

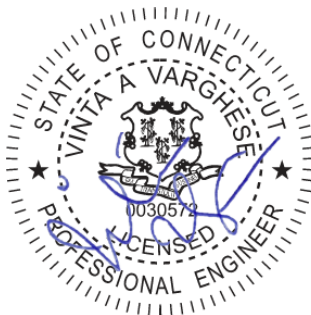
Issued to Bid

**Putnam, CT
Woodstock, CT**

**Lead Service Line
Replacement Program**

**Contract Documents and
Technical Specifications**

Volume 1 of 1



Vinta Varghese
2026.08.11 14:13:18-04'00'

Prepared for:

***Town of Putnam Water
Pollution Control
Authority***

Issue Date:
August 2026

**CDM
Smith**

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DOCUMENT 000107 - SEALS PAGE

1.1 DESIGN PROFESSIONALS OF RECORD

A. Engineer:

1. Vinta Varghese, PE
2. License #0030572
3. Responsible for Divisions 01-15 Sections.

END OF DOCUMENT 00107

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ADVERTISEMENT FOR BIDS
Town of Putnam Water Pollution Control Authority
Putnam, Connecticut
Lead Service Line Replacement Program

General Notice

Town of Putnam Water Pollution Control Authority (Owner) is requesting Bids for the construction of the following Project:

Lead Service Line Replacement Program

DWSRF ID - SFY 22-39

Bids for the construction of the Project will be received at the **Town Manager's office of 200 School St, Putnam, CT 06260, Attn: Elaine Sistare, P.E.** until **Wednesday, September 16, 2026, at 11:00 AM** local time. At that time the Bids received will be publicly opened and read in **Room 201** at this address.

The Project includes the following Work:

The Lead Service Line Replacement Program will target replacements of lead service lines within multiple areas of the Town of Putnam WPCA service territory. For the purposes of this project, galvanized steel is defined as a lead service line and should be removed and treated as if it was a lead pipe. Addresses may be added to and removed from the list by the Engineer or Owner within the defined Work Area throughout the project duration for a total of up to 223 service line replacements. Replacements will typically be on the private side only, typically from the curb stop to the first fitting in the building using copper pipe. Public side replacements will be performed only if lead is identified onsite upstream of the curb stop during a test pit or private side replacement. Certain locations may require special replacement procedures, including the relocation of the service line from the water main to the building.

Obtaining the Bidding Documents

The Issuing Office for the Bidding Documents is:

Town of Putnam Water Pollution Control Authority
200 School St, Putnam, CT 06260

Electronic copies of the Bidding Documents may be obtained by contacting Denise Geeza, Executive Administrative Assistant for the WPCA, 860-963-6800 ext. 100, denise.geeza@putnamct.us

Pre-bid Conference

A non-mandatory pre-bid conference for the Project will be held on **Wednesday, August 19, 2026, at 10:00 AM** at **Putnam Town Hall, 200 School Street, Putnam, CT 06260 - Room 201**. Bids will be accepted from Bidders that do not attend the non-mandatory pre-bid conference.

Instructions to Bidders.

For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

Pre-Qualification Certificate

The Bidder for this project shall hold a current DAS contractor pre-qualification certificate for Sewer and Water Lines from the Department of Administrative Services (DAS) of the State of CT according to CGS Section 4b-91. This requirement is a prerequisite for selecting the Lowest Responsible and Qualified Bidder. Bidders shall submit with their bids copies of DAS contractor prequalification certificates along with the current Update Bid Statements. Contractors submitting a bid for projects with an estimated cost of greater than \$1,000,000 shall hold a current Prequalification Certificate in the designated classification for Sewer and Water Lines from the State of Connecticut Department of Administrative Services (DAS). A copy of the Contractor's DAS Prequalification Certificate and Update (Bid) Statement must be submitted with the bid.

Any subcontractor whose subcontract exceeds \$1,000,000 may perform installation or construction work as a subcontractor on a project, provided that at the time of the bid submission, the subcontractor is prequalified by DAS in accordance with CGS Section 4a-100.

