIALS

Unless otherwise specified by the Owner, the pipe, fittings, valves, tubing, stops, and appurtenances to be utilized in this work shall be new and unused, shall be of the types and materials specified herein and shall meet the requirements specified herein. All materials found during the process of the work to have cracks, flaws, or other defects will be rejected by the Owner. All defective materials shall be promptly removed from the work site and replaced at no additional expense to the Owner.

- A. Corporation Stop: The corporation stop shall be bronze and have an AWWA tapered thread (CC) inlet, and the outlet shall be for copper tubing. The 1" corporation stop shall be H10003 manufactured by the Mueller Company or approved equal.
- B. Polyethylene pressure pipe for water services shall meet the requirements of AWWA C901 (Latest Revision). The material must be listed and approved for potable water in accordance with NSF Standard 14 & 61.
- C. Copper tubing for water service lines shall be Type K seamless copper tubing. Requirements for copper tubing shall meet the latest revision of ASTM Specification B88. Polyethylene pressure pipe for water services shall meet the requirements of AWWA C901 (Latest Revision).
- D. The curb stops shall be Mueller Mark II Oriseal Valve No. H-15209 or approved equal.
- E. The curb box shall be arch pattern base, Buffalo type curb box with a stationary rod, 2½" diameter. Box slide type, North American Standard, shall be adjustable from 4' to 5'. Curb box shall be Bingham and Taylor Fig. No. 4901 or approved equal.

- F. Fittings for use with copper piping shall be brass and bronze conforming to American Standards Association Standard B16.18, or B16.22. Copper by copper couplings shall be as manufactured by Mueller Company, or approved equal. Polyethylene fittings shall be rated for 200 psi applications minimum. Polyethylene fittings shall conform to ASTM Standard Specification for Pressure Rated Pipe ASTM-2737.
- G. Connecting sleeves or couplings shall be designed for the specific types of pipe to be joined and shall be rated for 200 psi working pressure minimum.

3.0 CONSTRUCTION METHODS

- A. Trenching and backfilling shall meet the requirements of Section Entitled - Trench Excavation and Backfill.
- B. Hydrostatic testing and disinfection shall meet the requirements of the Water Main section of this specification.
- C. The Contractor shall be responsible for all materials and work required for water service installations, but he shall coordinate all activities with the Water Department. When temporary discontinuance of service is required to accomplish service replacement or reconnection the Contractor shall give ample notice to the Water Department so that they can notify the customer one working day in advance of the discontinuance. He shall have all materials on hand necessary to do the work and shall perform as much excavation and installation of new materials as possible in advance to minimize the time water will be shut off.
- D. The interior of the pipe shall be thoroughly cleaned of foreign matter before being lowered into the trench and shall be kept clean during laying operations by plugging or other approved method. Pipe shall not be laid in water, or when trench or weather conditions are unsuitable for the work. When work is not in progress, open ends of pipe and fittings shall be securely closed so that no trench water, earth or other substance will enter the pipes or fittings and no seal or plug shall be removed until trench is pumped completely dry. All defective and unsound material found to be defective before or after installation will be rejected and shall be replaced by the Contractor with new sound and approved material, at no additional expense to the Owner. All connections shall only be made at such times and in a manner approved by the Owner.
- E. The exact locations of connections shall be as directed by the Owner. In addition to the requirements specified herein, the piping and appurtenances shall be provided in accordance with the printed recommendations of the respective manufacturer and as approved. Piping, stops, fittings, specials and associated work shall be provided as indicated, as specified and as necessary to conform with the lines, grades and arrangement as directed by the Owner and for the proper and satisfactory fitting and completion of the work, and as directed. The Contractor shall be responsible for verifying in the field all lines, grades, dimensions and conditions affecting the work, and for the correct fitting of all parts of the water service lines and

appurtenances in the completed water services prior to the ordering or fabrication of the various materials. Deflections from a straight line or grade, as required by vertical curves, horizontal curves or offsets shall be made using fittings or specials as indicated and/or as directed; the types of fittings or specials used shall be as approved. No connections or joints shall be covered in any way until the connections have been inspected.

- F. Tapping ductile iron pipe, installation of corporation stops, installation of curb stops and curb boxes and appurtenances work shall be done in conformity with these specifications, the manufacturer's recommendations and accepted best practice and shall be subject to approval by the Owner.
- G. Curb box sleeves shall be installed around the tops of all curb boxes in areas with Portland cement or bituminous concrete surfaces.
- H. Copper tubing and polyethylene (P.E.) tubing shall be installed as shown on the plans, and in conformity with accepted best practice.
- I. Testing and disinfection of new and replacement water services shall be performed as part of this work and shall be described in the - Water Main section of this specification.
- J. The water service stubs shall be capped and suitably braced and/or wired to protect and cap from displacement due to soil or water pressures, such as would be encountered in exfiltration testing.

4.0 MEASUREMENT AND PAYMENT

Measurement

- A. Each "Water Service: Connection" shall consist of tapping the water main, furnishing and installing a curb stop and making connection to new service tubing and shall include fittings, adapters and other appurtenant material and work. Water service connections will be measured for payment by the actual number of such units of work provided for the "Water Service Connection" item.
- B. "Water Service: Curb Stop & Box" will be measured by the actual number of curb stops and curb boxes furnished and installed including appurtenant material and work, for the "Water Service: Curb Stop & Box" item, regardless of size.
- C. "Water Service: Piping" will be measured by the actual number of linear feet of PE or copper tubing furnished and installed (or for each service installation), including appurtenant work for the "Water Service: Piping" items according to the applicable installation method and location.

- D. Trench excavation, pavement removal and backfill, pipe bedding, testing and disinfection, protection of trees and shrubs and other appurtenant work will not be measured for payment.
- E. Caps or plugs shall not be measured for separate payment.
- G. All maintenance and protection of traffic and traffic control associated with these items shall be included in the price for Maintenance and Protection of Traffic or Traffic Control Officers as applicable.
- H. Costs for the temporary support for utility poles or underground utilities as needed to perform the required work shall not be paid for separately. All costs associated with the temporary support of utility poles or underground utilities per the applicable Utility Company specifications shall be included in the unit prices for water service piping.
- I. Surface restoration including bituminous drives, walks and curbing, pavement repair, processed gravel and landscaping shall be measured for payment according to those particular items as outlined in other Sections of these Specifications.

Payment

- A. Water service connections will be paid for at the Contract unit price each "Water Service: Connection" which price shall include tapping water main, corporation stop, connection to new service tubing and all materials, equipment, tools and labor incidental thereto.
- B. Curb stops and boxes will be paid for at the Contract unit price each "Water Service: Curb Stop & Box", regardless of size, which price shall include curb stop, curb box and all materials, equipment, tools and labor incidental thereto.
- C. Temporary water service piping will be paid for at the Contract unit price per linear foot for "Water Service: Piping" for each service installation according to the applicable installation method.
- D. Trench excavation and backfill, pipe bedding, testing and disinfection, protection of trees and shrubs and other appurtenant work will not be measured for payment.
- E. Caps or plugs shall not be paid for separately.
- G. All maintenance and protection of traffic and traffic control associated with these items shall be included in the price for Maintenance and Protection of Traffic.
- H. Costs for the temporary support for utility poles or underground utilities as needed to perform the required work shall not be paid for separately. All costs associated with the temporary support of utility poles or underground utilities per the applicable Utility Company specifications shall be included in the unit prices for water service piping.

- I. Surface restoration including bituminous drives, walks and curbing, pavement repair, processed gravel and landscaping shall be paid for according to the unit prices designated for those particular items as outlined in other Sections of these Specifications.

6.03 CONNECT TO EXISTING WATER MAIN

1.0 DESCRIPTION

This item shall include the connection of new water pipe to existing water mains at locations shown on the plans. Specifically, connection of new water main pipe to existing water main will occur at the project limits (Salem Turnpike (Route 82) and Leffingwell Road).

2.0 MATERIALS

Materials and construction methods shall conform to the applicable requirements of Section 6.01 of this specification.

3.0 CONSTRUCTION

Where connections are to be made between new water mains and existing water mains, the Contractor shall take all precautions to prevent contamination when making connections to existing potable water lines. No trench water, mud or other contaminating substances shall be permitted to enter the pipeline.

All connections between new mains and existing mains shall be made only after water sample testing of the new water main has been approved by the City of Norwich Department of Public Utilities Testing Laboratory. Per the requirements of Section 19-13-B38b of the State of Connecticut Public Health Code which states “An air gap will be required between all potable water lines and equipment or systems which may be subject to contamination”. Connections of new work to existing appurtenances shall be provided in accordance with the printed recommendations of the respective manufacturers and as approved by the Owner.

4.0 MEASUREMENT AND PAYMENT

Salem Turnpike (Route 82)

Payment will be made for connection to existing water main at the applicable contract lump sum bid. Said payment shall include all labor, tools, materials and equipment necessary to complete the work including but not limited to excavation and backfill, sheeting and bracing, dewatering, disconnecting existing piping, temporary capping, furnishing and installing new piping, fittings, reducers, tees, couplings, special pieces required for closure, temporary and permanent thrust restraint, furnishing, placing and compacting bedding and backfill, temporary and permanent paving (when applicable), processed gravel, loam and seed (where applicable) and traffic control (not including traffic control persons) to complete the connection to the existing water main.

Leffingwell Road Connection

Payment for the Leffingwell Road connection shall include all items listed above, 45° bend and 24” gate valve.

6.04 HYDRANT ASSEMBLY

1.0 DESCRIPTION

Work specified in this section shall consist of furnishing and installing new fire hydrant assemblies and the removal and disposal of existing fire hydrant assemblies at the location shown on the plans of where directed by the Owner.

Submit manufacturer's data sheets and certification of compliance with specifications for all hydrants, valves, fittings and appurtenances.

2.0 MATERIALS

Unless otherwise specified by the Owner, the hydrants, pipe, fittings, valves and appurtenances to be utilized in this work shall be new and unused, shall be of the types and materials specified herein and shall meet the requirements specified herein. All materials found during the progress of the work to have cracks flaws or other defects will be rejected by the Owner. All defective materials shall be promptly removed from the work site and replaced at no additional expense to the Owner.

A. Hydrants:

- 1 **Within the City of Bozrah:** shall be dry-barrel, post-type hydrants, with compression shut-offs which open with the pressure. Hydrants shall meet the requirements of ANSI/AWWA C502. They shall have a main valve opening of 5-1/4 inches and have a 6-inch mechanical joint inlet. Bury lengths shall be a minimum of 4-1/2 feet. Two (2) 2-1/2 inch hose and one (1) 4-1/2 inch pumper nozzles shall be provided in standard nozzle arrangement 2-1/2" and 4-1/2" outlets nozzles threads shall meet the requirements of ANSI B26, "National Standard Fire Hose Coupling Screw Threads" and meet *Bozrah* standard thread size. Hydrants shall be of break flange construction, shall be ***RIGHT opening (clockwise)*** and shall have O-ring seals. Interior and exterior coatings shall meet the requirements of ANSI/AWWA C502. The second shop coat of primer is to be red in color. Hydrants shall receive two field coats of red paint meeting the approval of the Owner.

In addition, that portion of each hydrant below finish grade shall be given a coating of hot bitumastic material, equal to that used for exterior coating of pipe and fittings, before installation. A drain outlet is required. Hydrants shall be furnished with barrels of sufficient length to allow connection to proposed water mains, regardless of depth, and 18 inch nozzle height above grade. Use of extension sections on deep installations will not be allowed. Hydrants shall be Mueller Centurion.

- 2 **Within the Town of Montville:** shall be dry-barrel, post-type hydrants, with compression shut-offs which open with the pressure. Hydrants shall meet the requirements of ANSI/AWWA C502. They shall have a main valve opening of 5-1/4

inches and have a 6-inch mechanical joint inlet. Bury lengths shall be a minimum of 4-1/2 feet. Two (2) 2-1/2 inch hose and one (1) 4-1/2 inch pumper nozzles shall be provided in standard nozzle arrangement 2-1/2" and 4-1/2" outlets nozzles threads shall meet the requirements of ANSI B26, "National Standard Fire Hose Coupling Screw Threads" and meet *Sprague* standard thread size. Hydrants shall be of break flange construction, shall be **LEFT opening (counter-clockwise)** and shall have O-ring seals. Interior and exterior coatings shall meet the requirements of ANSI/AWWA C502. The second shop coat of primer is to be red in color. Hydrants shall receive two field coats of red paint meeting the approval of the Owner.

In addition, that portion of each hydrant below finish grade shall be given a coating of hot bitumastic material, equal to that used for exterior coating of pipe and fittings, before installation. A drain outlet is required. Hydrants shall be furnished with barrels of sufficient length to allow connection to proposed water mains, regardless of depth, and 18 inch nozzle height above grade. Use of extension sections on deep installations will not be allowed. Hydrants shall be Mueller Centurion.

- B. Ductile iron pipe (D.I.) mechanical joint fittings, gate valves, valve boxes, joint restraint and exterior and interior coatings shall meet the requirements specified under Section 6.01 of this specification.
- C. Precast concrete masonry units shall meet the requirements of ASTM Designation: C139.
- D. Three-quarter inch crushed stone shall meet the gradation requirements specified for Stone and Gravel in Article M.01.01 of the Standard Specification.
- E. Capping existing water mains shall include cutting the existing pipe and installing a mechanical joint cap with retainer gland and providing concrete thrust support.

3.0 CONSTRUCTION METHODS

Fire hydrants shall be provided and located or removed where shown on the plans or as directed by the Owner. Installation or removal shall be as detailed on the plans and as defined in these specifications.

- A. Hydrants shall stand plumb and shall have their nozzles parallel with, or at right angles to the curb, with the pumper nozzle facing the curb. Hydrants shall be set to the established grade with a minimum 4-1/2 foot bury and with nozzles at least 18 inches, but not more than 24 inches above the ground.
- B. Hydrant tees with restrained glands and joint restraint shall be utilized for all hydrant installations per these specifications and as delineated on the Contract Drawings.
- C. Gate valves and hydrant bases shall rest on concrete masonry units.

- D. Particular attention shall be made to insure that hydrant drain ports are free from debris before placement of 3/4" crushed stone.
- E. A burlap bag shall be securely placed over each new hydrant until the hydrant is put into service. When the hydrants are put into service the burlap bags shall be removed and disposed off-site.
- F. Testing of new fire hydrants shall be carried out as described in Section 6.01 of this specification.
- G. The Contractor shall furnish and deliver to the Owner sufficient maintenance kits to maintain all hydrants furnished under this contract. Maintenance kits shall include packings, O-rings, gaskets, valve rubbers, thrust washers, thread lube, operating nut oil, nuts and bolts.

The Contractor shall also furnish any special tools required to maintain or operate the hydrants furnished under this contract.

- H. The cutting of pipe for closure pieces shall be done in a neat manner without damage to the pipe or cement lining and so as to leave a smooth end at right angles to the axis of the pipe.
- I. Joining of mechanical joint valves, fittings and accessories shall be provided in accordance with the recommendations of the manufacturer. The mechanical joint valves and fittings shall be suitable for jointing with the pipe with which they are used and the Contractor shall provide, at no additional expense to the Owner, all necessary adapters for the proper jointing of the pipe, fittings, valves and appurtenances. The range of bolt torque in making up joints shall be as recommended by the manufacturer of the mechanical joints.

Overstressing of bolts will not be permitted; if effective sealing is not obtained at the recommended maximum bolt torque, the joint shall be disassembled, thoroughly cleaned and reassembled.

All mechanical joints shall be furnished with retainer glands.

4.0 MEASUREMENT AND PAYMENT

Construction of hydrant assemblies shall be measured for payment as units installed and accepted in place.

Payment shall be made for "Fire Hydrant Assembly" at the applicable contract unit price for each installation. Said payment shall include furnishing and installing the pipe and all valves, valve boxes, fittings, tees, joint restraints, sheeting, shoring and bracing, excavation and backfill, furnishing, shaping and compacting pipe bedding, temporary and permanent paving, and the cost

of all labor, materials, equipment and all incidental work necessary to complete the construction of the Fire Hydrant Assemblies item.

The hydrant gate valve, valve box, tee off main pipe, and piping to main shall be included in this item and not measured or paid for separately.

Payment for all rock excavation within the payment limits of the hydrant piping trench shall be made at the contract unit price for Rock Excavation and Disposal.

Removal and disposal of existing fire hydrant assemblies shall not be paid for separately, and the cost of all labor, materials, equipment and all incidental work necessary to complete the removal shall be included in the “Fire Hydrant Assembly” price.

6.10 INSULATED WATER MAIN

1.0 DESCRIPTION

The Contractor shall furnish and install pre-insulated water main, bends and fittings where vertical ground cover in the vicinity of Trading Cove Brook to the top of the pipe is less than 4'-6".

1.1 SUBMITTALS

- A. Submit the following shop drawings:
 - 1. Pre-insulated pipe, fittings and bends

2.0 MATERIALS

- A. Ductile Iron Water Main Pipe: Shall meet the requirements of Section 6.01 of these Specifications. Pipe shall be thickness Class 52. Joints shall be rubber gasketed and restrained. Restrained joints must be suitable for above ground applications.
- B. Ductile Iron Fittings and Bends: Shall meet the requirements of Section 6.01 of these Specifications.
- C. Insulation: Insulation for pipe, fittings, and bends shall be a minimum 2" thickness of rigid foam insulation in accordance with the following:
 - 1. Shall be polyisocyanurate or polyurethane foam
 - 2. Minimum Density: 2.0 lb/ft³ (ASTM D1622)
 - 3. Compression Strength: 18 to 25 psi
 - 4. Minimum Closed Cell Content: 90%
 - 5. Water Absorption: 4.0% by volume (ASTM C272)
 - 6. Thermal Conductivity (K value): 0.19 Btu-in/ft²-hr-F° (ASTM C518)
 - 7. Protective Cover: Shall be locked seam spiral wound 22 ga. galvanized steel.
 - 8. Field applied fitting covers and field joint kits shall be furnished by the Manufacturer.

3.0 CONSTRUCTION METHODS

Insulation and protective cover for pipe shall be factory installed and delivered to the project site. Insulation for fitting and bends may be factory applied or field applied.

The insulation manufacturer shall furnish field installation kits for pipe joints, bends, and fittings.

Insulated pipe, fittings, and bends shall be installed in accordance with Section 6.01 of these Specifications and with the Manufacturers requirements.

The Contractor shall be solely responsible for the layout, measurements, and coordination of insulated pipe, bends, and fittings.

4.0 MEASUREMENT AND PAYMENT

Insulated water main shall be measured and paid for under the following lump sum item:

- Water Work: Insulated 24" Water Main at Trading Cove Brook

Said lump sum payment shall include all work outlined in the Contract Documents including the water main, fittings, bends, foam insulation (main & fittings), protective cover, field kits as required, coordination between all manufacturers, shipping, and delivery, excavation, backfill, shoring, startup, and all other labor, materials, equipment and tools necessary for the completion of the above items as shown on the Contract Drawings and specified herein.