Any contract or contracts awarded under this advertisement 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.

This project is subject to Connecticut prevailing wage rates, the federal Davis-Bacon Act, federal Build America, Buy America (BABA) and American Iron and Steel (AIS) compliance with respect to federal prevailing wages, labor, and AIS requirements, among other requirements. By accepting this contract, the contractor acknowledges and agrees to the terms provided in the [DBRA Requirements for Contractors and Subcontractors Under EPA Grants](#).

Minority/Women's Business Enterprises are encouraged to apply. This contract is subject to state set-aside and contract compliance requirements.

State of Connecticut Contracting Portal

The bid notice for this project will be posted on the State of Connecticut Contracting Portal. This web portal can be found at:

<https://portal.ct.gov/DAS/Procurement/Contracting/DAS-Procurement-State-Contracting-Portal-for-Contracts>

The project will also be posted in the local newspaper and the Hartford Courant.

The following waivers apply to this Contract:

DeMinimis,

Minor Components, and

Pig iron and direct reduced iron

This Advertisement is issued by:

Owner: Town of Putnam Water Pollution Control Authority

By: Elaine Sistare, P.E.

Title: Town Administrator

Date: August 12, 2026

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

INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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National Society of Professional Engineers
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

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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 which registers plan holders.

ARTICLE 2—BIDDING DOCUMENTS

- 2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.
- 2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.
- 2.03 Bidder may register as a plan holder and obtain complete sets of Bidding Documents, in the number and format stated in the Advertisement or invitation to bid, from the Issuing Office. Bidders may rely that sets of Bidding Documents obtained from the Issuing Office are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.04 *Electronic Documents*
- A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.
1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf) that is readable by Adobe Acrobat Reader Version. It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.
- B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.04.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information

that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

ARTICLE 3—QUALIFICATIONS OF BIDDERS

- 3.01 Bidder is to submit the following information with its Bid to demonstrate Bidder's qualifications to perform the Work:
- A. Written evidence establishing its qualifications such as financial data, previous experience, and present commitments.
 - B. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.
 - C. Bidder's state or other contractor license number, if applicable.
 - D. Subcontractor and Supplier qualification information.
 - E. Other required information regarding qualifications.
- 3.02 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.
- 3.03 All Contracts that exceed \$100,000 for construction, renovations or repairs must follow Section 31-53b of the Connecticut General Statutes, as amended, "Construction Safety Training".

ARTICLE 4—PRE-BID CONFERENCE

- 4.01 A non-mandatory pre-bid conference will be held at the time and location indicated in the Advertisement or invitation to bid. Representatives of Owner and Engineer will be present to discuss the Project. Proposals will be accepted from Bidders who do not attend the conference.
- 4.02 Information presented at the pre-Bid conference does not alter the Contract Documents. Owner will issue Addenda to make any changes to the Contract Documents that result from discussions at the pre-Bid conference. Information presented, and statements made at the pre-bid conference will not be binding or legally effective unless incorporated in an Addendum.

ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

- 5.01 *Site and Other Areas*
- A. The Sites are identified in the Bidding Documents. By definition, the Sites include rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.
- 5.02 *Existing Site Conditions*
- A. *Subsurface and Physical Conditions; Hazardous Environmental Conditions*
 - 1. Technical data is not available for the Sites.

2. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

5.03 *Site Visit and Testing by Bidders*

- A. A Site visits can be conducted following the pre-bid conference. Maps to the Sites will be available as part of the bidding documents. These properties are privately owned and occupied and should therefore only be viewed between the hours of 9:00 am and 4:00 pm and residents should not be disturbed during any observations.
- B. All access to the Sites other than during a regularly scheduled Site visit must be coordinated through the following Owner or Engineer contact for visiting the Site.
- C. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.

5.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. If an Owner safety program exists, it will be noted in the Supplementary Conditions.

5.05 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Express Representations and Certifications in Bid Form, Agreement*

- A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.
- B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

ARTICLE 7—INTERPRETATIONS AND ADDENDA

- 7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.
- 7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer in writing. Contact information and submittal procedures for such questions are as follows:
 - A. **Vinta Varghese, Project Engineer, CDM Smith, 101 East River Drive Suite 1A, East Hartford, Connecticut 06108, vargheseva@cdmsmith.com, 860-808-2325**

- 7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda in writing delivered to all registered plan holders. Questions will be received through September 4, 2026.
- 7.04 Final Addendum will be issued by September 10, 2026. Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

ARTICLE 8—BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of **Five (5)** percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents. Bid security must be at least 5% of the Bidder's maximum Bid price.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract 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, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

ARTICLE 9—CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.

ARTICLE 10—SUBSTITUTE AND "OR EQUAL" ITEMS

- 10.01 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.

ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 11.01 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 and Suppliers. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor or Supplier, 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 subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.
- 11.02 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.
- 11.03 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 and Suppliers. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor or Supplier, 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 subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.
- 11.04 The Contractor shall not award work to Subcontractor(s) in excess of the limits stated in SC 7.07A.

ARTICLE 12—PREPARATION OF BID

- 12.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
- B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words “No Bid” or “Not Applicable.”
- 12.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the

Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.

- 12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.
- 12.04 A Bid by a partnership must 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 must be shown.
- 12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.
- 12.06 A Bid by an individual must show the Bidder's name and official address.
- 12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.
- 12.08 All names must be printed in ink below the signatures.
- 12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.
- 12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.
- 12.11 The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.
- 12.12 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

ARTICLE 13—BASIS OF BID

13.01 *Unit Price*

- A. Bidders must submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity", which Owner or its representative has set forth in the Bid Form, for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total

will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 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.

13.02 Allowances

- A. For cash allowances the Bid price must 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 13.02.B of the General Conditions.

ARTICLE 14—SUBMITTAL OF BID

- 14.01 A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or invitation to bid and must be sealed in a plainly marked package with the Project title, and, if applicable, the designated portion of the Project for which the Bid is submitted, the name and address of Bidder, and must 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 must be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid must be addressed to the location designated in the Advertisement.
- 14.02 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID

- 15.01 An unopened Bid may be 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. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 15.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid,

and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

ARTICLE 16—OPENING OF BIDS

- 16.01 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.
- 16.02 Bid opening will be made at least 30 days from the publication of formal advertisement.

ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 17.01 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 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

- 18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.
- 18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.
- 18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.
- 18.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Bid.
- 18.05 *Evaluation of Bids*
 - A. In evaluating Bids, Owner will consider whether 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.
 - B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form. To determine the Bid prices for purposes of comparison, Owner will announce to all bidders a “Base Bid plus alternates” budget after receiving all Bids, but prior to opening them. For comparison purposes alternates will be accepted, following the order of priority established in the Bid Form, until doing so would cause the budget to be exceeded. After determination of the Successful Bidder based on this comparative process and on the responsiveness, responsibility, and other factors set forth in these Instructions, the award may be made to said Successful Bidder on its base Bid and any combination of its additive alternate Bids for which Owner determines funds will be available at the time of award.
 - C. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.

- 18.06 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 18.07 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 19—BONDS AND INSURANCE

- 19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.
- 19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.

ARTICLE 20—SIGNING OF AGREEMENT

- 20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 21—SALES AND USE TAXES

- 21.01 Owner is exempt from **Connecticut** state sales and use taxes on materials and equipment to be incorporated in the Work. (Exemption No. **06-6002071**). Said taxes must not be included in the Bid. Refer to Paragraph SC-7.10 of the Supplementary Conditions for additional information.

ARTICLE 22—NOT USED.

ARTICLE 23—FEDERAL REQUIREMENTS

- 23.01 If the contract price is in excess of \$100,000, provisions of the Contract Work Hours and Safety Standards Act at 29 CFR 5.5(b) apply.
- 23.02 Federal requirements at Article 19 of the Supplementary Conditions apply to this Contract.
- 23.03 American Iron and Steel requirements apply to this project.
- 23.04 This contract is subject to Federal Davis-Bacon prevailing wage laws including all reporting requirements pursuant to RCSA 22a-482-4(j)2(C)vii and CGS 31-53.
- 23.05 Build America, Buy America (BABA) applies to this project
- 23.06 Compliance with the Title VI of the Civil Rights Act of 1964

- 23.07 Compliance with Executive Order 12549
- 23.08 The contract is subject to the OSHA Safety and Health Regulations of the U.S. Department of Labor set forth in Title 29 CFR, Part 1926 and to all subsequent amendments. Contractors shall be familiar with the requirements of these regulations.