6.11 ABANDON EXISTING WATER MAIN WITH CDF

1.0 DESCRIPTION

The Work under this Section includes abandonment of existing 24" water main in place beneath Leffingwell Road to the limits as shown on the Drawings, or otherwise directed by the Engineer.

2.0 MATERIALS

Control Density Fill (CDF) is used as a low strength, self-consolidating fill material for confined spaces which can be easily excavated at a later time. CDF is characterized by a high maximum slump of 8 inches. CDF is not a structural concrete and shall not be used in such applications. CDF may be used as a trench backfill, structural backfill, pipe bedding, or pipe filling for abandonment in place. CDF shall consist of Portland cement, aggregates, water and fly ash. Chemical admixtures and other mineral admixtures may be used. The actual mix proportions and flow characteristics shall be determined by the producer of the CDF to meet site conditions. Mix designs and performance tests shall be submitted to the Owner for approval.

CDF MIX DESIGN (PER CUBIC YARD) FOR MANHOLES

- A. Cement 25 – Min / 50 – Max lbs
- B. Fly Ash (Type F) 50 - 150 lbs
- C. Total Mix Water 35 gallons Max.
- D. Stable Air Content 20 - 30%

CDF shall be hand excavatable and shall contain aggregate no larger than 3/8 inch and the 3/8 inch aggregate shall comprise no more than 20 percent of the total aggregate content.

Mortar shall conform to Article M.11.04.

Brick shall conform to Article M.08.02.

3.0 CONSTRUCTION METHODS

Wherever existing water main is to be abandoned in place, the Contractor shall empty the pipe of all water, fill the pipe full with CDF and cap the ends. Placement of the CDF shall be by means of a tremie pipe or other method that shall enable uniform placement of the CDF throughout the length of the pipe being abandoned. The Contractor shall demonstrate the entire pipe to be abandoned has been filled prior to the installation of end caps. Validation shall include placement of a predetermined volume of CDF into the pipe to be abandoned.

Adjustment of the mixture to achieve improved placement characteristics shall be through the use of chemical admixtures. No increase in water content or water to cement ratio will be allowed.

CDF shall be tested for plastic unit weight. Plastic unit weight shall not deviate more than +10 percent of theoretical unit weight shown on the approved mix design. Unit weight shall be determined in accordance with ASTM C138. CDF's consistency shall be tested by the slump method. The slump shall be measured in accordance with ASTM C143.

All excavation, shoring, dewatering, disposal of unsuitable material, backfilling, and compaction required for completion of this Work shall conform to the requirements of Section 6.01

The Contractor shall notify the Engineer twenty-four (24) hours in advance of abandoning the section of main and shall provide safe access for the inspection of the process.

4.0 MEASUREMENT AND PAYMENT

Payment will be made for Abandoning Existing Water Main with CDF at the applicable contract lump sum bid for the particular location as delineated on the Contract Drawings.

Said payment shall include all labor, tools, materials and equipment necessary to complete the work including but not limited to excavation and backfill, sheeting and bracing, dewatering, disconnecting existing piping, filling the pipe with CDF, cutting and permanent capping of the pipe associated with abandonment of the pipe, special pieces required for closure, temporary and permanent thrust restraint, furnishing, placing and compacting bedding and backfill, temporary and permanent paving (when applicable), processed gravel, loam and seed (where applicable) and traffic control (not including traffic control persons) to complete abandonment of the section of existing water main.

Any scope of Work identified in this Section that is not specifically address by a separate bid item shall be considered incidental to the Work completed under this Section. Costs incurred for completion of these incidental Work items are considered including in the unit cost bid for completion of the Work in this Section.

6.12 TEMPORARY RESIDENTIAL WATER SERVICE

1.0 DESCRIPTION

The Work under this Section consists of the construction, installation, disinfection, maintenance and removal of temporary water service during construction of this project to existing NPU customers within the project limits. Temporary residential water service system shall be used to allow connection of the new water transmission main to the existing water transmission main on Leffingwell Road. It is the intent that the Contractor maintain water service during the entire period of construction activities to all current customers in the project area.

The Contractor shall submit a plan for any temporary water systems to the Owner, for review and approval prior to beginning Work on such system. The plan must identify the type of system, the method of construction and the maintenance and operation procedures to be used. The plan must identify service to each existing customer. The Contractor shall obtain and secure any agreements between the Contractor and property owner regarding access and use of private property.

The Contractor shall also submit the name and phone number of a contact person and at least one alternate who shall be available on a twenty-four (24) hour basis for repair and/or maintenance of the temporary water system. In the event that the Contractor fails to repair and/or maintain the temporary system and NPU is required to perform repairs and/or maintenance, all costs associated with said repairs and/or maintenance shall be deducted from the Contract amount.

2.0 MATERIALS

The Contractor shall use only those materials and equipment listed in this Section to supply temporary water service. Temporary water service shall be supplied under the service criteria outlined in this Section. All equipment used must be specifically designed and properly disinfected for the storage, handling, and delivery of potable water.

Service shall be supplied to each structure presently served by NPU. All services to structures shall be valved to allow individual control of service to each structure.

- A. Temporary bypass pipe shall be drawn from water main stocks that are for use in pipe projects involving fresh potable water. Temporary bypass pipe shall be PVC, galvanized steel, HDPE, or other material subject to acceptance by the Owner and having a minimum working pressure of 200 psi. Pipe sizes shall be shown on the Contract Drawings.
- B. Fittings shall be suitable for and compatible with the pipe material and class with which they are used.
- C. Service hose/piping shall have a minimum working pressure of 200 psi. Service hose/piping shall be minimum 3/4" diameter. Hose jackets shall be abrasion resistant and be capable of being driven over by vehicles periodically without short term effects. Hose

or pipe linings shall be made of a material that will not have an adverse effect on the taste or odor of the water.

- D. Temporary fire hydrants (if needed) shall have 4½-inch NST (National Standard Threads) nozzles. Outlets nozzle threads shall meet the requirements of ANSI B26, "National Standard Fire Hose Coupling Screw Threads" and meet **Norwich** standard thread size. Maintain caps on temporary hydrants.
- E. Materials for ramps over bypass piping at driveways and other such areas shall be bituminous concrete, compacted stone dust, or manufactured wheel ramps. Ramps shall be weather resistant and have an anti-slip surface.

The primary water feeder pipe shall be a minimum of two inches (2") in diameter.

3.0 CONSTRUCTION METHODS

- A. Written notices to all affected property owners are required a minimum of 48 hours prior to transition to the temporary water system.
- B. In general the temporary bypass water piping may be laid in the road shoulder or gutter line adjacent to the curb or edge of pavement. Contractor shall secure the pipe to the ground via sand bags, stakes or other method to prevent excessive movement or disruption to traffic.
- C. At locations where the pipe may be subject to minimal traffic, such as driveways, the pipe may be adequately protected by ramping with compacted stone dust, temporary pavement with bond release paper, manufactured wheel ramps, or other suitable method accepted by the Owner. Provisions shall be made to not disturb stormwater flow and minimize washout during storm events.
- D. Temporary bypass pipe 2" diameter or larger crossing roadways shall be installed in a trench to a suitable depth and shall not block or otherwise impede access. Existing pavement shall be saw cut and excavated to the depth required and temporary pavement provided per the pavement repair construction details. Sleeves if required by the contractor shall be provided for the temporary bypass piping. After the temporary bypass system is remove the trench shall be saw cut back 1 foot from the temporary pavement limits and processed gravel and permanent pavement repair installed per the construction details.
- E. Adequate precautions shall be taken to protect all vehicular and pedestrian traffic from injury or damage during bypassing. Barricades, flashers, cones, barrels or other protection shall be installed at intersections or as required at locations directed by the Owner. Protective equipment shall be maintained in proper operating condition.
- F. Disinfection and water quality testing shall conform to Section 6.01 of these specifications.

- G. Temporary water services shall be connected to the temporary water main for each single residential unit or other building.
- H. In general, the temporary bypass system shall be fed from fire hydrants located in the work area. Whenever possible, each bypass piping section shall have two feeds. Dead end section may be allowed with prior approval from the Owner. Locations shall be shown on the plans or as needed by the Contractor to perform the work.
- I. Connection to the private plumbing system shall be via a wye installed at an outside tap. The connection of single residential units in series is not permitted. Each temporary water service shall have its own valved connection to the temporary water main.
- J. Fire Protection:
 - 1. Contractor shall notify the Fire Department that a temporary bypass water system is on operation.
 - 2. Existing hydrant taken out of service shall be bagged and clearly marked “hydrant out of service”. No hydrant shall be taken out of service unless prior written approval is granted by the Fire Department.
 - 3. Temporary hydrants shall be brought into service and tested prior to disabling the existing hydrants as needed for the temporary bypass system.
 - 4. Temporary hydrants shall be installed in the locations shown on the Contract Drawings or as directed by the Fire Department in the field.
- K. All joints, fittings and connections shall be water tight. Leakage shall not be acceptable.
- L. No temporary water mains or services shall be utilized during freezing weather unless directed by the Owner (typically between November 1 and March 1). Pipes already in use shall be drained or removed and existing services restored when so directed by the owner.
- M. No individual temporary water service may remain in operation for longer than 30 days without prior approval by the Owner.
- N. After completion of all proposed water main work and service restoration, temporary bypass piping shall be removed and streets, driveways and adjacent properties restored to a condition equal to or better than existed prior to construction.
- O. The Contractor shall be responsible for 24-hour maintenance and repair of the temporary bypass system. The Contractor shall be equipped to make all repairs necessary, at the project site for the duration of the installation. The Owner shall be provided with a 24-hour emergency contact number at which the Contractor may be reached.

4.0 MEASUREMENT

Providing Temporary Residential Water Services as required throughout the project shall be measured as Lump Sum.

- A. Temporary Bypass Service Piping/Hose shall not be measured for separate payment and the cost shall be included in the lump sum price.
- B. Bends, tees, fitting, valves, couplings, wyes, caps, plugs or other appurtenances necessary to connect to the existing water system or water service shall not be measured for separate payment and the cost shall be included in the lump sum price.
- C. Thrust restraint and securing the temporary bypass piping (main or service) shall not be measured for separate payment and the cost shall be included in the lump sum price.
- D. Testing, flushing, and disinfection of temporary mains, services and appurtenances and providing temporary facilities for same shall not be measured for separate payment and the cost shall be included in the lump sum price.
- E. Maintenance, repair and continued up keep of the temporary bypass water system shall not be measured for separate payment and the cost shall be included in the lump sum price.
- F. Ramped driveway or sidewalk crossings shall not be measured for separate payment and the cost shall be included in the lump sum price.
- G. Buried roadway crossings shall not be measured for separate payment and the cost shall be included in the lump sum price.
- H. Pipe bedding as needed shall not be measured for separate payment and the cost shall be included in the lump sum price.
- I. Trench excavation, pavement removal and backfill and, protection of trees and shrubs and other appurtenant work shall not be measured for separate payment and the cost shall be included in the lump sum price.
- J. Costs for the temporary support for utility poles or underground utilities as needed to perform the required work shall not be paid for separately. All costs associated with the temporary support of utility poles or underground utilities per the applicable Utility Company specifications shall be included in the lump sum price.

- K. Final surface restoration including topsoil, seed, fertilizer & mulch and erosion control matting shall be measured for payment in accordance with the applicable Sections of these Specifications.

5.0 PAYMENT

The cost of this work shall be paid for as a lump sum for "Temporary Residential Water Service" and shall include all materials, equipment, tools, and labor incidental to the completion of this item.

8.01 TOPSOIL, SEED, FERTILIZE AND MULCH

1.0 DESCRIPTION

This work shall consist of placing topsoil, furnishing topsoil when required, fertilizing, seeding and mulching all areas disturbed by the work and the Contractor's operations.

2.0 MATERIALS

Materials for this work shall conform to the following requirements:

2.01 TOPSOIL

Topsoil excavated from the project shall be used whenever possible. Topsoil supplied by the Contractor shall conform to the requirement of Article M.13.01-1.

2.02 FERTILIZER

Fertilizer shall conform to the requirement of Article M.13.03.

2.03 MULCH

Mulch shall conform to Article M.13.05-1 and shall be hay or wood fiber.

2.04 SEED MIXTURE

Seed mixture for seeding shall conform to the specifications outlined on the Contract Drawings.

3.0 CONSTRUCTION METHODS

All topsoil excavated from the project shall be used. When, in the opinion of the Owner, sufficient topsoil is not available, the Contractor shall supply topsoil from other sources. The areas on which topsoil is to be placed shall be graded to a reasonable true surface. Topsoil shall then be spread and shaped to the lines and grades shown on the plans, or as directed by the Owner. The depth shown on the plans to which the topsoil is to be placed is that required after settlement of the material has taken place. All stones, roots, debris, sod, weeds and other undesirable material shall be removed. After shaping and grading, all trucks and other equipment shall be excluded from the topsoil area to prevent excessive compaction. The Contractor shall perform such work as required to provide a friable surface for seed germination and plant growth prior to seeding. During hauling and spreading operations, the Contractor shall immediately remove any material dumped or spilled on pavement.

It shall be the Contractor's responsibility to restore to the line, grade and surface all eroded areas with approved material and to keep topsoiled areas in acceptable condition until the completion of the construction work.

The areas to be seeded shall be made friable and receptive to seeding by approved methods which will not disrupt the line and grade of the slope surface. In no event will seeding be permitted on hard or crusted soil surface. All areas shall be free from weeds taller than three (3) inches.

The normal seeding seasons shall be March 15th to June 15th and August 15th to October 15th. Seeding at other times shall be done only when ordered by the Owner.

Areas of disturbed soil which will contribute significantly to air and stream pollution shall be established to the designated vegetative cover as soon as feasible or when directed by the Owner.

Seed shall be uniformly applied by any ergonomically acceptable and feasible method approved by the Owner. Seed mixture shall be applied at the rate of 200 pounds per acre. Fertilizer shall be uniformly placed at the rate of 640 pounds per acre.

All seeded areas shall be mulched with hay or, if hydroseeding is used, wood fiber. Hay shall be uniformly applied by an approved method to a placed depth of two (2) inches. Hay shall be held in place by one uniform Application of asphalt emulsion, Type SS-1, applied at the rate of 0.08 gallons per square yard. The emulsion shall have a temperature range within 50 to 120 degrees F. at the time of the application. The emulsion may be applied during or immediately after the application of the mulch. Wood fiber mulch shall be uniformly applied at the rate of one (1) tone per acre.

The Contractor shall keep all equipment and vehicular and pedestrian traffic off areas that have been seeded to prevent excessive compaction and damage to young plants. The Contractor shall be required to replant areas damaged by water, wind, fire, equipment or pedestrian traffic when ordered by the Owner at no cost to the Owner.

Work under this item shall not be complete until all stones and debris have been removed from the seeded areas. In areas where topsoil and seeding are not required, all disturbed areas shall be neatly graded and cleared of all debris.

4.0 MEASUREMENT AND PAYMENT

This item will be measured by the actual number of square yards of completed and accepted areas which are topsoiled, seeded, fertilized and mulched as indicated on the Drawings or as directed by the Owner.

Any excavation required to provide for the specified thickness of topsoil in the designated areas will not be measured for payment but the cost shall be included in the price bid for topsoil, seed, fertilizer and mulch.

"Topsoil, Seed, Fertilize & Mulch" measured as provided above, will be paid for at the Contract unit price bid per square yard completed and accepted in place, which price shall include all materials, equipment, tools, excavation, labor and work incidental thereto.

8.02 EROSION CONTROL MATTING

1.0 DESCRIPTION

This work shall consist of furnishing and installing erosion control matting following loaming and seeding where called for on the plans or as specified by the Owner or Engineer.

2.0 MATERIALS

Materials for this work shall conform to the following requirements:

2.01 EROSION CONTROL MATTING

Erosion control matting shall be coconut fiber, machine produced 100% biodegradable mat with a 100% coconut fiber matrix with a functional longevity of approximately 24 months.

The blanket shall be of consistent thickness with coconut fiber evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven, natural organic fiber netting. The top netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as Leno weave) to form an approximate 0.50 x 1.00 inch mesh. The blanket shall be sewn together on 1.5 inch centers with biodegradable thread.

Material Content:

Matrix 100% coconut fiber
(0.50 lb/yd²)

NettingTop – Leno woven 100% biodegradable organic jute fiber
(9.30 lbs/1,000 ft² approximate weight)

Bottom – 100% biodegradable organic jute fiber
(7.70 lbs/1,000 ft² approximate weight)

Performance Specifications

Property	Test Method	Typical
Thickness	ASTM D5199/ECTC	0.26 in.
Resiliency	ECTC Guidelines	85%
Mass per Unit Area	ASTM D6475	8.83 oz/yd ²
Water Absorption	ASTM D1117/ECTC	155%
Swell	ECTC Guidelines	40%
Stiffness/Flexibility	ASTM D1388/ECTC	0.11 oz-in.
Light Penetration	ECTC Guidelines	16.40%
Smolder Resistance	ECTC Guidelines	Yes
MD Tensile Strength	ASTM D5035	342 lbs/ft
MD Elongation	ASTM D5035	7.60%
TD Tensile Strength	ASTM D5035	211 lbs/ft
TD Elongation	ASTM D5035	11.10%

Erosion Control Matting shall be Bionet C125BN as manufactured by North American Green, or approved equal.

2.02 STAPLES

Staples shall be 6" (min.) long wire staples or 6" (min.) rigid biodegradable stakes.

3.0 CONSTRUCTION METHODS

Erosion Control Matting and staples shall be installed per the manufactures recommendations and construction details shown on the plans.

Loam, seed and fertilize disturbed areas as outlined in section 8.01 of these specifications and as outlined on the plans.

Begin at the top of the slope by anchoring the blanket in a 6" deep x 6" wide trench, backfill and compact the trench after stapling.

Roll the blanket down or horizontally across the slope

The edges of parallel blankets must be stapled with approximately 2" of overlap.

When blankets must be spliced down the slope, place blankets end over end (shingle style) with approximately 4" of overlay. Staple through overlapped area, approximately 12" apart.

Staple blankets along edges and through the field of the blankets as recommended by the manufacturer.

4.0 MEASUREMENT AND PAYMENT

This item will be measured by the actual number of square yards of completed and installed Erosion Control Matting, as indicated on the Drawings or as directed by the Owner.

"Erosion Control Matting" measured as provided above, will be paid for at the Contract unit price bid per square yard completed and accepted in place, which price shall include all materials, equipment, tools, excavation, labor and work incidental thereto.

9.02 CAST-IN-PLACE CONCRETE (NON-STRUCTURAL)

1.0 DESCRIPTION

The work under this Section shall include the furnishing of cast-in-place concrete for the encasement of utilities, or as directed by the Owner.

2.0 MATERIALS

The materials for this work shall conform to the requirements of Article M.03.01.

3.0 CONSTRUCTION METHODS

Construction methods shall conform to Article 6.01.03 as applicable.