**Town of Putnam Water Pollution Control Authority
Lead Service Line Replacement Program
PROJECT NO. 312490**

BID FORM

ITEM NO.	ESTIMATED QUANTITY	BRIEF DESCRIPTION OF ITEMS WITH UNIT BID PRICE IN WORDS	UNIT BID PRICE IN FIGURES	AMOUNT IN FIGURES
1A.1	5 each	Lead Service Line Replacement - Public Side Only (Corporation Stop to Curb Stop)	\$	\$
		each		
1A.2	5 each	Lead Service Line Replacement - Public Side Portion of a Full Replacement (Corporation Stop to Curb Stop)	\$	\$
		each		
1B	34 each	Test Pit at Curb Stop	\$	\$
		each		
1C	60 CY	Lead Service Line Excavation Depth Greater Than Five (5) Feet	\$	\$
		per cubic yard		
1D	40 CY	Final Trench Pavement Restoration (Milling and Paving)	\$	\$
		per cubic yard		
1E	55 CY	Final Concrete Sidewalk Restoration	\$	\$
		per cubic yard		
1F	\$ 97,500.00 ALLOWANCE	Uniformed Police Traffic Control		
		Ninety-seven thousand five hundred dollars and zero cents allowance	\$ 97,500.00	\$ 97,500.00
1G	\$ 97,500.00 ALLOWANCE	Flaggers for Traffic Control		
		Ninety-seven thousand five hundred dollars and zero cents allowance	\$ 97,500.00	\$ 97,500.00
1H	\$ 20,000.00 ALLOWANCE	Utility Provisions		
		Twenty thousand dollars and zero cents allowance	\$ 20,000.00	\$ 20,000.00

**Town of Putnam Water Pollution Control Authority
Lead Service Line Replacement Program
PROJECT NO. 312490**

BID FORM

ITEM NO.	ESTIMATED QUANTITY	BRIEF DESCRIPTION OF ITEMS WITH UNIT BID PRICE IN WORDS	UNIT BID PRICE IN FIGURES	AMOUNT IN FIGURES
2A.1	197 each	Lead Service Line Replacement - Private Side Only (Curb Stop to Water Meter)	\$	\$
		each		
2A.2	5 each	Lead Service Line Replacement - Private Side Portion of a Full Replacement (Curb Stop to Water Meter)	\$	\$
		each		
2B	23 each	Access Not Provided	\$	\$
		each		
2C.1	138 each	New Curb Box	\$	\$
		each		
2C.2	10 each	New Curb Stop Valve	\$	\$
		each		
3	400 each	Pitcher Filters and Replacement Cartridges	\$	\$
		each		
4	\$ - ALLOWANCE	New Full Service Line for Combined Service Line Locations		
		Four hundred thirty-five thousand dollars and zero cents allowance	\$ 435,000.00	\$ 435,000.00
TOTAL BASE BID PRICE IN WORDS (Items 1A.1-4)				
TOTAL BASE BID PRICE IN FIGURES (Items 1A.1-4)				

**Town of Putnam Water Pollution Control Authority
Lead Service Line Replacement Program
PROJECT NO. 312490**

BID FORM

<u>ITEM NO.</u>	<u>ESTIMATED QUANTITY</u>	<u>BRIEF DESCRIPTION OF ITEMS WITH UNIT BID PRICE IN WORDS</u>	<u>UNIT BID PRICE IN FIGURES</u>	<u>AMOUNT IN FIGURES</u>
S-1A	100 CY	Imported Common Fill		
		_____	\$ _____	\$ _____
		per cubic yard		
S-1B	150 CY	Crushed Stone		
		_____	\$ _____	\$ _____
		per cubic yard		
S-1C	10 CY	Flowable Fill		
		_____	\$ _____	\$ _____
		per cubic yard		
S-2	30 CY	Miscellaneous Concrete		
		_____	\$ _____	\$ _____
		per cubic yard		
S-3	\$ 50,000.00 ALLOWANCE	Miscellaneous Work at Direction of the Owner		
		Fifty Thousand Dollars and Zero Cents allowance	\$ 50,000.00	\$ 50,000.00
TOTAL SUPPLEMENTAL PRICE IN WORDS (S-1A through S-3)			_____	_____
TOTAL SUPPLEMENTAL PRICE IN FIGURES (S-1A through S-3)			_____	_____

**Town of Putnam Water Pollution Control Authority
Lead Service Line Replacement Program
PROJECT NO. 312490**

BID FORM

ITEM <u>NO.</u>	ESTIMATED <u>QUANTITY</u>	BRIEF DESCRIPTION OF ITEMS <u>WITH UNIT BID PRICE IN WORDS</u>	UNIT BID PRICE <u>IN FIGURES</u>	AMOUNT IN <u>FIGURES</u>
TOTAL BASE BID PRICE PLUS SUPPLEMENTAL PRICE IN WORDS			<hr/>	
TOTAL BASE BID PRICE PLUS SUPPLEMENTAL PRICE IN FIGURES			<hr/>	

BID FORM FOR CONSTRUCTION CONTRACT

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 1—OWNER AND BIDDER

- 1.01 This Bid is submitted to: **Town of Putnam Water Pollution Control Authority, 200 School St, Putnam CT 06260**
- 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—ATTACHMENTS TO THIS BID

- 2.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. List of Proposed Suppliers;
 - D. Evidence of authority to do business in Connecticut; or a written covenant to obtain such authority within the time for acceptance of Bids;
 - E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;
 - F. Required Bidder Qualification Statement with supporting data; and

ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

3.01 *Unit Price Bids*

- A. Bidder will perform the following Work at the indicated unit prices:

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Amount
1A.1	Lead Service Line Replacement – Public Side Only (Corporation Stop to Curb Stop)	EA	5		\$
1A.2	Lead Service Line Replacement – Public Side Portion of a Full Replacement (Corporation Stop to Curb Stop)	EA	5		\$
1B	Test Pit at Curb Stop	EA	34		\$

EJCDC® C-410, Bid Form for Construction Contract.

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1C	Lead Service Line Excavation Depth Greater than Five (5) Feet	CY	60		\$
1D	Final Trench Pavement Restoration (Milling and Paving)	CY	40		\$
1E	Final Concrete Sidewalk Restoration	CY	55		
1F	Uniformed Police Traffic Control	Allowance	-	\$97,500.00	
1G	Flaggers for Traffic Control	Allowance	-	\$97,500.00	
1H	Utility Provisions	Allowance	-	\$20,000.00	
2A.1	Lead Service Line Replacement – Private Side Only (Curb Stop to Meter)	EA	197		
2A.2	Lead Service Line Replacement – Private Side Portion of a Full Replacement (Curb Stop to Meter)	EA	5		
2B	Access Not Provided	EA	23		
2C.1	New Curb Box	EA	138		
2C.2	New Curb Stop Valve	EA	10		
3	Pitcher Filters and Replacement Cartridges	EA	400		
4	New Full Service Line for Combined Service Line Locations	Allowance	-	\$435,000.00	
S-1A	Imported Common Fill	CY	100		
S-1B	Crushed Stone	CY	150		
S-1C	Flowable Fill	CY	10		
S-2	Miscellaneous Concrete	CY	30		
S-3	Miscellaneous Work at Direction of Owner	Allowance	-	\$50,000.00	
Total of All Unit Price Bid Items	\$				

B. Bidder acknowledges that:

1. Each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
2. Estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 4—DELETED.