4.0 MEASUREMENT AND PAYMENT

Cast-in-place concrete shall be measured for payment by the Owner by the number of cubic yards of concrete cast-in-place and accepted, which price shall include all materials, equipment, tools, labor and work incidental thereto.

Cast-in-place concrete used for concrete thrust blocks shall not be measured for payment but the cost shall be included in the water piping items.

9.03 REMOVE AND REPLACE GUIDE RAILS

1.0 DESCRIPTION

This work shall consist of removing and replacing existing posts, guide railing and metal beam rail complete, including wire rope, metal beam, fittings and anchorages as indicated on the plans or as ordered. All parts of the existing railing system shall be replaced in its entirety with new parts conforming to the requirements of these specifications.

2.0 MATERIALS

The materials required to properly complete with work shall conform to the requirements of Section M.10 of the Standard Specifications, Form 817.

3.0 CONSTRUCTION METHODS

Construction methods for resetting guide rail shall conform to the applicable sections of Section 9.12 of the Standard Specifications, Form 817.

4.0 MEASUREMENT AND PAYMENT

No separate measurement or payment shall be made for this item and all costs in connection there with shall be included in other contract items.

9.04 DRAINAGE PIPE REPLACEMENT

1.0 DESCRIPTION

The work under this Section shall consist of replacing existing storm drainage pipe (18" diameter or less) with new storm drainage pipe (12"-18" in size) and aggregate backfill material of the type, size and lengths ordered, at the locations and to the lines and grades designated on the Contract Drawings, or as directed by the Owner and in conformity with these specifications. This item shall include removing and disposing of existing piping and connecting into existing piping or structures with appropriate couplings.

1.02 RELATED WORK

Trench Excavation and Backfilling section in this specification.

2.0 MATERIALS

Pipes of the type indicated on the Contract drawings joint sealant and materials, bedding materials, and elbows or specials, shall conform to the applicable requirements of Article M.08.01 of Form 817.

Storm drainage pipe material for this item shall be corrugated polyethylene smooth interior.

3.0 CONSTRUCTION METHODS

Unless otherwise directed by the Owner, all pipes shall be installed in pipe bedding in accordance with the details as shown on the Contract Drawings and in conformance with the applicable portions of Article 6.51.03 of Form 817.

4.0 MEASUREMENT AND PAYMENT

This work will be measured for payment according to the actual number of linear feet of pipe installed and accepted and measured in place. Said unit prices shall include the cost of furnishing and installing the pipe, bedding, shaping and compacting the bedding, sheeting and bracing, shoring, trench boxes, support of pipes or structures over the excavation, required aggregate backfill material, maintaining flow in existing pipes, removing and disposing of existing piping, reconnecting to existing piping and structures etc., and all labor, materials, tools, or equipment necessary or incidental to complete the installation of the pipe.

Rock excavated, processed gravel, temporary and permanent pavement will be paid for under their applicable item.

9.16 PAINTED PAVEMENT MARKINGS AND SIGNAGE

1.0 DESCRIPTION

This work shall consist of installing all painted pavement markings, removing and reinstalling existing signage as shown on the Contract Drawings. The Contractor shall be responsible for the reinstallation of all pavement marking and existing signage disturbed during the course of construction.

2.0 MATERIALS

Epoxy resin pavement markings shall conform to Article 12.10.02 of the Standard Specifications.

Traffic signage and sign posts shall conform to Article 12.08.02 of the Standard Specifications and the details shown on the Contract Drawings.

3.0 CONSTRUCTION METHODS

The installation of epoxy resin pavement markings shall conform to Article 12.10.03 of the Standard Specifications.

Epoxy resin pavement markings:

1. Stop bars shall be white, 12” wide and length as shown on the Contract Drawings.
2. Line striping shall match the existing size, dimension, and color of the existing markings.

The installation of new traffic signage and the reinstallation of existing signage shall conform to Article 12.08.03 of the Standard Specifications and the details shown on the Contract Drawings.

4.0 MEASUREMENT AND PAYMENT

No separate measurement or payment shall be made for this item and all costs in connection there with shall be included in other contract items.

X. BORING & PROBE LOGS

Geologic - Earth Exploration, Inc.

CLIENT: CLA Engineers, Inc.

BORING #:

B1

PROJECT: Montville/Bozrah

PAGE

LOCATION: Noble Hill Rd and Salem Turnpike

1 OF 1

7 Sherwood Drive
TEL (508) 384 4434

Norfolk, MA 02056
FAX (508) 384 4452

File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/12/18</u>	TYPE	<u>HW</u>	<u>SS</u>	_____	_____	Station: _____
Date Completed:	<u>6/12/18</u>	SIZE	<u>4"</u>	<u>2"</u>	_____	_____	Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>300#</u>	<u>140#</u>	<u>---</u>	_____	Date <u>6/12/18</u> Depth <u>12'</u>
Site Rep.:	_____	FALL	<u>30"</u>	<u>30"</u>	<u>---</u>	_____	Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-0.5	6	4	29-120/0	S-1 Dry dense brown coarse SAND and medium GRAVEL
5	S-2	4.0-6.0	24	4	13-14-11-10	S-2 Dry medium dense brown coarse SAND and medium GRAVEL
10	S-3	9.0-11.0	24	7	10-30-8-22	S-3 Wet dense brown fine SAND, trace Silt and medium Gravel
15	S-4	14.0-16.0	24	8	15-17-23-57	S-4 Similar to S-3
20	S-6	19.0-21.0	24	10	24-34-38-55	S-6 Wet very dense brown fine SAND, little Silt and medium Gravel
25	S-7	24.0-26.0	24	3	26-22-20-20	S-7 Wet dense brown fine SAND and GRAVEL
	Bottom of exploration at 26.0'					

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

Notes:

- The stratification lines represent the approximate boundary between soil types. The transition may be gradual.
- Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks:

All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

BL ALL 18072.CLA.MONTVILLE.BOZRAH.CT.GPJ.GEOLOGIC.GDT 6/18/18

Geologic - Earth Exploration, Inc.

CLIENT: CLA Engineers, Inc.

BORING #:

B2

PROJECT: Montville/Bozrah

PAGE

LOCATION: Noble Hill Rd and Salem Turnpike

1 OF 1

7 Sherwood Drive
TEL (508) 384 4434

Norfolk, MA 02056
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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/12/18</u>	TYPE	<u>HW</u>	<u>SS</u>			Station: _____
Date Completed:	<u>6/12/18</u>	SIZE	<u>4"</u>	<u>2"</u>			Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>300#</u>	<u>140#</u>	<u>---</u>		Date <u>6/12/18</u> Depth <u>12'</u>
Site Rep.:	_____	FALL	<u>30"</u>	<u>30"</u>	<u>---</u>		Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-0.0	0	0	120/0	S-1 Very dense - started hole on top of massive coble right under asphalt
5	S-2	4.0-4.9	11	6	12-120/5	S-2 Dry very dense brown coarse SAND and medium GRAVEL
10	S-3	9.0-11.0	24	11	14-12-15-43	S-3 Wet medium dense brown fine SAND, trace Silt and medium Gravel
15	S-4	14.0-16.0	24	14	23-29-29-55	S-4 Wet very dense brown fine SAND, trace Silt and medium Gravel
20	S-5	19.0-21.0	24	3	59-44-41-44	S-5 Wet very dense brown SAND, some Gravel
25	S-6	24.0-26.0	24	3	39*-46-44-57	S-6 Wet very dense brown SAND and medium GRAVEL
	Bottom of exploration at 26.0'					
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft	Cohesionless Density Blows/ft	Sample Type
Trace 0 to 10%	0-2 Very Soft 9-15 Stiff	0-10 Loose	UP = Fixed Piston
Little 10 to 20%	3-4 Soft 16-30 V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some 20 to 35%	5-8 M-Stiff 31+ Hard	30-50 Dense	OE = Open End Rod
And 35 to 50%		50+ V-Dense	* = 300# hammer

- Notes:**
- The stratification lines represent the approximate boundary between soil types. The transition may be gradual.
 - Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks: All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

BL ALL 18072.CLA.MONTVILL. BOZRAH CT.GPJ.GEOLOGIC.GDT 6/18/18

Geologic - Earth Exploration, Inc.

CLIENT: CLA Engineers, Inc.
 PROJECT: Montville/Bozrah
 LOCATION: Noble Hill Rd and Salem Turnpike

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7 Sherwood Drive
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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/6/18</u>	TYPE	<u>4"</u>	<u>2"</u>			Station: _____
Date Completed:	<u>6/6/18</u>	SIZE	<u>300#</u>	<u>140#</u>	<u>---</u>		Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>	<u>---</u>		Date _____ Depth _____
Site Rep.:		FALL					Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	P-1	0.0-4.0	48	41		P-1 Asphalt 8" Dry dense brown coarse SAND and medium GRAVEL
5	P-2	4.0-8.0	48	36		P-2 Dry dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft	Cohesionless Density Blows/ft	Sample Type
Trace 0 to 10%	0-2 Very Soft 9-15 Stiff	0-10 Loose	UP = Fixed Piston
Little 10 to 20%	3-4 Soft 16-30 V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some 20 to 35%	5-8 M-Stiff 31+ Hard	30-50 Dense	OE = Open End Rod
And 35 to 50%		50+ V-Dense	* = 300# hammer

Notes:
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 2. Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks: All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

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PROJECT: Montville/Bozrah

LOCATION: Noble Hill Rd and Salem Turnpike

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/6/18</u>	TYPE	<u>4"</u>	<u>2"</u>			Station: _____
Date Completed:	<u>6/6/18</u>	SIZE	<u>300#</u>	<u>140#</u>			Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>			Date _____ Depth _____
Site Rep.:		FALL					Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	39		S-1 Asphalt 8" Dry dense brown coarse SAND and medium GRAVEL
5	S-2	4.0-8.0	48	37		S-2 Dry dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

Notes:

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- Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks:

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BL ALL 18072.CLA.MONTVILL.Bozrah CT.GPJ GEOLOGIC.GDT 6/18/18

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 LOCATION: Noble Hill Rd and Salem Turnpike

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation:	_____
Date Started:	<u>6/6/18</u>	TYPE	<u>4"</u>		<u>2"</u>		Station:	_____
Date Completed:	<u>6/6/18</u>	SIZE	<u>300#</u>		<u>140#</u>		Groundwater level readings	
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>		<u>30"</u>		Date	_____
Site Rep.:	_____	FALL					Depth	_____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	40		S-1 Asphalt 8" Dry brown coarse SAND and medium GRAVEL
5	S-2	4.0-8.0	48	36		S-2 Dry brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

Notes:
 1. The stratification lines represent the approximate boundary between soil types. The transition may be gradual.
 2. Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks: All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

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 LOCATION: Noble Hill Rd and Salem Turnpike

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation:	_____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>	_____	_____	Station:	_____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>	---	---	Groundwater level readings	
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>	---	---	Date _____	Depth _____
Site Rep.:	_____	FALL	_____	_____	_____	_____	Date _____	Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	41		S-1 Asphalt 8" Dry medium dense brown coarse SAND and medium GRAVEL
5	S-2	4.0-8.0	48	37		S-2 Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace 0 to 10%	0-2	Very Soft	9-15	Stiff	0-10	Loose	UP = Fixed Piston
Little 10 to 20%	3-4	Soft	16-30	V-Stiff	10-30	M-Dense	UT = Shelby Tube
Some 20 to 35%	5-8	M-Stiff	31+	Hard	30-50	Dense	OE = Open End Rod
And 35 to 50%					50+	V-Dense	* = 300# hammer

Notes:
 1. The stratification lines represent the approximate boundary between soil types. The transition may be gradual.
 2. Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks: All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

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 PROJECT: Montville/Bozrah
 LOCATION: Noble Hill Rd and Salem Turnpike

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation:	_____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>	_____	_____	Station:	_____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>	---	---	Groundwater level readings	
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>	---	---	Date	_____ Depth _____
Site Rep.:	_____	FALL	_____	_____	_____	_____	Date	_____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	41		S-1 Asphalt 8" Dry medium dense brown coarse SAND and medium GRAVEL
5	S-2	4.0-8.0	48	40		S-2 Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft	Cohesionless Density Blows/ft	Sample Type
Trace 0 to 10%	0-2 Very Soft 9-15 Stiff	0-10 Loose	UP = Fixed Piston
Little 10 to 20%	3-4 Soft 16-30 V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some 20 to 35%	5-8 M-Stiff 31+ Hard	30-50 Dense	OE = Open End Rod
And 35 to 50%		50+ V-Dense	* = 300# hammer

Notes:
 1. The stratification lines represent the approximate boundary between soil types. The transition may be gradual.
 2. Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks: All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

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PROJECT: Montville/Bozrah

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LOCATION: Noble Hill Rd and Salem Turnpike

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>			Station: _____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>			Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>			Date _____ Depth _____
Site Rep.:		FALL					Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	41		S-1 Asphalt 8" Dry medium dense brown coarse SAND and medium GRAVEL
5	S-2	4.0-8.0	48	37		S-2 Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

Notes:

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- Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks:

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CLIENT: CLA Engineers, Inc.
 PROJECT: Montville/Bozrah
 LOCATION: Noble Hill Rd and Salem Turnpike

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation:	_____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>	_____	_____	Station:	_____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>	---	---	Groundwater level readings	
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>	---	---	Date _____	Depth _____
Site Rep.:	_____	FALL	_____	_____	---	---	Date _____	Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
5	S-1	0.0-4.0	48	44		S-1 Asphalt 8" Dry medium dense brown coarse SAND and medium GRAVEL
	S-2	4.0-8.0	48	42		S-2 Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft	Cohesionless Density Blows/ft	Sample Type
Trace 0 to 10%	0-2 Very Soft 9-15 Stiff	0-10 Loose	UP = Fixed Piston
Little 10 to 20%	3-4 Soft 16-30 V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some 20 to 35%	5-8 M-Stiff 31+ Hard	30-50 Dense	OE = Open End Rod
And 35 to 50%		50+ V-Dense	* = 300# hammer

Notes:
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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/4/18</u>	TYPE	<u>HW</u>	<u>SS</u>	_____	_____	Station: _____
Date Completed:	<u>6/4/18</u>	SIZE	<u>4"</u>	<u>2"</u>	_____	_____	Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>300#</u>	<u>140#</u>	<u>---</u>	_____	Date _____ Depth _____
Site Rep.:	_____	FALL	<u>30"</u>	<u>30"</u>	<u>---</u>	_____	Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	41		S-1 Asphalt 8" Dry loose fine brown SAND
5	S-2	4.0-8.0	48	40		S-2 4-6" Wet medium dense fine brown SAND, trace Silt and perch water 6-8" Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft	Cohesionless Density Blows/ft	Sample Type
Trace 0 to 10%	0-2 Very Soft 9-15 Stiff	0-10 Loose	UP = Fixed Piston
Little 10 to 20%	3-4 Soft 16-30 V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some 20 to 35%	5-8 M-Stiff 31+ Hard	30-50 Dense	OE = Open End Rod
And 35 to 50%		50+ V-Dense	* = 300# hammer

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/4/18</u>	TYPE	<u>HW</u>	<u>SS</u>	_____	_____	Station: _____
Date Completed:	<u>6/4/18</u>	SIZE	<u>4"</u>	<u>2"</u>	_____	_____	Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>300#</u>	<u>140#</u>	<u>---</u>	_____	Date _____ Depth _____
Site Rep.:	_____	FALL	<u>30"</u>	<u>30"</u>	<u>---</u>	_____	Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	44		S-1 Asphalt 8" Dry loose fine brown SAND
5	S-2	4.0-8.0	48	44		S-2 4-6" Wet medium dense fine brown SAND, trace Silt and perch water 6-8" Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation:	_____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>		<u>2"</u>		Station:	_____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>		<u>140#</u>		Groundwater level readings	
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>		<u>30"</u>		Date	_____
Site Rep.:	_____	FALL					Depth	_____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	41		S-1 Asphalt 8" Dry medium dense fine brown SAND
5	S-2	4.0-8.0	48	40		S-2 4-6" Wet medium dense fine brown SAND, trace Silt and perch water 6-8" Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

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LOCATION: Noble Hill Rd and Salem Turnpike

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>			Station: _____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>			Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>			Date _____ Depth _____
Site Rep.:		FALL					Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	40		S-1 Asphalt 8" Dry medium dense fine brown SAND
5	S-2	4.0-8.0	48	36		S-2 4-6" Wet medium dense fine brown SAND, trace Silt and perch water 6-8" Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

- Notes:**
- The stratification lines represent the approximate boundary between soil types. The transition may be gradual.
 - Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks: All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

Geologic - Earth Exploration, Inc.

CLIENT: CLA Engineers, Inc.

BORING #:

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PROJECT: Montville/Bozrah

PAGE

LOCATION: Noble Hill Rd and Salem Turnpike

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7 Sherwood Drive
TEL (508) 384 4434

Norfolk, MA 02056
FAX (508) 384 4452

File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>			Station: _____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>			Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>			Date _____ Depth _____
Site Rep.:		FALL					Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	40		S-1 Asphalt 8" Dry medium dense fine brown SAND
5	S-2	4.0-8.0	48	38		S-2 4-6" Wet medium dense fine brown SAND, trace Silt and perch water 6-8" Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

Notes:

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- Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks: All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

BL ALL 18072.CLA.MONTVILL.Bozrah CT.GPJ GEOLOGIC.GDT 6/18/18

Geologic - Earth Exploration, Inc.

CLIENT: CLA Engineers, Inc.

BORING #:

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PROJECT: Montville/Bozrah

PAGE

LOCATION: Noble Hill Rd and Salem Turnpike

1 OF 1

7 Sherwood Drive
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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>			Station: _____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>			Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>			Date _____ Depth _____
Site Rep.:		FALL					Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	41		S-1 Asphalt 8" Dry medium dense fine brown SAND
5	S-2	4.0-8.0	48	40		S-2 4-6" Wet medium dense fine brown SAND, trace Silt and perch water 6-8" Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft	Cohesionless Density Blows/ft	Sample Type
Trace 0 to 10%	0-2 Very Soft 9-15 Stiff	0-10 Loose	UP = Fixed Piston
Little 10 to 20%	3-4 Soft 16-30 V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some 20 to 35%	5-8 M-Stiff 31+ Hard	30-50 Dense	OE = Open End Rod
And 35 to 50%		50+ V-Dense	* = 300# hammer

- Notes:**
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 - Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks: All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

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CLIENT: CLA Engineers, Inc.

PROJECT: Montville/Bozrah

LOCATION: Noble Hill Rd and Salem Turnpike

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/4/18</u>	TYPE	<u>HW</u>	<u>SS</u>	_____	_____	Station: _____
Date Completed:	<u>6/4/18</u>	SIZE	<u>4"</u>	<u>2"</u>	_____	_____	Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>300#</u>	<u>140#</u>	<u>---</u>	_____	Date _____ Depth _____
Site Rep.:	_____	FALL	<u>30"</u>	<u>30"</u>	<u>---</u>	_____	Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	41		S-1 Asphalt 8" Dry dense fine brown SAND
5	S-2	4.0-6.0	24	20		S-2 Dry dense brown coarse SAND and medium GRAVEL Refusal at 6' 1st attempt refused at 2'
						Bottom of exploration at 6.0'
10						
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

Notes:

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- Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.