ARTICLE 5—TIME OF COMPLETION

5.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

5.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 6—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

6.01 *Bid Acceptance Period*

- A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

6.02 *Instructions to Bidders*

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

6.03 *Receipt of Addenda*

- A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 7—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

7.01 *Bidder's Representations*

- A. In submitting this Bid, Bidder represents the following:
1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
 2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. 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.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

7.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. 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.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.

4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. 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.
 - b. 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.
 - c. 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.
 - d. 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.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

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

Attest:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

Address for giving notices:

Bidder's Contact:

Name:

(typed or printed)

Title:

(typed or printed)

Phone:

Email:

Address:

Bidder's Contractor License No.: (if applicable)

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

BID BOND (PENAL SUM FORM)

Prepared By



Endorsed By



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www.nspe.org

American Council of Engineering Companies
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www.acec.org

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BID BOND (PENAL SUM FORM)

Bidder Name: Address <i>(principal place of business)</i> :	Surety Name: Address <i>(principal place of business)</i> :
Owner Name: Town of Putnam WPCA Address <i>(principal place of business)</i> : 200 School Street Putnam, Connecticut 06260	Bid Project <i>(name and location)</i> : Lead Service Line Replacement Program Putnam, CT 06260 and Woodstock, CT 06260 Bid Due Date:
Bond Penal Sum: Date of Bond:	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder	Surety
<i>(Full formal name of Bidder)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <div style="text-align: center;"><i>(Signature)</i></div>	By: _____ <div style="text-align: center;"><i>(Signature) (Attach Power of Attorney)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>	Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
<i>Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.</i>	

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation will be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

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

QUALIFICATIONS STATEMENT

Prepared By



Endorsed By



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ARTICLE 1—GENERAL INFORMATION

1.01 Provide contact information for the Business:

Legal Name of Business:			
Corporate Office			
Name:		Phone number:	
Title:		Email address:	
Business address of corporate office:			
Local Office			
Name:		Phone number:	
Title:		Email address:	
Business address of local office:			

1.02 Provide information on the Business's organizational structure:

Form of Business:	☐ Sole Proprietorship ☐ Partnership ☐ Corporation		
☐ Limited Liability Company ☐ Joint Venture comprised of the following companies:			
1.			
2.			
3.			
Provide a separate Qualification Statement for each Joint Venturer.			
Date Business was formed:		State in which Business was formed:	
Is this Business authorized to operate in the Project location?		☐ Yes ☐ No ☐ Pending	

1.03 Identify all businesses that own Business in whole or in part (25% or greater), or that are wholly or partly (25% or greater) owned by Business:

Name of business:		Affiliation:	
Address:			
Name of business:		Affiliation:	
Address:			
Name of business:		Affiliation:	
Address:			

- 1.04 Provide information regarding the Business's officers, partners, and limits of authority.

Name:		Title:	
Authorized to sign contracts: ☐ Yes ☐ No		Limit of Authority:	\$
Name:		Title:	
Authorized to sign contracts: ☐ Yes ☐ No		Limit of Authority:	\$
Name:		Title:	
Authorized to sign contracts: ☐ Yes ☐ No		Limit of Authority:	\$
Name:		Title:	

ARTICLE 2—LICENSING

- 2.01 Provide information regarding licensure for Business:

Name of License:			
Licensing Agency:			
License No:		Expiration Date:	
Name of License:			
Licensing Agency:			
License No:		Expiration Date:	

ARTICLE 3—DIVERSE BUSINESS CERTIFICATIONS

- 3.01 Provide information regarding Business's Diverse Business Certification, if any. Provide evidence of current certification.

Certification	Certifying Agency	Certification Date
☐ Disadvantaged Business Enterprise		
☐ Minority Business Enterprise		
☐ Woman-Owned Business Enterprise		
☐ Small Business Enterprise		
☐ Disabled Business Enterprise		
☐ Veteran-Owned Business Enterprise		
☐ Service-Disabled Veteran-Owned Business		
☐ HUBZone Business (Historically Underutilized) Business		
☐ Other		
☐ None		

ARTICLE 4—SAFETY

- 4.01 Provide information regarding Business's safety organization and safety performance.