Remarks:

All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

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CLIENT: CLA Engineers, Inc.

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PROJECT: Montville/Bozrah

PAGE

LOCATION: Noble Hill Rd and Salem Turnpike

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7 Sherwood Drive
TEL (508) 384 4434

Norfolk, MA 02056
FAX (508) 384 4452

File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/4/18</u>	TYPE	<u>HW</u>	<u>SS</u>	_____	_____	Station: _____
Date Completed:	<u>6/4/18</u>	SIZE	<u>4"</u>	<u>2"</u>	_____	_____	Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>300#</u>	<u>140#</u>	<u>---</u>	_____	Date _____ Depth _____
Site Rep.:	_____	FALL	<u>30"</u>	<u>30"</u>	<u>---</u>	_____	Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	41		S-1 Asphalt 8" Dry loose brown SAND and medium GRAVEL
5	S-2	4.0-8.0	48	40		S-2 4-6" Wet medium dense fine brown SAND, trace Silt and perch water 6-8" Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
And	35 to 50%					50+ V-Dense	* = 300# hammer

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Remarks:

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BL ALL 18072.CLA.MONTVILL.Bozrah CT.GPJ GEOLOGIC.GDT 6/18/18

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CLIENT: CLA Engineers, Inc.
 PROJECT: Montville/Bozrah
 LOCATION: Noble Hill Rd and Salem Turnpike

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7 Sherwood Drive Norfolk, MA 02056
 TEL (508) 384 4434 FAX (508) 384 4452

File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation:	_____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>	_____	_____	Station:	_____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>	---	---	Groundwater level readings	
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>	---	---	Date _____	Depth _____
Site Rep.:	_____	FALL	_____	_____	---	---	Date _____	Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-3.7	44			S-1 Asphalt 8" Dry medium dense brown SAND and medium GRAVEL
5	S-2	4.0-7.5	42			S-2 4-6" Wet medium dense fine brown SAND, trace Silt and perch water 6-8" Dry medium dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft	Cohesionless Density Blows/ft	Sample Type
Trace 0 to 10%	0-2 Very Soft 9-15 Stiff	0-10 Loose	UP = Fixed Piston
Little 10 to 20%	3-4 Soft 16-30 V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some 20 to 35%	5-8 M-Stiff 31+ Hard	30-50 Dense	OE = Open End Rod
And 35 to 50%		50+ V-Dense	* = 300# hammer

Notes:
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Remarks: All soil descriptions are made in the field by the Drilling Foreman. No laboratory analyses were performed for this purpose

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CLIENT: CLA Engineers, Inc.
 PROJECT: Montville/Bozrah
 LOCATION: Noble Hill Rd and Salem Turnpike

BORING #:
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 PAGE
 1 OF 1

7 Sherwood Drive
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 Norfolk, MA 02056
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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation:	_____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>	_____	_____	Station:	_____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>	---	---	Groundwater level readings	
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>	---	---	Date	_____ Depth _____
Site Rep.:	_____	FALL	_____	_____	---	---	Date	_____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	40		S-1 Asphalt 8" Dry loose brown SAND and medium GRAVEL
5	S-2	4.0-8.0	48	39		S-2 4-6" Wet dense fine brown SAND, trace Silt and perch water 6-8" Dry dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft		Sample Type	
Trace	0 to 10%	0-2	Very Soft	9-15	Stiff	0-10 Loose	UP = Fixed Piston
Little	10 to 20%	3-4	Soft	16-30	V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some	20 to 35%	5-8	M-Stiff	31+	Hard	30-50 Dense	OE = Open End Rod
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LOCATION: Noble Hill Rd and Salem Turnpike

BORING #:

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File #:	<u>18072</u>	CASING	<u>HW</u>	SAMPLER	<u>SS</u>	CORE BARREL	Surface Elevation: _____
Date Started:	<u>6/4/18</u>	TYPE	<u>4"</u>	<u>2"</u>			Station: _____
Date Completed:	<u>6/4/18</u>	SIZE	<u>300#</u>	<u>140#</u>			Groundwater level readings
Driller:	<u>T. Grenier</u>	HAMMER	<u>30"</u>	<u>30"</u>			Date _____ Depth _____
Site Rep.:		FALL					Date _____ Depth _____

Depth ft	Sample					Sample Description
	No.	Depth ft	Pen. in	Rec. in	Blows/6"	
	S-1	0.0-4.0	48	41		S-1 Asphalt 8" Dry dense brown coarse SAND and medium GRAVEL
5	S-2	4.0-8.0	48	37		S-2 Dry dense brown coarse SAND and medium GRAVEL
10						Bottom of exploration at 8.0'
15						
20						
25						
30						

Ground Surface to _____ used _____ then _____

Proportions Used	Cohesive Consistency Blows/ft	Cohesionless Density Blows/ft	Sample Type
Trace 0 to 10%	0-2 Very Soft 9-15 Stiff	0-10 Loose	UP = Fixed Piston
Little 10 to 20%	3-4 Soft 16-30 V-Stiff	10-30 M-Dense	UT = Shelby Tube
Some 20 to 35%	5-8 M-Stiff 31+ Hard	30-50 Dense	OE = Open End Rod
And 35 to 50%		50+ V-Dense	* = 300# hammer

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XI. PREVAILING WAGE REQUIREMENTS & RATES

Davis-Bacon Federal Prevailing Wage Requirements and Construction Contract Language for DWSRF Projects *Revised 10/20/2016*

Wage Rate Requirements Under the FY 2016 Appropriations Act

Preamble

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

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

I. Requirements Under The Consolidated Appropriations Act, 2016 (P.L. 114-113) For Sub recipients That Are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the Consolidated Appropriations Act, 2016 (P.L. 114-113) with respect to State recipients and sub recipients that are governmental entities. If a sub recipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. If a State recipient needs guidance, the recipient may contact **Valerie Marshall** (marshall.valerie@epa.gov or 617-918-1674) of EPA Region 1 for guidance. The recipient or sub recipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/whd/>

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

Under the Consolidated Appropriations Act, 2016, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a sub recipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the sub recipient must discuss the situation with the recipient State before authorizing work on that site.

State of Connecticut – Department of Public Health
Drinking Water Section
Drinking Water State Revolving Fund

2. Obtaining Wage Determinations.

- (a) Sub recipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.
- (i) While the solicitation remains open, the sub recipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The sub recipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the sub recipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the sub recipient.
- (ii) If the sub recipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the sub recipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6 (c)(3)(iv). The sub recipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.
- (b) If the sub recipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the sub recipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.
- (c) Sub recipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.
- (d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a sub recipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the sub recipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the sub recipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The sub recipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

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Drinking Water Section
Drinking Water State Revolving Fund

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the sub recipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the Consolidated Appropriations Act, 2016, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

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

State of Connecticut – Department of Public Health
Drinking Water Section
Drinking Water State Revolving Fund

(ii) (A) The sub recipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the sub recipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the sub recipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the sub recipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

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

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the

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Drinking Water Section
Drinking Water State Revolving Fund

contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.
- (2) Withholding. The sub recipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
- (3) Payrolls and basic records.
- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

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(ii) (A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the sub recipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the sub recipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the sub recipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sub recipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

- (1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
- (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

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(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the

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provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
 - (iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.
- (5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
 - (6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines

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may by appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

- (7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- (9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and sub recipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.
- (10) Certification of eligibility.
 - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

- (a) Contract Work Hours and Safety Standards Act. The sub recipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.
 - (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics

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shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.
 - (3) Withholding for unpaid wages and liquidated damages. The sub recipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
 - (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.
- (b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Sub recipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Sub recipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or

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subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

- (a) The sub recipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The sub recipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.
- (b) The sub recipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Sub recipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB. Sub recipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence."
- (c) The sub recipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The sub recipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the sub recipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Sub recipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the sub recipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.
- (d) The sub recipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.
- (e) Sub recipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/whd/america2.htm>.

II. Requirements Under The Consolidated Appropriations Act, 2016 (P.L. 114-113) For Sub recipients That Are Not Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under the FY2016 Consolidated Appropriations Act with respect to sub recipients that are not governmental entities. If a sub recipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient for guidance. If a State recipient needs guidance, the recipient may contact **Valerie Marshall** (marshall.valerie@epa.gov or 617-918-1674), EPA Grants Management Office for guidance. The recipient or sub recipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/whd/>

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

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

Under the FY2016 Consolidated Appropriations Act, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a sub recipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the sub recipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

- (a) Sub recipients must obtain proposed wage determinations for specific localities at www.wdol.gov. After the Sub recipient obtains its proposed wage determination, it must submit the wage determination to the DWSRF Program email at DPH.CTDWSRF@ct.gov for approval and inform your Project Engineer prior to inserting the wage determination into a solicitation, contract or issuing task orders, work assignments or similar instruments to existing contractors (ordering instruments unless subsequently directed otherwise by the State recipient Award Official.)
- (b) Sub recipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.
 - (i) While the solicitation remains open, the sub recipient shall monitor www.wdol.gov on a

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weekly basis to ensure that the wage determination contained in the solicitation remains current. The sub recipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the sub recipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the sub recipient.

- (ii) If the sub recipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the sub recipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The sub recipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.
- (c) If the sub recipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the sub recipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.
- (d) Sub recipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.
- (e) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a sub recipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the sub recipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the sub recipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The sub recipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

- (a) The Recipient shall insure that the sub recipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY2016 Consolidated Appropriations Act,

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the following clauses:

(1) Minimum wages.

- (i) All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. Sub recipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

- (ii) (A) The sub recipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a

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reasonable relationship to the wage rates contained in the wage determination.

- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the sub recipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the sub recipient(s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the sub recipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request, and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.
- (2) Withholding. The sub recipient(s) shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be

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

(3) Payrolls and basic records.

- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii) (A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the sub recipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the sub recipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll

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information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the sub recipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sub recipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

- (1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
- (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

- (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them

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available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees

- (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractors registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed

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pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.
- (5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- (6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- (7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- (8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

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- (9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Sub recipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.
- (10) Certification of eligibility.
- (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

- (a) Contract Work Hours and Safety Standards Act. The sub recipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.
- (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
 - (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum

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of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

- (3) Withholding for unpaid wages and liquidated damages. The sub recipient shall upon the request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (a)(2) of this section.
 - (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.
- (b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Sub recipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Sub recipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

- (a) The sub recipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The sub recipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.
- (b) The sub recipient shall establish and follow an interview schedule based on its assessment

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of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Sub recipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB. Sub recipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence."

- (c) The sub recipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The sub recipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable the sub recipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Sub recipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB . In addition, during the examinations the sub recipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.
- (d) The sub recipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.
- (e) Sub recipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/whd/america2.htm>.

PAYROLL

(For Contractor's Optional Use; See Instructions, Form WH-347 Inst.)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.



NAME OF CONTRACTOR <input type="checkbox"/> OR SUBCONTRACTOR <input type="checkbox"/>	ADDRESS	OMB No.: 1215-0149 Expires: 03/31/2003
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PAYROLL NO.	FOR WEEK ENDING	PROJECT AND LOCATION	PROJECT OR CONTRACT NO.
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(1) NAME, ADDRESS, AND SOCIAL SECURITY NUMBER OF EMPLOYEE	(2) NO. OF WITHHOLDING EXEMPTIONS	(3) WORK CLASSIFICATION	OT. OR ST.	(4) DAY AND DATE							(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS					(9) NET WAGES PAID FOR WEEK
				HOURS WORKED EACH DAY										FICA	WITH- HOLDING TAX		OTHER	TOTAL DEDUCTIONS	
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We estimate that it will take an average of 56 minutes to complete this collection of information, including time for reviewing instructions searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection of information, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, ESA, U. S. Department of Labor, Room S3502, 200 Constitution Avenue, N. W., Washington, D. C. 20210.

Date _____

I, _____, _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____;
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,
 all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination Incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

- in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

General Decision Number: CT190017 01/18/2019 CT17

Superseded General Decision Number: CT20180017

State: Connecticut

Construction Type: Heavy

County: New London County in Connecticut.

HEAVY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	01/18/2019

* BRCT0001-011 01/07/2019

	Rates	Fringes
BRICKLAYER.....	\$ 34.72	32.15

CARP0326-004 05/07/2018

	Rates	Fringes
CARPENTER		
CARPENTERS, PILEDRIVERS.....	\$ 32.60	25.34
DIVER TENDERS.....	\$ 32.60	25.34
DIVERS.....	\$ 41.06	25.34
MILLWRIGHTS.....	\$ 33.14	25.74

ELEC0035-011 06/01/2018

Bozrah, Colchester, Franklin, Griswold, Lebanon, Ledyard, Lisbon, Montville, North Stonington, Norwich, Preston, Salem, Sprague, Stonington and Voluntown

	Rates	Fringes
ELECTRICIAN.....	\$ 40.00	3%+25.97

 ELEC0090-003 06/01/2018

East Lyme, Groton, New London, Old Lyme, Waterford, plus the part of Ledyard wherein the property of the Submarine Base is located

	Rates	Fringes
ELECTRICIAN.....	\$ 37.50	3%+27.91

 ENGI0478-001 09/30/2018

	Rates	Fringes
Power equipment operators:		
GROUP 1.....	\$ 39.55	24.30
GROUP 2.....	\$ 39.23	24.30
GROUP 3.....	\$ 38.49	24.30
GROUP 4.....	\$ 38.10	24.30
GROUP 5.....	\$ 37.51	24.30
GROUP 6.....	\$ 37.20	24.30
GROUP 7.....	\$ 36.86	24.30
GROUP 8.....	\$ 36.46	24.30
GROUP 9.....	\$ 36.03	24.30
GROUP 10.....	\$ 33.99	24.30
GROUP 11.....	\$ 33.99	24.30
GROUP 12.....	\$ 33.93	24.30
GROUP 13.....	\$ 35.46	24.30
GROUP 14.....	\$ 33.35	24.30
GROUP 15.....	\$ 33.04	24.30
GROUP 16.....	\$ 32.21	24.30
GROUP 17.....	\$ 31.80	24.30
GROUP 18.....	\$ 31.15	24.30

Hazardous waste premium \$3.00 per hour over classified rate.

- Crane with boom, including jib, 150 feet - \$1.50 extra.
- Crane with boom, including jib, 200 feet - \$2.50 extra.
- Crane with boom, including jib, 250 feet - \$5.00 extra.
- Crane with boom, including jib, 300 feet - \$7.00 extra.
- Crane with boom, including jib, 400 feet - \$10.00 extra

All Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

- 1) Crane handling or erecting structural steel or stone, hoisting engineer(2 drums or over)
- 2) Cranes(100 ton rated capacity and over) Bauer Drill/Caisson
- 3) Cranes(under 100 ton rated capacity)

a. PAID HOLIDAYS: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Crane handling or erecting structural steel or stone, hoisting engineer (2 drums or over), front end loader (7 cubic yards or over), work boat 26 ft. and over.

GROUP 2: Cranes (100 ton capacity & over), Excavator over 2 cubic yards, piledriver (\$3.00 premium when operator controls hammer), Bauer Drill/Caisson

GROUP 3: Excavator, cranes (under 100 ton rated capacity), gradall, master mechanic, hoisting engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power or operation) Rubber Tire Excavator (drott 1085 or similar); Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.)

GROUP 4: Trenching machines, lighter derrick, concrete finishing machine, CMI machine or similar, Koehring Loader (skooter).

GROUP 5: Specialty railroad equipment, asphalt spreader, asphalt reclaiming machine, line grider, concrete pumps, drills with self contained power units, boring machine, post hole digger, auger, pounder, well digger, milling machine (over 24' mandrel), side boom, combination hoe and loader, directional driller

GROUP 6: Front end loader (3 cu. yds. up to 7 cu. yards), bulldozer (Rough grade dozer) .

GROUP 7: Asphalt roller, concrete saws and cutters (ride on types), Vermeer concrete cutter, stump grinder, scraper, snooper, skidder, milling machine (24" and under Mandrel).

GROUP 8: Mechanic, grease truck operator, hydoblaster, barrier mover, power stone spreader, welder, work boat under 26 ft. transfer machine.

GROUP 9: Front end loader (under 3 cubic yards), skid steer loader (regardless of attachments), bobcat or similar, forklift, power chipper, landscape equipment (including hydroseeder).

GROUP 10: Vibratory hammer, ice machine, diesel & air, hammer, etc.

GROUP 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.

GROUP 12: Wellpoint operator.

GROUP 13: Portable asphalt plant operator, portable concrete plant operator, portable crusher plant operator.

GROUP 14: Compressor battery operator.

GROUP 15: Power Safety boat, Vacuum truck, Zim mixer, Sweeper; (Minimum for any job requiring a CDL license) .

GROUP 16: Elevator operator, tow motor operator (solid tire no rough terrain).

GROUP 17: Generator operator, compressor operator, pump operator, welding machine operator; Heater operator.

GROUP 18: Maintenance engineer.

 ENGI0478-008 09/30/2018

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Asphalt Paver.....	\$ 37.51	24.30
Asphalt Roller.....	\$ 36.86	24.30
Asphalt Spreader.....	\$ 37.51	24.30
Backhoe/Excavator 2 cubic yards and over.....	\$ 39.23	24.30
Backhoe/Excavator under 2 cubic yards.....	\$ 38.49	24.30
Bulldozer (Rough Grade Dozer).....	\$ 37.20	24.30
Bulldozer Fine Grade(includes slopes, shaping, laser or gps).....	\$ 38.49	24.30
Crane handling or erecting structural steel or stone...\$	39.55	24.30
Cranes (100 ton capacity & over).....	\$ 39.23	24.30
Cranes (under 100 ton rated capacity).....	\$ 38.49	24.30
Drills with self contained power units; Directional driller.....	\$ 37.51	24.30
Earth Roller.....	\$ 33.99	24.30
Forklift.....	\$ 36.03	24.30
Front End Loader (3 cubic yards up to 7 cubic yards)..\$	37.20	24.30
Front End Loader (7 cubic yards or over).....	\$ 39.55	24.30
Front End Loader (under 3 cubic yards).....	\$ 36.03	24.30
Grader/Blade.....	\$ 38.49	24.30
Maintenance Engineer/Oiler..\$	31.15	24.30
Mechanic.....	\$ 36.46	24.30
Rubber Tire Backhoe/Excavator.....	\$ 38.49	24.30

a. PAID HOLIDAYS: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday.

- b. Crane with boom, including jib, 150 feet - \$1.50 extra .
- Crane with boom, including jib, 200 feet- \$2.50 extra.
- Crane with boom, including jib, 250 feet - \$5.00 extra.
- Crane with boom, including jib, 300 feet - \$7.00 extra.
- Crane with boom, including jib, 400 feet - \$10.00 extra.

All Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

- 1) Crane handling or erecting structural steel or stone, hoisting engineer(2 drums or over)
- 2) Cranes(100 ton rated capacity and over) Bauer Drill/Caisson

3) Cranes(under 100 ton rated capacity)

 IRON0015-008 06/30/2018

	Rates	Fringes
IRONWORKER, REINFORCING AND STRUCTURAL.....	\$ 35.47	35.14

a. PAID HOLIDAY: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

 LABO0056-004 04/01/2018

	Rates	Fringes
Laborers: (TUNNEL CONSTRUCTION)		
CLEANING, CONCRETE AND CAULKING TUNNEL:		
Concrete Workers, Form Movers and Strippers.....	\$ 31.28	19.84
Form Erectors.....	\$ 31.60	19.84
ROCK SHAFT, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:		
Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers.....	\$ 31.28	19.84
Laborers Topside, Cage Tenders, Bellman.....	\$ 31.17	19.84
Miners.....	\$ 32.22	19.84
SHIELD DRIVE AND LINER PLATE TUNNELS IN FREE AIR:		
Brakemen and Trackmen.....	\$ 31.28	19.84
Miners, Motormen, Mucking Machine Operators, Nozzlemen, Grout Men, Shaft and Tunnel, Steel and Rodmen, Shield and Erector, Arm Operator, Cable Tenders.....	\$ 32.22	19.84
TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR:		
Blaster.....	\$ 38.53	19.84
Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders.....	\$ 38.34	19.84
Change House Attendants, Powder Watchmen, Top on Iron Bolts.....	\$ 36.41	19.84
Mucking Machine Operator...	\$ 39.11	19.84

a. PAID HOLIDAYS: On tunnel work only: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

LABO0056-007 04/01/2018

	Rates	Fringes
LABORERS		
GROUP 1.....	\$ 30.05	19.84
GROUP 2.....	\$ 30.30	19.84
GROUP 3.....	\$ 30.55	19.84
GROUP 4.....	\$ 31.05	19.84
GROUP 5.....	\$ 31.80	19.84
GROUP 6.....	\$ 32.05	19.84
GROUP 7.....	\$ 16.00	19.84

LABORERS CLASSIFICATIONS

GROUP 1: Laborers (Unskilled), acetylene burner, concrete specialist

GROUP 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators and powdermen.

GROUP 3: Pipelayers, Jackhammer/Pavement breaker (handheld), mason tenders/catch basin builders, asphalt rakers, air track operators, block paver and curb setter

GROUP 4: Asbestos/lead removal

GROUP 5: Blasters

GROUP 6: Toxic waste remover

GROUP 7: Traffic control signalman

PAIN0011-013 06/01/2018

	Rates	Fringes
PAINTER		
Brush and Roller.....	\$ 33.62	21.05
Spray Only.....	\$ 36.62	21.05
Steel Only.....	\$ 35.62	21.05

TEAM0064-001 04/01/2018

	Rates	Fringes
Truck drivers:		
2 Axle Ready Mix.....	\$ 29.23	23.33
2 Axle.....	\$ 29.13	23.33
3 Axle Ready Mix.....	\$ 29.28	23.33
3 Axle.....	\$ 29.23	23.33
4 Axle Ready Mix.....	\$ 29.38	23.33
4 Axle.....	\$ 29.33	23.33
Heavy Duty Trailer 40 tons and over.....	\$ 29.58	23.33
Heavy Duty Trailer up to 40 tons.....	\$ 29.33	23.33
Specialized (Earth moving equipment other than conventional type on-the-road trucks and semi-trailers, including		

Euclids).....\$ 29.38 23.33

Hazardous waste removal work receives additional \$1.25 per hour.

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

SUCT2002-012 12/16/2008

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...\$	25.52	8.49
TRUCK DRIVER: 3 Axle & Semi		
- Truck.....\$	19.93	7.01

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

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

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

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

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

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

* an existing published wage determination

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

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

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

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

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

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

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

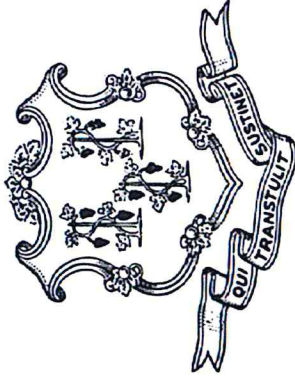
3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

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

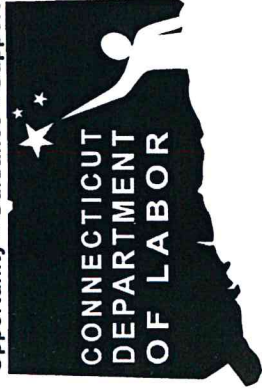
4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION



Opportunity * Guidance * Support



THIS IS A PUBLIC WORKS PROJECT

Covered by the

PREVAILING WAGE LAW

CT General Statutes Section 31-53

**If you have QUESTIONS regarding your wages
CALL (860) 263-6790**

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice
To All Mason Contractors and Interested Parties
Regarding Construction Pursuant to Section 31-53 of the
Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.

- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

STATUTE 31-55a

- SPECIAL NOTICE -

To: All State and Political Subdivisions, Their Agents, and Contractors

Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

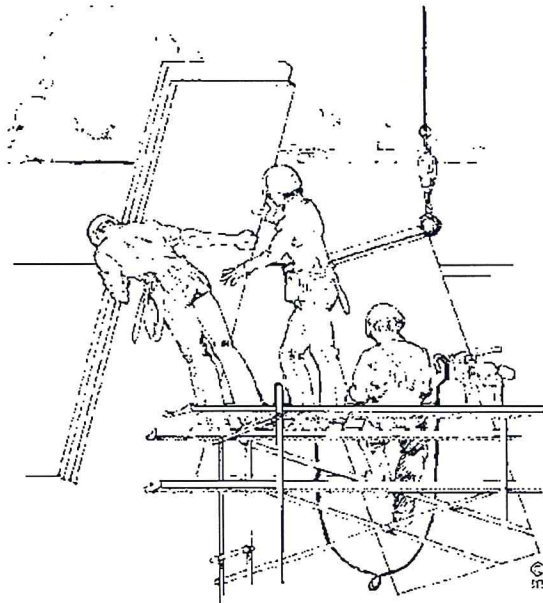
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached "Contracting Agency Certification Form" to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

 Inquiries can be directed to (860)263-6543.



CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION
CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

I, _____, acting in my official capacity as _____,
authorized representative title

for _____, located at _____,
contracting agency address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
project name and number address

shall be \$ _____, which includes all work, regardless of whether such project

consists of one or more contracts.

CONTRACTOR INFORMATION

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

Signature

Date

Return To: Connecticut Department of Labor
Wage & Workplace Standards Division
Contract Compliance Unit
200 Folly Brook Blvd.
Wethersfield, CT 06109

Date Issued: _____

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM
Construction Manager at Risk/General Contractor/Prime Contractor

I, _____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

Street

City

and all of its subcontractors will pay all workers on the

Project Name and Number

Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

Signed

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

Return to:
Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS																				
WEEKLY PAYROLL										WEEKLY PAYROLL										
CONTRACTOR NAME AND ADDRESS:										SUBCONTRACTOR NAME & ADDRESS:										
In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.										Connecticut Department of Labor Wage and Workplace Standards Division 200 Folly Brook Blvd. Wethersfield, CT 06109										
CONTRACTOR NAME AND ADDRESS: PROJECT NAME & ADDRESS: WORK CLASSIFICATION: Trade License Type & Number - OSHA 10 Certification Number										WORKER'S COMPENSATION INSURANCE CARRIER: POLICY #: EFFECTIVE DATE: EXPIRATION DATE:										
PAYROLL NUMBER	Week-Ending Date	APPR. RATE %	MALE/FEMALE AND RACE*	DAY AND DATE							Total Hours	Total O/T Hours	BASE HOURLY RATE	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS			GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
				S	M	T	W	TH	F	S						FEDERAL	STATE	WITH-HOLDING		
HOURS WORKED EACH DAY																				
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													6. \$							

*IF REQUIRED

*SEE REVERSE SIDE

OSHA 10 ~ ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care _____
- 2) Pension or retirement _____
- 3) Life Insurance _____
- 4) Disability _____
- 5) Vacation, holiday _____
- 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____ of _____, (hereafter known as Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such person is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such persons name first appears.

(Signature) (Title) Submitted on (Date)

*****THIS IS A PUBLIC DOCUMENT***
DO NOT INCLUDE SOCIAL SECURITY NUMBERS**

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

Weekly Payroll Certification For Public Works Projects (Continued)

Week-Ending Date: _____
 Contractor or Subcontractor Business Name: _____

WEEKLY PAYROLL

PERSON/WORKER ADDRESS and SECTION	APPR RATE %	MALE/FEMALE AND RACE*	WORK CLASSIFICATION <small>Trade License Type & Number - OSHA 10 Certification Number</small>	DAY AND DATE							Total ST Hours	Base Hourly Rate	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS			GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY	
				S	M	T	W	TH	F	S					FEDERAL STATE	FICA	WITH-HOLDING			LIST OTHER
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NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1)

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

PAYROLL NUMBER		CONTRACTOR NAME AND ADDRESS		PROJECT NAME & ADDRESS		WEEKLY PAYROLL							SUBCONTRACTOR NAME & ADDRESS		TOTAL DEDUCTIONS		GROSS PAY FOR THIS PREVAILING RATE JOB		CHECK # AND NET PAY	
1		XYZ Corporation 2 Main Street Yanville, CT 06389		DOT 105-296, Route 82		WEEKLY PAYROLL							Travelers Insurance Company POLICY # #BAC8888928		FICA		GROSS PAY FOR THIS PREVAILING RATE JOB		#123 \$ xxx.xx	
PERSON/WORKER ADDRESS and SECTION		APPR RATE MALE/FEMALE AND RACE*		WORK CLASSIFICATION		DAY AND DATE							TOTAL DEDUCTIONS		GROSS PAY FOR THIS PREVAILING RATE JOB		CHECK # AND NET PAY			
Robert Craft 81 Maple Street Williamantic, CT 06226		MIC		Electrical Lineman E-1 1234567 Owner OSHA 123456		S	M	T	W	TH	F	S	Total Hours		GROSS PAY FOR ALL WORK PERFORMED THIS WEEK		GROSS PAY FOR THIS PREVAILING RATE JOB		#123 \$ xxx.xx	
Ronald Jones 212 Elm Street Norwich, CT 06360		65% MB		Electrical Apprentice OSHA 234567		20	21	22	23	24	25	26	Total O/T Hours		\$ 1,582.80		\$ 1,582.80		#124 \$ xxx.xx	
Franklin T. Smith 234 Washington Rd. New London, CT 06320 SECTION B		M/H		Project Manager				8					Total O/T Hours		\$ 1,500.00		\$ 1,500.00		#125 xxx.xx	
						HOURS WORKED EACH DAY							TOTAL DEDUCTIONS		GROSS PAY FOR ALL WORK PERFORMED THIS WEEK		GROSS PAY FOR THIS PREVAILING RATE JOB		CHECK # AND NET PAY	
													FICA							
													FEDERAL STATE							
													WITH- HOLDING							
													WITH- HOLDING							
													LIST OTHER							
													P-xxxx							
													G-xxxx							
													M-xxx.x							

7/13/2009
WWS-CPI

*SEE REVERSE SIDE

PAGE NUMBER 1 OF 2

OSHA 10 -ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care Blue Cross 4) Disability _____
- 2) Pension or retirement _____ 5) Vacation, holiday _____
- 3) Life Insurance Utopia 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of 9/26/09,

I, Robert Craft of XYZ Corporation, (hereafter known as Employer) in my capacity as Owner (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:
 - a) The records submitted are true and accurate;
 - b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
 - c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
 - d) Each such employee of the Employer is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
 - e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
 - f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.
2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such employee's name first appears.

Robert Craft owner 10/2/09
 (Signature) (Title) Submitted on (Date)

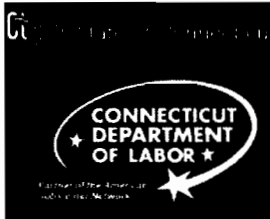
Section B: Applies to CONNDOT Projects ONLY

That pursuant to CONNDOT contract requirements for reporting purposes only, all employees listed under Section B who performed work on this project are not covered under the prevailing wage requirements defined in Connecticut General Statutes Section 31-53.

Robert Craft owner 10/2/09
 (Signature) (Title) Submitted on (Date)

Note: CTDOL will assume all hours worked were performed under Section A unless clearly delineated as Section B WWS-CPI as such. Should an employee perform work under both Section A and Section B, the hours worked and wages paid must be segregated for reporting purposes.

THIS IS A PUBLIC DOCUMENT
DO NOT INCLUDE SOCIAL SECURITY NUMBERS



Governor Dannel P. Malloy

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Commission For Worker
Misclassification \(JEC\)](#)[Stop Work Orders](#)[Reports of Activities](#)[FAQs](#)[Newsroom](#)[Contact Us](#)**OCCUPATIONAL CLASSIFICATION BULLETIN**

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53.

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification.

Below are additional clarifications of specific job duties performed for certain classifications:

- **ASBESTOS WORKERS**

- Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

- **ASBESTOS INSULATOR**

- Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

- **BOILERMAKERS**

- Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

- **BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS**

- Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

- **CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS**

- Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

- **CLEANING LABORER**

- The clean up of any construction debris and the general cleaning, including sweeping, wash down, mopping, wiping of the construction facility, washing, polishing, dusting, etc., prior to the issuance of a certificate of occupancy falls under the *Labor classification*.

- **DELIVERY PERSONNEL**

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.
- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the

drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer/tradesman and not a delivery personnel.

- **ELECTRICIANS**

- Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. ***License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.**

- **ELEVATOR CONSTRUCTORS**

- Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. ***License required by Connecticut General Statutes: R-1,2,5,6.**

- **FORK LIFT OPERATOR**

- Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.
- Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- **GLAZIERS**

- Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which requires either a blended rate or equal composite workforce.

- **IRONWORKERS**

- Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which requires either a blended rate or equal composite workforce. Insulated metal and insulated composite panels are still installed by the Ironworker.

- **INSULATOR**

- Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings. Past practice using the applicable licensed trades, Plumber, Sheet Metal, Sprinkler Fitter, and Electrician, is not inconsistent with the Insulator classification and would be permitted.

- **LABORERS**

- Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- **PAINTERS**

- Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hanging+ for any and all types of building and residential work.

- **LEAD PAINT REMOVAL**

- Painter's Rate
 1. Removal of lead paint from bridges.
 2. Removal of lead paint as preparation of any surface to be repainted.
 3. Where removal is on a Demolition project prior to reconstruction.
- Laborer's Rate
 1. Removal of lead paint from any surface NOT to be repainted.
 2. Where removal is on a *TOTAL* Demolition project only.

- **PLUMBERS AND PIPEFITTERS**

- Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ***License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.**

- **POWER EQUIPMENT OPERATORS**

- Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ***License required, crane operators only,**

per Connecticut General Statutes.**• ROOFERS**

- Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (tear-off and/or removal of any type of roofing and/or clean-up of any and all areas where a roof is to be relaid)

• SHEETMETAL WORKERS

- Fabricate, assemble, install and repair sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, fascia, louvers, partitions, wall panel siding, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Insulated metal and insulated composite panels are still installed by the Iron Worker. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers.

• SPRINKLER FITTERS

- Installation, alteration, maintenance and repair of fire protection sprinkler systems. ***License required per Connecticut General Statutes: F-1,2,3,4.**

• TILE MARBLE AND TERRAZZO FINISHERS

- Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

• TRUCK DRIVERS**○ Definitions:**

- 1) "Site of the work" (29 Code of Federal Regulations (CFR) 5.2(l)(b) is the physical place or places where the building or work called for in the contract will remain and any other site where a significant portion of the building or work is constructed, provided that such site is established specifically for the performance of the contract or project;
 - (a) Except as provided in paragraph (l) (3) of this section, job headquarters, tool yards, batch plants, borrow pits, etc. are part of the "site of the work"; provided they are dedicated exclusively, or nearly so, to the performance of the contract or project, and provided they are adjacent to "the site of work" as defined in paragraph (e)(1) of this section;
 - (b) Not included in the "site of the work" are permanent home offices, branch plant establishments, fabrication plants, tool yards etc, of a contractor or subcontractor whose location and continuance in operation are determined wholly without regard to a particular State or political subdivision contract or uncertain and indefinite periods of time involved of a few seconds or minutes duration and where the failure to count such time is due to consideration justified by industrial realities (29 CFR 785.47)
- 2) "Engaged to wait" is waiting time that belongs to and is controlled by the employer which is an integral part of the job and is therefore compensable as hours worked. (29 CFR 785.15)
- 3) "Waiting to be engaged" is waiting time that an employee can use effectively for their own purpose and is not compensable as hours worked. (29 CFR 785.16)
- 4) "De Minimus" is a rule that recognizes that unsubstantial or insignificant periods of time which cannot as a practical administrative matter be precisely recorded for payroll purposes, may be disregarded. This rule applies only where there are uncertain and indefinite periods of time involved of a short duration and where the failure to count such time is due to consideration justified by worksite realities. For example, with respect to truck drivers on prevailing wage sites, this is typically less than 15 minutes at a time.

○ Coverage of Truck Drivers on State or Political subdivision Prevailing Wage Projects

- Truck drivers are covered for payroll purposes under the following conditions:
 - Truck Drivers for time spent working on the site of the work.
 - Truck Drivers for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimus
 - Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
 - Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract or project where a significant portion of such building or work is constructed and the physical places where the building or work outlined in the contract will remain.

For example: Truck drivers delivering asphalt are covered under prevailing wage while "engaged to wait" on the site

and when directly involved in the paving operation, provided the total time is not "de minimus"

- Truck Drivers **are not** covered in the following instances:
 - Material delivery truck drivers while off "the site of the work"
 - Truck Drivers traveling between a prevailing wage job and a commercial supply facility while they are off the "site of the work"
 - Truck drivers whose time spent on the "site of the work" is de minimus, such as under 15 minutes at a time, merely to drop off materials or supplies, including asphalt.

These guidelines are similar to U.S. Labor Department policies. The application of these guidelines may be subject to review based on factual considerations on a case by case basis.

For example:

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

Any questions regarding the proper classification should be directed to:

*Public Contract Compliance Unit
Wage and Workplace Standards Division
Connecticut Department of Labor
200 Folly Brook Blvd, Wethersfield, CT 06109
(860) 263-6543*

200 Folly Brook Boulevard, Wethersfield, CT 06109 / Phone: 860-263-6000
Home | CT gov Home | Send Feedback<%end if%><%if cbool (request.Cookies(Application("HOME_NAME"))("AA"))=true and
request.Cookies(Application("HOME_NAME"))("CA")<>"CF83CBC7" then call Session_WriteString(" | Admin") end if%>
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**Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES**

⇒ Please Note: If the “Benefits” listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the “Benefits” section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons
(Building Construction) and
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

- a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

- a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators
(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year’s Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

- a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

- a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

- a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

Project: Stony Brook Transmission Main Renewal

**Minimum Rates and Classifications
for Heavy/Highway Construction**

**Connecticut Department of Labor
Wage and Workplace Standards Division**

ID#: H 25855

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number:

Project Town: Montville

FAP Number:

State Number:

Project: Stony Brook Transmission Main Renewal

CLASSIFICATION	Hourly Rate	Benefits
1) Boilermaker	33.79	34% + 8.96
<hr/>		
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	34.72	32.15
<hr/>		
2) Carpenters, Piledrivermen	32.60	25.34
<hr/>		
2a) Diver Tenders	32.60	25.34
<hr/>		

As of:

Friday, March 22, 2019

Project: Stony Brook Transmission Main Renewal

3) Divers	41.06	25.34
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03a) Millwrights	33.14	25.74
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4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	49.75	21.05
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4a) Painters: Brush and Roller	33.62	21.05
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4b) Painters: Spray Only	36.62	21.05
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4c) Painters: Steel Only	35.62	21.05
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4d) Painters: Blast and Spray	36.62	21.05
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As of:

Friday, March 22, 2019

Project: Stony Brook Transmission Main Renewal

4e) Painters: Tanks, Tower and Swing 35.62 21.05

5) Electrician (Trade License required: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9) 40.00 25.97+3% of gross wage

6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection 35.47 35.14 + a

7) Plumbers (Trade License required: (P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2) and Pipefitters (Including HVAC Work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4 G-1, G-2, G-8, G-9) 42.62 31.21

---LABORERS----

8) Group 1: Laborer (Unskilled), Common or General, acetylene burner, concrete specialist 30.05 20.10

9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen 30.30 20.10

As of:

Friday, March 22, 2019

Project: Stony Brook Transmission Main Renewal

10) Group 3: Pipelayers 30.55 20.10

11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders 30.55 20.10
(cement/concrete), catch basin builders, asphalt rakers, air track operators, block
paver, curb setter and forklift operators

12) Group 5: Toxic waste removal (non-mechanical systems) 32.05 20.10

13) Group 6: Blasters 31.80 20.10

Group 7: Asbestos/lead removal, non-mechanical systems (does not include 31.05 20.10
leaded joint pipe)

Group 8: Traffic control signalmen 16.00 20.10

Group 9: Hydraulic Drills 29.30 18.90

Project: Stony Brook Transmission Main Renewal

---LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and
Liner Plate Tunnels in Free Air.---

13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	32.22	20.10 + a
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13b) Brakemen, Trackmen	31.28	20.10 + a
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---CLEANING, CONCRETE AND CAULKING TUNNEL---

14) Concrete Workers, Form Movers, and Strippers	31.28	20.10 + a
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15) Form Erectors	31.60	20.10 + a
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---ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL
IN FREE AIR:---

Project: Stony Brook Transmission Main Renewal

16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers	31.28	20.10 + a
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17) Laborers Topside, Cage Tenders, Bellman	31.17	20.10 + a
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18) Miners	32.22	20.10 + a
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---TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED
AIR: ----

18a) Blaster	38.53	20.10 + a
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19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	38.34	20.10 + a
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20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	36.41	20.10 + a
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As of:

Friday, March 22, 2019

Project: Stony Brook Transmission Main Renewal

21) Mucking Machine Operator	39.11	20.10 + a
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---TRUCK DRIVERS---(*see note below)

Two axle trucks	29.13	23.33 + a
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Three axle trucks; two axle ready mix	29.23	23.33 + a
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Three axle ready mix	29.28	23.33 + a
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Four axle trucks, heavy duty trailer (up to 40 tons)	29.33	23.33 + a
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Four axle ready-mix	29.38	23.33 + a
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As of:

Friday, March 22, 2019

Project: Stony Brook Transmission Main Renewal

Heavy duty trailer (40 tons and over)	29.58	23.33 + a
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Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	29.38	23.33 + a
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---POWER EQUIPMENT OPERATORS---

Group 1: Crane handling or erecting structural steel or stone, hoisting engineer (2 drums or over), front end loader (7 cubic yards or over), Work Boat 26 ft. & Over, Tunnel Boring Machines. (Trade License Required)	39.55	24.30 + a
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Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	39.23	24.30 + a
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Group 3: Excavator/Backhoe under 2 cubic yards; Cranes (under 100 ton rated capacity), Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.). (Trade License Required)	38.49	24.30 + a
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Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper)	38.10	24.30 + a
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Project: Stony Brook Transmission Main Renewal

Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24" Mandrell)	37.51	24.30 + a
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Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	37.51	24.30 + a
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Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	37.20	24.30 + a
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Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and Under Mandrel).	36.86	24.30 + a
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Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	36.46	24.30 + a
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Group 9: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder).	36.03	24.30 + a
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Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	33.99	24.30 + a
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Project: Stony Brook Transmission Main Renewal

Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	33.99	24.30 + a
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Group 12: Wellpoint Operator.	33.93	24.30 + a
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Group 13: Compressor Battery Operator.	33.35	24.30 + a
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Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	32.21	24.30 + a
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Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	31.80	24.30 + a
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Group 16: Maintenance Engineer/Oiler	31.15	24.30 + a
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Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	35.46	24.30 + a
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Project: Stony Brook Transmission Main Renewal

Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	33.04	24.30 + a
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**NOTE: SEE BELOW

---LINE CONSTRUCTION---(Railroad Construction and Maintenance)---

20) Lineman, Cable Splicer, Technician	48.19	6.5% + 22.00
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21) Heavy Equipment Operator	42.26	6.5% + 19.88
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22) Equipment Operator, Tractor Trailer Driver, Material Men	40.96	6.5% + 19.21
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23) Driver Groundmen	26.50	6.5% + 9.00
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As of:

Friday, March 22, 2019

Project: Stony Brook Transmission Main Renewal

23a) Truck Driver	40.96	6.5% + 17.76
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---LINE CONSTRUCTION---

24) Driver Groundmen	30.92	6.5% + 9.70
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25) Groundmen	22.67	6.5% + 6.20
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26) Heavy Equipment Operators	37.10	6.5% + 10.70
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27) Linemen, Cable Splicers, Dynamite Men	41.22	6.5% + 12.20
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28) Material Men, Tractor Trailer Drivers, Equipment Operators	35.04	6.5% + 10.45
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As of:

Friday, March 22, 2019

Project: Stony Brook Transmission Main Renewal

01) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters. **See Laborers Group 5 and 7**

As of:

Friday, March 22, 2019

Project: Stony Brook Transmission Main Renewal

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.*

***Note: Hazardous waste premium \$3.00 per hour over classified rate*

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)

2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson

3) Cranes (under 100 ton rated capacity)

Crane with 150 ft. boom (including jib) - \$1.50 extra

Crane with 200 ft. boom (including jib) - \$2.50 extra

Crane with 250 ft. boom (including jib) - \$5.00 extra

Crane with 300 ft. boom (including jib) - \$7.00 extra

Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

~~Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing state work ~~

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

As of:

Friday, March 22, 2019

Project: Stony Brook Transmission Main Renewal

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~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 clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of:

Friday, March 22, 2019

APPENDIX A

State of Connecticut Executive Orders

M. Jodi Rell Archived Website

STATE OF CONNECTICUT

BY HER EXCELLENCY

M. JODI RELL

GOVERNOR

EXECUTIVE ORDER NO. 3

WHEREAS, the state government contracting process and procedures must be open, honest fair and accessible at all times; and

WHEREAS, a growing demand for information in electronic form and for direct access to electronic records is changing the way the public accesses government information and documents; and

WHEREAS, making state bids and contracts easily available to the public and vendor community at all times in a single electronic location will increase the ease in which information is exchanged; and

WHEREAS, a single location for information regarding the purchase of goods and services will provide for more accurate and less cumbersome auditing practices and procedures; and

WHEREAS, a single portal for procurement information will increase transparency of the procurement process; and

WHEREAS, a single location for information regarding the purchase of goods and services will increase interest in vendors in submitting competitive bids; and

WHEREAS, an increased interest by vendors and an increased transparency of the procurement process will result in greater and more active participation in the state contracting process by small businesses and women and minority owned enterprises; and

WHEREAS, a single location for such information will facilitate the communication of changes and amendments to state contracts; and

WHEREAS, a single portal for procurement information will reduce postage and paper expenses, internal staffing time and advertising costs to the extent permitted by state law and as reasonably practicable and will increase the efficiency of the procurement process.

NOW, THEREFORE, I, M. Jodi Rell, Governor of the State of Connecticut, acting by virtue of the authority vested in me by the Constitution and by the statutes of this state, do hereby **ORDER** and **DIRECT** that:

(1) The Department of Administrative Services shall establish and maintain a single electronic portal available on the World Wide Web and located on the Department of Administrative Services' website (the "State Contracting Portal") for purposes of posting all contracting opportunities with state agencies in the executive branch and all higher education agencies and institutions.

(2) The State Contracting Portal shall, among other things, include: (i) all bids, requests for proposals, related materials and all resulting contracts and agreements by state agencies; (ii) a searchable database for locating information; (iii) A State Procurement & Contract Manual or other similar information designated by the Department of Administrative Services as describing approved contracting processes and procedures; and (iv) prominent features to encourage the active recruitment and participation of small businesses and women and minority owned enterprises in the

State contracting process.

(3) All state agencies in the executive branch and all higher education agencies and institutions shall post all bids, requests for proposals and all resulting contracts and agreements on the State Contracting Portal and shall, with the assistance of the Department of Administrative Services and the Department of Information Technology as needed, develop the infrastructure and capability to electronically communicate with the State Contracting Portal.

(4) All state agencies in the executive branch and all higher education agencies and institutions shall develop written policies and procedures to ensure that information posted to the State Contracting Portal is done in a timely, complete and accurate manner consistent with the highest legal and ethical standards of state government.

(5) The Department of Administrative Services shall periodically report to the Office of the Governor on the progress of all state agencies in the executive branch and all higher education agencies and institutions in developing the capacity, infrastructure, policies and procedures to electronically communicate with the State Contracting Portal as well as the Department of Administrative Services' progress toward establishment and maintenance of the State Contracting Portal.

(6) This order shall be effective upon signing.

Dated at Hartford, Connecticut, this 15th day of December, 2004.

M. JODI RELL
Governor

The Executive Office of Governor John G. Rowland

STATE OF CONNECTICUT

BY HIS EXCELLENCY

THOMAS J. MESKILL

GOVERNOR

EXECUTIVE ORDER NO. SEVENTEEN

WHEREAS, Section 31-237 of the General Statutes of Connecticut as amended requires the maintaining of the established free services of the Connecticut State Employment Service to both employers and prospective employees and

WHEREAS, Section 31-5 of the General Statutes of Connecticut requires that no compensation or fee shall be charged or received directly or indirectly for the services of the Connecticut State Employment Service and

WHEREAS, large numbers of our citizens who have served in the Armed Forces of our nation are returning to civilian life in our state and seeking employment in civilian occupations and

WHEREAS, we owe a duty as well as gratitude to these returning veterans including the duty to find suitable employment for them and

WHEREAS, many of our handicapped citizens are fully capable of employment and are entitled to be placed in suitable employment and

WHEREAS, many of the citizens of our state who are unemployed are unaware of the job openings and employment opportunities which do in fact exist in our state and

WHEREAS, notwithstanding the free services of the Connecticut State Employment Service, many of our Connecticut employers do not use its free services or do not avail themselves fully of all of the services offered,

NOW, THEREFORE, I THOMAS J. MESKILL, Governor of the State of Connecticut, acting by virtue of the authority vested in me under the fourth article of the Constitution of the State and in accordance with Section 3-1 of the General Statutes, do hereby ORDER and DIRECT, as follows, by this Executive Order:

I

The Labor Commissioner shall be responsible for the administration of this Order and shall do all acts necessary and appropriate to achieve its purpose. Upon promulgation of this Order, the Commissioner of Finance and Control shall issue a directive forthwith to all state agencies, that henceforth all state contracts and subcontracts for construction on public buildings, other public works and goods and services shall contain a provision rendering such contract or subcontract subject to this Order, and that such contract or subcontract may be cancelled, terminated or suspended by the Labor Commissioner for violation of or noncompliance with this Order, notwithstanding that the Labor Commissioner is not a party to such contract or subcontract.

II

Every contractor and subcontractor having a contract with the State or any of its agencies, boards, commissions, or departments, every individual partnership, corporation, or business entity having business with the state or who or which seeks to do business with the state, and

every bidder or prospective bidder who submits a bid or replies to an invitation to bid on any state contract shall list all employment openings with the office of the Connecticut State Employment Service in the area where the work is to be performed or where the services are to be rendered.

III

All state contracts shall contain a clause which shall be a condition of the contract that the contractor and any subcontractor holding a contract directly under the contractor shall list all employment openings with the Connecticut State Employment Service. The Labor Commissioner may allow exceptions to listings of employment openings which the contractor proposes to fill from within its organizations from employees on the rolls of the contractor on the date of publication of the invitation to bid or the date on which the public announcement was published or promulgated advising of the program concerned.

IV

Each contracting agency of the state shall be primarily responsible for obtaining compliance with this Executive Order. Each contracting agency shall appoint or designate from among its personnel one or more persons who shall be responsible for compliance with the objectives of the Order.

V

The Labor Commissioner shall be and is hereby empowered to inspect the books, records, payroll and personnel data of each individual or business entity subject to this Executive Order and may hold hearings or conferences, formal or informal, in pursuance of the duties and responsibilities hereunto delegated to the Labor Commissioner.

VI

The Labor Commissioner or any agency officer or employee in the executive branch designated by regulation of the Labor Commissioner may hold such hearings, public or private, as the Labor Commissioner may deem advisable for compliance, enforcement or educational purposes under this Order.

VII

- a. The Labor Commissioner may hold or cause to be held hearings, prior to imposing, ordering, or recommending the imposition of penalties and sanctions under this Order. In accordance herewith, the Commissioner or the appropriate contracting agency may suspend, cancel, terminate, or cause to be suspended, cancelled, or terminated in accordance with law any contract or any portion or portions thereof for failure of the contractor or subcontractor to comply with the listing provisions of the contract. Contracts may be cancelled, terminated, suspended absolutely or their continuance conditioned upon a program for future compliance approved by the contracting agency.
- b. Any contracting agency taking any action authorized by this Order, whether on its own motion or as directed by the Labor Commissioner, shall promptly notify him of such action. Whenever the Labor Commissioner makes a determination under this Order, he shall promptly notify the appropriate contracting agency of the action recommended. The agency shall report the results to the Labor Commissioner promptly.

VIII

If the Labor Commissioner shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless he has satisfactorily complied with the provisions of this Order.

This Order shall become effective sixty days after the date of this Order.

Dated at Hartford, Connecticut, this 15th day of February, 1973.

Thomas J. Meskill, GOVERNOR

Filed this 15th day of February, 1973.

SECRETARY OF THE STATE
(DEPUTY)

Content Last Modified on 4/12/2004 2:52:54 PM

State of Connecticut by His Excellency

John G. Rowland

Executive Order No. 16

WHEREAS, the State of Connecticut recognizes that workplace violence is a growing problem that must be addressed; and

WHEREAS, the State is committed to providing its employees a reasonably safe and healthy working environment, free from intimidation, harassment, threats, and /or violent acts; and

WHEREAS, violence or the threat of violence by or against any employee of the State of Connecticut or member of the public in the workplace is unacceptable and will subject the perpetrator to serious disciplinary action up to and including discharge and criminal penalties.

NOW, THEREFORE, I, John G. Rowland, Governor of the State of Connecticut, acting by virtue of the authority vested in me by the Constitution and by the statutes of this state, do hereby ORDER and DIRECT:

1. That all state agency personnel, contractors, subcontractors, and vendors comply with the following **Violence in the Workplace Prevention Policy**:

The State of Connecticut adopts a statewide zero tolerance policy for workplace violence.

Therefore, except as may be required as a condition of employment

- No employee shall bring into any state worksite any weapon or dangerous instrument as defined herein.
- No employee shall use, attempt to use, or threaten to use any such weapon or dangerous instrument in a state worksite.
- No employee shall cause or threaten to cause death or physical injury to any individual in a state worksite.

Weapon means any firearm, including a BB gun, whether loaded or unloaded, any knife (excluding a small pen or pocket knife), including a switchblade or other knife having an automatic spring release device, a stiletto, any police baton or nightstick or any martial arts weapon or electronic defense weapon.

Dangerous instrument means any instrument, article, or substance that, under the circumstances, is capable of causing death or serious physical injury.

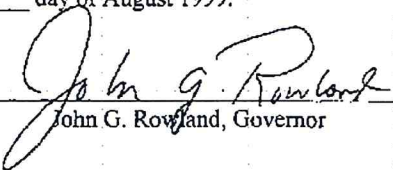
Violation of the above reasonable work rules shall subject the employee to disciplinary action up to and including discharge.

2. That each agency must prominently post this policy and that all managers and supervisors must clearly communicate this policy to all state employees.

Executive Order No. 16

3. That all managers and supervisors are expected to enforce this policy fairly and uniformly.
4. That any employee who feels subjected to or witnesses violent, threatening, harassing, or intimidating behavior in the workplace immediately report the incident or statement to their supervisor, manager, or human resources office.
5. That any employee who believes that there is a serious threat to their safety or the safety of others that requires immediate attention notify proper law enforcement authorities and his or her manager or supervisor.
6. That any manager or supervisor receiving such a report shall immediately contact their human resources office to evaluate, investigate and take appropriate action.
7. That all parties must cooperate fully when questioned regarding violations of this policy.
8. That all parties be advised that any weapon or dangerous instrument at the worksite will be confiscated and that there is no reasonable expectation of privacy with respect to such items in the workplace.
9. That this order applies to all state employees in the executive branch.
10. That each agency will monitor the effective implementation of this policy.
11. That this order shall take effect immediately.


Dated in Hartford, Connecticut this 4th day of August 1999.



John G. Rowland, Governor

Filed this 4th day of August 1999





Susan Bysiewicz, Secretary of the State

APPENDIX B

Regulations of Connecticut State Agencies Subsection (g), (h), (j) and (o) of Section 22a-482-4

Sec. 22a-482-4 (g) Required Provisions for Construction Contracts

Municipalities must include, when appropriate, the following clauses or their equivalent in each subagreement and may substitute other terms for "grantee" and "contractor" in their subagreements.

(1) Supersession. The municipality and the contractor agree that the following general provisions or their equivalent apply to eligible work to be performed under this contract and that these provisions supersede any conflicting provisions of this contract;

(2) Privity of contract. This contract is expected to be funded in part by the State of Connecticut. Neither the State, nor any of its departments, agencies, or employees is or will be a party to this contract or any lower tier subcontract. This contract is to be subject to regulations adopted in accordance with Section 22a-482 of the Connecticut General Statutes.

(3) Changes for contracts for construction.