Name of Business's Safety Officer:		
Safety Certifications		
Certification Name	Issuing Agency	Expiration

- 4.02 Provide Worker's Compensation Insurance Experience Modification Rate (EMR), Total Recordable Frequency Rate (TRFR) for incidents, and Total Number of Recorded Manhours (MH) for the last 3 years and the EMR, TRFR, and MH history for the last 3 years of any proposed Subcontractor(s) that will provide Work valued at 10% or more of the Contract Price. Provide documentation of the EMR history for Business and Subcontractor(s).

Year									
Company	EMR	TRFR	MH	EMR	TRFR	MH	EMR	TRFR	MH

ARTICLE 5—FINANCIAL

- 5.01 Provide information regarding the Business's financial stability. Provide the most recent audited financial statement, and if such audited financial statement is not current, also provide the most current financial statement.

Financial Institution:		
Business address:		
Date of Business's most recent financial statement:		☐ Attached
Date of Business's most recent audited financial statement:		☐ Attached
Financial indicators from the most recent financial statement		
Contractor's Current Ratio (Current Assets ÷ Current Liabilities)		
Contractor's Quick Ratio ((Cash and Cash Equivalents + Accounts Receivable + Short Term Investments) ÷ Current Liabilities)		

ARTICLE 6—SURETY INFORMATION

- 6.01 Provide information regarding the surety company that will issue required bonds on behalf of the Business, including but not limited to performance and payment bonds.

Surety Name:			
Surety is a corporation organized and existing under the laws of the state of:			
Is surety authorized to provide surety bonds in the Project location?	☐ Yes ☐ No		
Is surety listed in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" published in Department Circular 570 (as amended) by the Bureau of the Fiscal Service, U.S. Department of the Treasury? ☐ Yes ☐ No			
Mailing Address (principal place of business):			
Physical Address (principal place of business):			
Phone (main):		Phone (claims):	

ARTICLE 7—INSURANCE

- 7.01 Provide information regarding Business's insurance company(s), including but not limited to its Commercial General Liability carrier. Provide information for each provider.

Name of insurance provider, and type of policy (CLE, auto, etc.):			
Insurance Provider		Type of Policy (Coverage Provided)	
Are providers licensed or authorized to issue policies in the Project location?		☐ Yes ☐ No	
Does provider have an A.M. Best Rating of A-VII or better?		☐ Yes ☐ No	
Mailing Address (principal place of business):			
Physical Address (principal place of business):			
Phone (main):		Phone (claims):	

ARTICLE 8—CONSTRUCTION EXPERIENCE

8.01 Provide information that will identify the overall size and capacity of the Business.

Average number of current full-time employees:	
Estimate of revenue for the current year:	
Estimate of revenue for the previous year:	

8.02 Provide information regarding the Business's previous contracting experience.

Years of experience with projects like the proposed project:				
As a general contractor:		As a joint venturer:		
Has Business, or a predecessor in interest, or an affiliate identified in Paragraph 1.03:				
Been disqualified as a bidder by any local, state, or federal agency within the last 5 years? ☐ Yes ☐ No				
Been barred from contracting by any local, state, or federal agency within the last 5 years? ☐ Yes ☐ No				
Been released from a bid in the past 5 years? ☐ Yes ☐ No				
Defaulted on a project or failed to complete any contract awarded to it? ☐ Yes ☐ No				
Refused to construct or refused to provide materials defined in the contract documents or in a change order? ☐ Yes ☐ No				
Been a party to any currently pending litigation or arbitration? ☐ Yes ☐ No				
Provide full details in a separate attachment if the response to any of these questions is Yes.				

8.03 List all projects currently under contract in Schedule A and provide indicated information.

8.04 List a minimum of three and a maximum of six projects completed in the last 5 years in Schedule B and provide indicated information to demonstrate the Business's experience with projects similar in type and cost of construction.

8.05 In Schedule C, provide information on key individuals whom Business intends to assign to the Project. Provide resumes for those individuals included in Schedule C. Key individuals include the Project Manager, Project Superintendent, Quality Manager, and Safety Manager. Resumes may be provided for Business's key leaders as well.