(A) The municipality may, at any time, without notice to any surety, by written order designated or indicated to be a change order, make any change in the work within the general scope of the subagreement, including but not limited to changes:

(i) In the specifications (including drawings and designs);

(ii) In the time, method, or manner of performance of the work;

(iii) In the municipality-furnished facilities, equipment, materials, services, or site; or

(iv) Directing acceleration in the performance of the work.

(B) A change order shall also be any other written or oral order (including direction, instruction, interpretation or determination) from the municipality which causes any change, provided the contractor gives the municipality written notice stating the date, circumstances, and source of the order and that the contractor regards the order as a change order.

(C) Except as provided in this clause, no order, statement, or conduct of the municipality shall be treated as a change under this clause or entitle the contractor to an equitable adjustment.

(D) If any change under this clause causes an increase or decrease in the contractor's cost or the time required to perform any part of the work under this contract, whether or not changed by any order, an equitable adjustment shall be made and the subagreement modified in writing. However, for claims based on defective specifications, no claim for any change under (B) above shall be allowed for any costs incurred more than 20 days before the contractor gives written notice as required in paragraph (B). In the case of defective specifications for which the municipality is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the contractor in attempting to comply with those defective specifications.

(E) If the contractor intends to assert a claim for an equitable adjustment under this

clause, he must, within thirty (30) days after receipt of a written change order under(A) of this change clause or the furnishing of a written notice under (B) of this clause, submit to the grantee a written statement setting forth the general nature and monetary extent of such claim. The municipality may extend the 30-day period. The statement of claim may be included in the notice under (B) of this clause.

(F) No claim by the contractor for an equitable adjustment shall be allowed if made after final payment under this contract.

(4) Changes for contracts for supplies.

(A) The municipality may at any time, by a written order and without notice to the sureties, make changes within the general scope of this subagreement in any one or more of the following:

- (i) Drawings, designs, or specifications, where the supplies to be furnished are to be specially manufactured for the municipality;
- (ii) Method of shipment or packing; and
- (iii) Place of delivery.

(B) If any change causes an increase or decrease in the cost or the time required to perform any part of the work under this subagreement, whether or not changed by any such order, an equitable adjustment shall be made in the subagreement price or delivery schedule, or both, and the subagreement shall be modified in writing. Any claim by the contractor for adjustment under this clause must be asserted within 30 days from the date of receipt by the contractor of the notification of change. If the municipality decides that the facts justify such action, the municipality may receive and act upon any such claim asserted at any time before final payment under this subagreement. Where the cost of property made obsolete or excess as a result of a change is included in the contractor's claim for adjustment, the grantee shall have the right to prescribe the manner of disposition of such property. Nothing in this clause shall excuse the contractor from proceeding with the subagreement as changed.

(5) Differing site conditions.

(A) The contractor shall promptly, and before such conditions are disturbed, notify the municipality in writing of:

- (i) Subsurface or latent physical conditions at the site differing materially from those indicated in this subagreement; or
- (ii) Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this subagreement. The municipality shall promptly investigate the conditions and, if it finds that conditions are materially different and will cause an increase or decrease in the contractor's cost or the time required to perform any part of the work under this subagreement, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the subagreement modified in writing.

(B) No claim of the contractor under this clause shall be allowed unless the contractor has given notice required in (A) of this clause. However, the municipality may extend the prescribed time.

(C) No claim by the contractor for an equitable adjustment shall be allowed if asserted after final payment under this subagreement.

(6) Suspension of work.

(A) The municipality may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work for such period of time as the municipality may determine to be appropriate for the convenience of the municipality.

(B) If the performance of all or any part of the work is suspended, delayed, or interrupted for an unreasonable period of time by an act of the municipality in administration of the contract, (or if no time is specified, within a reasonable time), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the contract modified in writing. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the contractor, or for which an equitable adjustment is provided for or excluded under any other provision of the contract.

(C) No claim under this clause shall be allowed for any costs incurred more than 20 days before the contractor notified the municipality in writing of the act or failure to act involved (this requirement does not apply to a claim resulting from a suspension order), and unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of such suspension, delay, or interruption, but not later than the date of final payment under the contract.

(7) Termination.

(A) This contract may be terminated in whole or in part in writing by either party in the event of substantial failure by the party to fulfill its obligations under this subagreement through no fault of the terminating party, provided that no termination may be effected unless the other party is given not less than ten (10) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and an opportunity for consultation with the terminating party prior to termination.

(B) This contract may be terminated in whole or in part in writing by the municipality for its convenience, provided that the contractor is given not less than ten (10) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate and an opportunity for consultation with the terminating party prior to termination.

(C) If termination for default is effected by the municipality, an equitable adjustment in the price provided for in this contract shall be made but no amount shall be allowed for anticipated profit on unperformed services or other work, and any payment due to the contractor at the time of

termination may be adjusted to cover any additional costs to the municipality because of the contractor's default. If termination for default is effected by the contractor, or if termination for convenience is effected by the municipality, the equitable adjustment shall include a reasonable profit for services or other work performed. The equitable adjustment for any termination shall provide for payment to the contractor for services rendered and expenses incurred prior to the termination in addition to termination settlement costs reasonably incurred by the contractor relating to commitments which had become firm prior to the termination.

(D) Upon receipt of a termination action pursuant to (A) or (B) above, the contractor shall promptly discontinue all services affected (unless the notice directs otherwise), and deliver or otherwise make available to the recipient all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the contractor in performing this contract whether completed or in process.

(E) Upon termination under (A) or (B) of this clause the municipality may take over the work and may award another party a contract to complete the work under this contract.

(F) If, after termination for failure of the contractor to fulfill contractual obligations, it is determined that the contractor had not failed to fulfill contractual obligations, the termination shall be deemed to have been for the convenience of the municipality. In such event, adjustment of the price provided for in this contract shall be made as provided in (C) of this clause.

(8) Remedies. Except as may be otherwise provided in this contract, all claims, counterclaims, disputes, and other matters in question between the municipality and the contractor arising out of or relating to this contract or the breach thereof will be decided by arbitration if the parties mutually agree or in a court of competent jurisdiction within the district in which the municipality is located.

(9) Price reduction for defective cost or pricing data.

NOTE - This clause is applicable to any contract negotiated between the municipality and its contractor in excess of \$500,000; negotiated change orders in excess of \$500,000 or 10 percent of the contract, whichever is less, affecting the price of a formally advertised, competitively awarded, fixed price contract; or any lower tier subcontract or purchase order in excess of \$500,000 or 10 percent of the assistance agreement, whichever is less, under a contract other than a formally advertised, competitively awarded, fixed price subagreement. This clause is not applicable for contracts to the extent that they are awarded on the basis of effective price competition. The contractor and subcontractor, where appropriate, warrant that cost and pricing data submitted for evaluation with respect to negotiation of prices for negotiated contracts, lower tier subcontracts and change orders is based on current, accurate, and complete data supported by their books and records. If the municipality or the Commissioner determines that any price (including profit) negotiated in connection with this contract, any lower tier subcontract, or any amendment thereunder was increased by any significant sums because the data provided was incomplete, inaccurate, or not current at the time of submission, then such price, cost or profit shall be reduced accordingly, and the contract shall be modified in writing to reflect such reduction. Failure to agree on a reduction shall be subject to the remedies clause of this agreement.

NOTE - Since the contract is subject to reduction under this clause by reason of defective cost or pricing data submitted in connection with lower tier subcontracts, the contractor may wish to include a clause in each lower tier subcontract requiring the lower tier subcontractor to appropriately indemnify the contractor. It is also expected that any lower tier subcontractor subject to such indemnification will generally require substantially similar indemnification for defective cost or pricing data required to be submitted by lower tier contractors.

(10) Audit; Access to records.

(A) The contractor shall maintain books, records, documents, and other evidence directly pertinent to performance on grant work under this contract in accordance with generally accepted accounting principles and practices consistently applied. The contractor shall also maintain the financial information and data used by the contractor in the preparation or support of the cost submission required under Section 22a-482-4(g)(8) for any negotiated contract or change order and a copy of the cost summary submitted to the municipality. The municipality and the Commissioner or any of his authorized representatives shall have access to all such books, records, documents, and other evidence for the purpose of inspection, audit and copying during normal business hours. The contractor will provide proper facilities for such access and inspection.

(B) If this is a formally advertised, competitively awarded, fixed price contract, the contractor agrees to make (A) through (F) of this clause applicable to all negotiated change orders and contract amendments affecting the contract price. In the case of all other types of prime contracts, the contractor agrees to include (A) through (F) of this clause in all his subcontracts in excess of \$10,000 and to make paragraphs (A) through (F) of this clause applicable to all change orders directly related to project performance.

(C) Audits conducted under this provision shall be in accordance with generally accepted auditing standards and established procedures and guidelines of the reviewing or audit departments and meeting the requirements of Section 20-282 of the Connecticut General Statutes.

(D) The contractor agrees to disclose all information and reports resulting from access to records under (A) and (B) of this clause. (E) Records under (A) and (B) above shall be maintained and made available during performance on assisted work under this contract and until three years from the date of final State payment for the project. In addition, those records which relate to any dispute appeal arising under a grant assistance agreement, to litigation, to the settlement of claims arising out of such performance, or to costs or items to which an audit exception has been taken, shall be maintained and made available until three years after the date of resolution of such appeal, litigation, claim, or exception.

(F) This right of access clause (with respect to financial records) applies to:

(i) Negotiated prime subagreements;

(ii) Negotiated change orders or contract amendments in excess of \$10,000 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. However, this right of access does not apply to a prime contract, lower tier subcontract, or purchase order awarded after effective price competition, except with respect to records pertaining directly to contract performance, (excluding any financial records of the contractor); if there is any indication that fraud, gross abuse, or corrupt practices may be involved or if the contract is terminated for default or for convenience.

(11) Covenant against contingent fees. The contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the contractor for the purpose of securing business. For breach or violation of this warranty the grantee shall have the right to annul this agreement without liability or, at its discretion, to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

(12) Gratuities.

(A) If the municipality finds, after a notice and hearing, that the contractor, or any of the contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise), to any official, employee, or agent of the municipality or the State, in an attempt to secure a contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this agreement, the municipality may, by written notice to the contractor, terminate this agreement. The municipality may also pursue other rights and remedies that the law or this agreement provides. However, the existence of the facts on which the municipality bases such findings shall be in issue and may be reviewed in proceedings under the Remedies clause of this agreement.

(B) In the event this contract is terminated, as provided in (A) in this clause, the recipient may pursue the same remedies against the contractor as it could pursue in the event of a breach of the contract by the contractor and, as a penalty, in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the grantee) which shall be not less than three nor more than ten times the costs the contractor incurs in providing any such gratuities to any such officer or employee.

(13) Responsibility of the contractor.

(A) The contractor agrees to perform all work under this agreement in accordance with this agreement's designs, drawings, and specifications.

(B) The contractor warrants and guarantees for a period of one (1) year from the date of substantial completion of the system that the completed system is free from all defects due to faulty materials, equipment or workmanship; and the contractor shall promptly make whatever adjustments or corrections necessary to cure such defects, including repairs of any damage to other parts of the system resulting from such defects. The municipality shall give notice to the contractor of observed defects with reasonable promptness. In the event that the contractor fails

to make adjustments, repairs, corrections or other work that may be made necessary by such defect, the municipality may do so and charge the contractor the cost incurred. The performance bond shall remain in full force and effect through the guarantee period.

(C) The contractor's obligations under this clause are in addition to the contractor's other express or applied warranties under this agreement or State law and in no way diminish any other rights that the municipality may have against the contractor for faulty material, equipment, or work.

(14) Final payment. Upon satisfactory completion of the work performed under this agreement, as a condition before final payment under this agreement, or as a termination settlement under this agreement, the contractor shall execute and deliver to the municipality a release of all claims against the municipality arising under or by virtue of this agreement, except claims which are specifically exempted by the contractor to be set forth therein. Unless otherwise provided in this agreement or by State law or otherwise expressly agreed to by the parties to this agreement, final payment under this agreement or settlement upon termination of this agreement shall not constitute a waiver of the municipality's claims against the contractor or his sureties under this agreement or applicable performance and payment bonds.

Sec. 22a-482-4 (h) Procurement Requirements-General

(1) Applicability. This defines the responsibilities of the State and the municipality and the minimum procurement standards for each municipality's procurement system.

(2) Municipality responsibility.

(A) The municipality is responsible for the settlement and satisfactory completion in accordance with sound business judgement and good administrative practice of all contractual and administrative issues arising out of subagreements entered into under the assistance agreement. This includes issuance of invitations for bids or requests for proposals, selection of contractors, award of subagreements, settlement of protests, claims, disputes and other related procurement matters.

(B) The municipality shall maintain a subagreement administration system to assure that contractors perform in accordance with the terms, conditions and specifications of their subagreements.

(C) The municipality shall review its proposed procurement actions to avoid purchasing unnecessary or duplicative items.

(D) The municipality shall consider consolidating its procurement or dividing it into parts to obtain a more economical purchase.

(E) Where appropriate, the municipality shall make an analysis of lease versus purchase alternatives in its procurement actions.

(F) A municipality may request technical assistance from the Commissioner for the administration and enforcement of any subagreement awarded under this section. However, such assistance does not relieve the municipality of its responsibilities under this section.

(G) A municipality may use innovative procurement methods or procedures only if it receives the Commissioner's prior written approval.

(3) Municipality reporting requirements. The municipality shall request, in writing, the Commissioner's authorization to award each construction subagreement which has an aggregate value over \$10,000. The request shall include:

(A) Name, address, telephone number and employee identification number of the construction contractor;

(B) Amount of the award;

(C) Estimated starting and completion dates;

(D) Project number, name and site location of the project; and

(E) Copy of the tabulations of bids or offers and the name of each bidder or offeror.

(4) Copies of contract documents. The municipality must promptly submit to the Commissioner copies of any prime contract or modification thereof, and revisions to plans and specifications.

(5) Limitations on subagreement award.

(A) The municipality shall award subagreements only to responsible contractors that possess the potential ability to perform successfully under the terms and conditions of a proposed procurement. A responsible contractor is one that has:

(i) Financial resources, technical qualifications, experience, an organization and facilities adequate to carry out the project, or a demonstrated ability to obtain these;

(ii) Resources to meet the completion schedule contained in the subagreement;

(iii) A satisfactory performance record for completion of subagreements;

(iv) Accounting and auditing procedures adequate to control property, funds and assets; and

(v) Demonstrated compliance or willingness to comply with the civil rights, equal employment opportunity, labor laws and other statutory requirements.

(B) The municipality shall not make awards to contractors who have been suspended or debarred by Connecticut State Agencies.

(6) Violations. The municipality shall refer violations of law to the local or State officials having the proper jurisdiction.

(7) Competition.

(A) The municipality shall conduct all procurement transactions in a manner that provides maximum open and free competition.

(B) Procurement practices shall not unduly restrict or eliminate competition. Examples of practices considered to be unduly restrictive include:

(i) Noncompetitive practices between firms;

(ii) Organizational conflicts of interest;

(iii) Unnecessary, experience and bonding requirements;

(iv) Local laws, ordinances, regulations or procedures which give local bidders or proposers preference over other bidders or proposers in evaluating bids or proposals; and

(v) Placing unreasonable requirements on firms in order for them to qualify to do business.

(C) The municipality may use a prequalification list(s) of persons, firms or products if it:

- (i) Updates its prequalified list(s) at least every six months;
- (ii) Reviews and acts on each request for prequalification made more than thirty (30) days before the closing date for receipt of proposals or bid opening; and
- (iii) Gives adequate public notice of its prequalification procedures in accordance with the public notice procedures.

(D) A municipality may not use a prequalified list(s) of persons or firms if the procedure unnecessarily restricts competition.

(8) Profit.

(A) Municipalities must assure that only fair and reasonable profits are paid to contractors awarded subagreements under State assistance agreements.

(B) The municipality shall negotiate profit as a separate element of price for each subagreement in which there is no price competition, or where price is based on cost analysis.

(C) Where the municipality receives two or more bids, profit included in a formally advertised, competitively bid, fixed price subagreement shall be considered reasonable.

(D) Off-the-shelf or catalog supplies are exempt from this section.

(9) Use of small, minority, and women's businesses. The municipality must take affirmative steps to assure that small, minority, and women's businesses are used to the maximum extent practicable. The Commissioner may impose goals as conditions of financial assistances.

(10) Privity of subagreement. The State shall not be a party to any subagreement nor to any solicitation or request for proposals.

(11) Documentation.

(A) Procurement records and files for procurements in excess of \$10,000 shall include the following:

- (i) Basis for contractor selection;
- (ii) Written justification for selection of the procurement method;
- (iii) Written justification for use of any specification which does not provide for maximum free and open competition;
- (iv) Written justification for the type of subagreement;

(v) Basis for award cost or price, including a copy of the cost or price analysis made and documentation of negotiations; and

(vi) A municipality must state the reasons in writing for rejecting any or all bids and the justification for procurements on a noncompetitively negotiated basis and make them available for public inspection.

(12) Specifications.

(A) Nonrestrictive specifications.

(i) No specification for bids or statement of work in connection with such works shall be written in such a manner as to contain proprietary, exclusionary or discriminatory requirements other than those based upon performance, unless such requirements are necessary to test or demonstrate a specific thing or to provide for necessary interchangeability of parts and equipment, or at least two brand names or trade names of comparable quality or utility are listed and are followed by the words "or equal". If brand or trade names are specified, the municipality must be prepared to identify to the Commissioner, or in any protest action, the salient requirements (relating to the minimum needs of the project) which must be met by any offeror. The single base bid method of solicitation for equipment and parts for determination of a low, responsive bidder may not be utilized. With regard to materials, if a single material is specified, the municipality must be prepared to substantiate the basis for the selection of the material.

(ii) Project specifications shall, to the extent practicable, provide for maximum use of structures, machines, products, materials, construction methods, and equipment which are readily available through competitive procurement, or through standard or proven production techniques, methods, and processes.

(B) Sole source restriction. A specification shall not require the use of structures, materials, equipment, or processes which are known to be available only from a sole source, unless the Commissioner determines in advance that the municipality's engineer has adequately justified in writing that the proposed use meets the particular project's minimum needs or the Commissioner determines that use of a single source is necessary to promote innovation.

(C) Experience clause restriction. The general use of experience clauses requiring equipment manufacturers to have a record of satisfactory operation for a specified period of time or of bonds or deposits to guarantee replacement in the event of failure is restricted to special cases where the municipality's engineer adequately justifies any such requirement in writing. Where such justification has been made, submission of a bond or deposit shall be permitted instead of a specified experience period. The period of time for which the bond or deposit is required should not exceed the experience period specified.

(13) Force account work.

(A) The municipality must receive the Commissioner's prior written approval for use of the force account method for any planning, design work or construction work.

(B) The Commissioner may approve the force account method upon the municipality's demonstration that it possesses the necessary competence required to accomplish such work and that the work can be accomplished more economically by use of the force account method, or emergency circumstances dictate its use.

(C) Use of the force account method for construction work shall generally be limited to minor portions of a project.

(14) Code of conduct.

(A) The municipality shall maintain a written code or standards of conduct which shall govern the performance of its officers, employees, or agents engaged in the award and administration of subagreements supported by State funds. No employee, officer or agent of the municipality shall participate in the selection, award or administration of a subagreement supported by State funds if a conflict of interest, real or apparent, would be involved.

(B) Such a conflict would arise when:

(i) Any employee, officer or agent of the municipality, any member of the immediate families, or their partners, have a financial or other interest in the firm selected for award; or

(ii) An organization which may receive or has been awarded a subagreement employs, or is about to employ, any person under (B)(i) of this Section.

(C) The municipality's officers, employees or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from contractors, potential contractors or other parties to subagreements.

(D) Municipalities may set minimum rules where the financial interest is not substantial or the gift is an unsolicited item of nominal value.

(E) To the extent permitted by State or local law or regulations, the municipality's code of conduct shall provide for penalties, sanctions or other disciplinary actions for violations of the code by the municipality's officers, employees or agents or by contractors or their agents.

(15) Payment to consultants.

(A) For all State assistance agreements, the State will limit its participation in the salary rate (excluding overhead) paid to individual consultants retained by a municipality or by a municipality's contractors or subcontractors to the maximum daily rate for a GS-18 federal employee. (Municipality's may, however, pay contractors and subcontractors more than this amount.) This limitation applies to consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. The rate does not include transportation and subsistence costs for travel performed; municipalities will pay these in accordance with their normal travel reimbursement practices.

(B) Subagreements with firms for services which are awarded using these procurement requirements are not affected by this limitation.

(16) Cost and price considerations.

(A) The municipality shall conduct a cost analysis of all negotiated change orders and all negotiated subagreements estimated to exceed \$10,000.

(B) The municipality shall conduct a price analysis of all formally advertised procurements estimated to exceed \$10,000 if there are fewer than three bidders.

(C) For negotiated procurement, contractors and subcontractors shall submit cost or pricing data in support of their proposals to the municipality.

(17) Small purchases.

(A) Small Purchase Procurement. If the aggregate amount involved in any one procurement transaction does not exceed \$10,000, including estimated handling and freight charges, overhead and profit, the municipality may use small purchase procedures.

(B) Small Purchase Procedures. Small purchase procedures are relatively simple procurement methods that are sound and appropriate for procurement of services, supplies or other property costing in the aggregate not more than \$10,000.

(C) Requirements for Competition.

(i) Municipalities shall not divide a procurement into smaller parts to avoid the dollar limitation for competitive procurement.

(ii) Municipalities shall obtain price or rate quotations from an adequate number of qualified sources.

(18) Negotiation and award of subagreements.

(A) Unless the request for proposals states that award may be based on initial offers alone, the municipality must conduct meaningful negotiations with the best qualified offerors with acceptable proposals within the competitive range, and permit revisions to obtain best and final offers. The best qualified offerors must have equal opportunities to negotiate or revise their proposals. During negotiations, the municipality must not disclose the identity of competing offerors or any information from competing proposals.

(B) The municipality must award the subagreement to the responsible offeror whose proposal is determined in writing to be the most advantageous to the municipality, taking into consideration price and other evaluation criteria set forth in the request for proposals.

(C) The municipality must promptly notify unsuccessful offerors that their proposals were rejected.

(D) The municipality must document its procurement file to indicate how proposals were evaluated, what factors were used to determine the best qualified offerors within the competitive range, and what factors were used to determine the subagreement award.

(19) Optional selection procedure for negotiation and award of subagreement for architectural and engineering services.

(A) The municipality may evaluate and select an architect or engineer using the procedures in this subdivision in place of the procedures in "Negotiation and award of subagreements" in subdivision (18).

(B) The municipality may use responses from requests for statement of qualifications to determine the most technically qualified architects or engineers.

(C) After selecting and ranking the most qualified architects or engineers, the municipality will request technical proposals from those architects or engineers and inform them of the evaluation criteria the municipality will use to rank the proposals.

(D) The municipality shall then select and determine, in writing, the best technical proposal.

(E) After selecting the best proposal, the municipality shall attempt to negotiate fair and reasonable compensation with that offeror.

(F) If the municipality and the offeror of the best proposal cannot agree on the amount of compensation, the municipality shall formally terminate negotiations with that offeror. The municipality shall then negotiate with the offeror with the next best proposal. This process will continue until the municipality reaches agreement on compensation with an offeror with an acceptable proposal. Once the municipality terminates negotiations with an offeror, the municipality cannot go back and renegotiate with that offeror.

(20) Noncompetitive negotiation procurement method. Noncompetitive negotiation may be used only when the award of a subagreement is not feasible under small purchase, formal advertising, or competitive negotiation procedures. The municipality may award a noncompetitively negotiated subagreement only under the following circumstances:

(A) The item is available only from a single source;

(B) A public exigency or emergency exists and the urgency for the requirement will not permit a delay incident to competitive procurement; or

(C) After solicitation from a number of sources, competition is determined to be inadequate.

(21) Use of the same architect or engineer during construction

(A) If the municipality is satisfied with the qualifications and performance of the architect or engineer who provided any or all of the planning or design services for the project, it may wish to retain that firm or individual during construction of the project. The municipality may do so without further public notice and evaluation of qualifications provided that it received financial

assistance for the planning and/or design services and selected the architect or engineer in accordance with these procurement regulations.

(B) However, if the municipality uses the procedures in (A) to retain an architect or engineer, any construction subagreements between the architect or engineer and the municipality must meet the procurement provisions of Section 22a-482-4(i)(5).

(22) Negotiation of subagreements.

(A) Formal advertising, with adequate purchase descriptions, sealed bids, and public openings shall be the required method of procurement unless negotiation under (B) of this section is necessary to accomplish sound procurement.

(B) All negotiated procurement shall be conducted in a manner to provide to the maximum practicable extent open and free competition appropriate to the type of project work to be performed. The municipality is authorized to negotiate subagreements if any of the following conditions exist:

(i) Public exigency will not permit the delay incident to formally advertised procurement (e.g. an emergency procurement);

(ii) The aggregate amount involved does not exceed \$10,000;

(iii) The material or service to be procured is available from only one person or entity. If the procurement is expected to aggregate more than \$10,000, the municipality must document its file with a justification of the need for noncompetitive procurement, and provide such documentation to the Commissioner on request;

(iv) The procurement is for personal or professional services (including architectural or engineering services) or for any service that a university or other educational institution may render;

(v) No responsive, responsible bids at acceptable price levels have been received after formal advertising, and the Commissioner's prior written approval has been obtained;

(vi) The procurement is for materials or services where the price is established by law;

(vii) The procurement is for technical items or equipment requiring standardization and interchangeability of parts with existing equipment; or

(viii) The procurement is for experimental, developmental or research services.

(23) Enforcement. If the Commissioner determines that the municipality has failed to comply with any of these procurement provisions, he or she may impose any of the following sanctions:

(A) The grant may be terminated or annulled under Section 22a-482-4(t).

(B) Project costs directly related to the noncompliance may be disallowed.

(C) Payment otherwise due to the municipality of up to 10 percent may be withheld.

(D) Project work may be suspended under Sec. 22a-482-4(g) (5).

(E) A noncomplying municipality may be found nonresponsible or ineligible for future state funding assistance or a noncomplying contractor may be found nonresponsible or ineligible for approval for future contract award under state grants.

(F) An injunction may be entered or other equitable relief afforded by a court of appropriate jurisdiction.

(G) Such other administrative or judicial action may be instituted if it is legally available and appropriate.

(24) Contract Enforcement. Commissioner authority. At the request of a municipality, the Commissioner is authorized to provide technical and legal assistance in the administration and enforcement of any contract related to pollution abatement facilities for which a State grant was made and to intervene in any civil action involving the enforcement of such contracts, including contract disputes which are the subject of either arbitration or court action in accordance with the requirements of Section 22a-482-4(f)(1).

Sec. 22a-482-4 (j) Construction Contract Procurement Requirements

(This section applies to construction contracts in excess of \$10,000 awarded by municipalities for any construction projects.)

(1) Type of Contract. Each contract shall be a fixed price (lump sum or unit price or a combination of the two) contract, unless the Commissioner gives advance written approval for the municipality to use some other acceptable type of contract. The cost-pluspercentage-of-cost contract shall not be used in any event.

(2) Formal Advertising. Each contract shall be awarded after formal advertising, unless negotiations are permitted in accordance with Sec. 22a-482-4(h)(18). Formal advertising shall be in accordance with the following:

(A) Adequate public notice. The municipality will cause adequate notice to be given of the solicitation by publication in newspapers or journals of general circulation beyond the municipality's locality (statewide, generally), inviting bids on the project work and stating the method by which bidding documents may be obtained or examined. Where the estimated cost of construction is \$10 million or more, the municipality should publish the notice in trade journals of nationwide distribution. The municipality may solicit bids directly from bidders if it maintains a bidders list;

(B) Adequate time for preparing bids. Adequate time, generally not less than 30 days, must be allowed between the date when public notice is first published and the date by which bids must be submitted. Bidding documents (including specifications and drawings) shall be available to prospective bidders from the date when such notice is first published;

(C) Adequate bidding documents. The municipality shall prepare a reasonable number of bidding documents (invitations for bids) and shall furnish them upon request on a first-come, first-served basis. The municipality shall maintain a complete set of bidding documents and shall make them available for inspection and copying by any party. The bidding documents shall include:

(i) A complete statement of the work to be performed, including necessary drawings and specifications, and the required completion schedule;

(ii) The terms and conditions of the contract to be awarded;

(iii) A clear explanation of the method of bidding and the method of evaluation of bid prices, and the basis and method for award of the contract;

(iv) Responsibility requirements or criteria which will be employed in evaluating bidders;

(v) The following statement:

Any contract or contracts awarded under this invitation for bids are expected to be funded in part by the State of Connecticut (Department of Environmental Protection). Neither the State of

Connecticut nor any of its departments, agencies or employees is or will be a party to this invitation for bids or any resulting contract. This procurement will be subject to the requirements contained in Section 22a-482-4, (h), (j) and (o) of the regulations of Connecticut State Agencies;

(vi) A copy of Sec. 22a-482-4, (h), (j) and (o); and

(vii) The prevailing State Wage Determination as applicable.

(D) Sealed bids. The municipality shall provide for bidding by sealed bid and for the safeguarding of bids received until public opening.

(E) Addenda to bidding documents. If a municipality desires to amend any part of the bidding documents (including drawings and specifications) during the period when bids are being prepared, the addenda shall be communicated in writing to all firms which have obtained bidding documents at least five (5) working days prior to the bid opening.

(F) Bid modifications. A firm which has submitted a bid shall be allowed to modify or withdraw its bid before the time of bid opening.

(G) Public opening of bids. The municipality shall provide for a public opening of bids at the place, date and time announced in the bidding documents.

(H) Award to the low, responsive, responsible bidder.

(i) After bids are opened, the municipality shall evaluate them in accordance with the methods and criteria set forth in the bidding documents.

(ii) The municipality may reserve the right to reject all bids. Unless all bids are rejected for good cause, award shall be made to the low, responsive, responsible bidder.

(iii) If the municipality intends to make the award to a firm which did not submit the lowest bid, it shall prepare a written statement before any award, explaining why each lower bidder was deemed nonresponsive or nonresponsible. The Municipality shall retain such statement in its files and forward a copy to the Commissioner for review.

(iv) Local laws, ordinances, regulations or procedures which are designed or which operate to give local bidders preference over other bidders shall not be employed in evaluating bids.

(v) If an unresolved procurement review issue or a protest relates only to award of a subcontract or procurement of an item under the prime contract, and resolution of that issue or protest is unduly delaying performance of the prime contract, the Commissioner may authorize award and performance of the prime contract before resolution of the issue or protest, if the Commissioner determines that resolution of the protest will not affect the placement of the prime contract bidders and will not materially affect initial performance of the prime contract; and that award of the prime contract is in the State's best interest, will not materially affect resolution of the protest, and is not barred by State or local law.

(vi) The municipality shall not reject a bid as nonresponsive for failure to list or otherwise indicate the selection of a subcontractor(s) or equipment, unless the municipality has unambiguously stated in the solicitation documents that such failure to list shall render a bid nonresponsive and shall cause rejection of a bid.

Sec. 22a-482-4 (o) Protests

(1) General. A protest based upon an alleged violation of the procurement requirements may be filed against a municipality's procurement action by a party with an adversely affected direct financial interest. Any such protest must be received by the municipality within the time period in (2)(A) of this section. The municipality is responsible for resolution of the protest before taking the protested action, in accordance with (4) of this section, except as otherwise provided by (9) of this section or 22a-482-4(j)(2)(H)(v).

(2) Time limitations.

(A) A protest under (4) of this section should be made as early as possible during the procurement process to avoid disruption of or unnecessary delay to the procurement process. A protest authorized by (4) of this section must be received by the municipality within one week after the basis for the protest is known or should have been known, whichever is earlier.

(i) In the case of an alleged violation of the specification requirements of Section 22a-482-4(h)(12), relating to specifications (e.g., that a product fails to qualify as an "or equal") a protest need not be filed prior to the opening of bids. The municipality may resolve the issue before receipt of bids or proposals through a written or other formal determination, after notice and opportunity to comment is afforded to any party with a direct financial interest.

(ii) When an alleged violation of the specification requirements of Section 22a-482-4(h)(12) first arises subsequent to the receipt of bids or proposals, the municipality must decide the protest if the protest was received by the municipality within one week of the time that the municipality's written or other formal notice is first received.

(B) A protest appeal authorized by this section must be filed in a court of competent jurisdiction within the locality of the municipality within one week after the complainant has received the municipality's determination.

(C) If a protest is mailed, the complaining party bears the risk of nondelivery within the required time period. All documents transmitted in accordance with this section shall be mailed by certified mail (return receipt requested) or otherwise delivered in a manner which will objectively establish the date of receipt. Initiation of protest actions under (4) or (5) of this section may be made by brief telegraphic notice accompanied by prompt mailing or other delivery of a more detailed statement of the basis for the protest. Telephone protests will not be considered.

(3) Other initial requirements.

(A) The initial protest document must briefly state the basis for the protest and should:

(i) Refer to the specific portions of these regulations which allegedly prohibit the procurement action;

(ii) Specifically request a determination pursuant to this section;

- (iii) Identify the specific procurement document(s) or portion(s) of them in issue; and
- (iv) Include the name, telephone number, and address of the person representing the protesting party.

(B) The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest which may be adversely affected by the determination of the protest (all bidders or proposers who appear to have a substantial and reasonable prospect of receiving an award if the protest is denied or sustained) and to the Commissioner.

(4) Municipality determination.

(A) The municipality is responsible for the initial resolution of protests based upon alleged violations of the procurement requirements.

(B) When the municipality receives a timely written protest, it must defer the protested procurement action in accordance with (7) of this section and:

(i) Afford the complaining party and interested parties an opportunity to present arguments in support of their views in writing or at a conference or other suitable meeting (such as a city council meeting);

(ii) Inform the complainant and other interested parties of the procedures which the municipality will observe for resolution of the protest;

(iii) Obtain an appropriate extension of the period for acceptance of the bid and bid bond(s) of each interested party, where applicable (failure to agree to a suitable extension of such bid and bid bond(s) by the party which initiated the protest shall be cause for summary dismissal of the protest by the municipality or the Commissioner); and

(iv) Promptly deliver (by certified mail, return receipt requested, or by personal delivery) its written determination of the protest to the complaining party and to each other participating party.

(C) The municipality's determination must be accompanied by a legal opinion addressing issues arising under State, or local law, if any and, when construction is involved, by an engineering report, if appropriate.

(D) The municipality should decide the protest as promptly as possible - generally within 3 weeks after receipt of a protest, unless extenuating circumstances require a longer period of time for proper resolution of the protest.

(5) Procedures.

(A) Where resolution of an issue properly raised with respect to a procurement requirement necessitates prior or collateral resolution of a legal issue arising under State or local law, and such law is not clearly established in published legal decisions of the State or other relevant jurisdiction, the municipality may rely upon:

- (i) An opinion of the municipality's legal counsel adequately addressing the issue;
- (ii) The established or consistent practice of the municipality, to the extent appropriate;
- (iii) The law of other local jurisdictions as established in published legal decisions; or
- (iv) If none of the foregoing adequately resolve the issue, published decisions of the Comptroller General of the United States (U.S. General Accounting Office) or of the Federal or State courts addressing Federal or State requirements comparable to procurement requirements of this section.

(B) A party who submits a document subsequent to initiation of a protest proceeding must simultaneously furnish each of the other parties with a copy of such document.

(C) The procedures established herein are not intended to preclude informal resolution or voluntary withdrawal of protests. A complainant may withdraw its appeal at any time, and the protest proceedings shall thereupon be terminated.

(D) A protest may be dismissed for failure to comply with procedural requirements set forth in this section.

(6) Burden of proof.

(A) In protest proceedings, if the municipality proposes to award a formally advertised, competitively bid, fixed price contract to a party who has submitted the apparent lowest price, the party initiating the protest will bear the burden of proof.

(B) In protest proceedings:

(i) If the municipality proposes to award a formally advertised, competitively bid, fixed price contract to a bidder other than the bidder which submitted the apparent lowest price, the municipality will bear the burden of proving that its determination concerning responsiveness is in accordance with these regulations; and

(ii) If the basis for the municipality's determination is a finding of nonresponsibility, the municipality must establish and substantiate the basis for its determination and must adequately establish that such determination has been made in good faith.

(7) Deferral of procurement action. Upon receipt of a protest, the municipality must defer the protested procurement action (for example, defer the issuance of solicitations, contract award, or issuance of notice to proceed under a contract) until ten days after delivery of its determination to the participating parties. The municipality may receive or open bids at its own risk, if it considers this to be in its best interest. When the Commissioner has received a written protest, he or she must notify the municipality promptly to defer its protested procurement action until notified of the formal or informal resolution of the protest.

(8) Enforcement. Noncompliance with the procurement provisions by the municipality shall be cause for enforcement action in accordance with one or more of the provisions of Section 22a-482-4(f)(23).

(9) Limitation. A protest may not be filed with respect to the following:

- (A) Issues not arising under the procurement provisions;
- (B) Issues relating to the selection of a consulting engineer, provided that a protest may be filed only with respect to the mandatory procedural requirements of Section 22a-482-4(i);
- (C) Issues primarily determined by local law or ordinance and as to which the Commissioner, upon review, determines that there is no contravening state requirement and that the municipality's action has a rational basis;
- (D) Provisions of State regulations applicable to direct State contracts unless such provisions are explicitly referred to or incorporated in these regulations;
- (E) Basic project design determinations; or
- (F) Award of subcontracts or issuance of purchase orders under formally advertised, competitively bid, lump sum construction contracts. However, protest may be made to alleged violations of the following:
 - (i) Specification requirements of Section 22a-482-4(h)(12); or
 - (ii) Provisions applicable to the procurement procedures, negotiation or award of subcontracts or issuance of purchase orders under Section 22a-482-4(l).