ARTICLE 9—REQUIRED ATTACHMENTS

9.01 Provide the following information with the Statement of Qualifications:

- A. If Business is a Joint Venture, separate Qualifications Statements for each Joint Venturer, as required in Paragraph 1.02.
- B. Diverse Business Certifications if required by Paragraph 3.01.
- C. Certification of Business's safety performance if required by Paragraph 4.02.
- D. Financial statements as required by Paragraph 5.01.

- E. Attachments providing additional information as required by Paragraph 8.02.
- F. Schedule A (Current Projects) as required by Paragraph 8.03.
- G. Schedule B (Previous Experience with Similar Projects) as required by Paragraph 8.04.
- H. Schedule C (Key Individuals) and resumes for the key individuals listed, as required by Paragraph 8.05.
- I. Additional items as pertinent.

This Statement of Qualifications is offered by:

Business:

(typed or printed name of organization)

By:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(date signed)

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

Attest:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Address for giving notices:

Designated Representative:

Name:

(typed or printed)

Title:

(typed or printed)

Address:

Phone:

Email:

Schedule A—Current Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Schedule B—Previous Experience with Similar Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Schedule B—Previous Experience with Similar Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Schedule C—Key Individuals

Project Manager			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	
Project Superintendent			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	

Safety Manager			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	
Quality Control Manager			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	

CERTIFICATION FOR CONTRACTS, GRANTS AND LOANS

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant or Federal loan, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant or loan.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant or loan, the undersigned shall complete and submit Standard Form - LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including contracts, subcontracts, and subgrants under grants and loans) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

(name) (date)

(title)

oOo

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

NOTICE OF AWARD

Prepared By



Endorsed By



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National Society of Professional Engineers
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
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NOTICE OF AWARD

Date of Issuance:

Owner: Town of Putnam WPCA

Owner's Project No.:

Engineer: CDM Smith

Engineer's Project No.:

Project: Lead Service Line Replacement Program

Contract Name:

Bidder:

Bidder's Address:

You are notified that Owner has accepted your Bid dated **[date]** for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

[Describe Work, alternates, or sections of Work awarded]

The Contract Price of the awarded Contract is \$**[Contract Price]**. Contract Price is subject to adjustment based on the provisions of the Contract, including but not limited to those governing changes, Unit Price Work, and Work performed on a cost-plus-fee basis, as applicable.

[Number of copies sent] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

☐ Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner **[number of copies sent]** counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any): **[Describe other conditions that require Successful Bidder's compliance]**

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: **Town of Putnam Water Pollution Control Authority (WPCA)**

By (signature): _____

Name (printed): _____

Title: _____

Copy: Engineer

This page intentionally left blank.

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

This Agreement is by and between **Town of Putnam Water Pollution Control Authority** (“Owner”) and **[name of contracting entity]** (“Contractor”).

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

Owner and Contractor hereby agree as follows:

ARTICLE 1—WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: **Lead Service Line Replacement Program**

ARTICLE 2—THE PROJECT

- 2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

The Lead Service Line Replacement Program will target replacements of lead service lines within multiple areas of the Town of Putnam WPCA service territory. For the purposes of this project, galvanized steel is defined as a lead service line and should be removed and treated as if it was a lead pipe. Addresses may be added to and removed from the list by the Engineer or Owner within the defined Work Area throughout the project duration for a total of up to 223 service line replacements. Replacements will typically be on the private side only, typically from the curb stop to the first fitting in the building using copper pipe. Public side replacements will be performed only if lead is identified onsite upstream of the curb stop during a test pit or private side replacement. Certain locations may require special replacement procedures, including the relocation of the service line from the water main to the building.

ARTICLE 3—ENGINEER

- 3.01 The Owner has retained **CDM Smith Inc.** (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.
- 3.02 The part of the Project that pertains to the Work has been designed by **CDM Smith Inc.**

ARTICLE 4—CONTRACT TIMES

- 4.01 *Time is of the Essence*

A. 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.

- 4.02 *Contract Times: Days*

A. The Work will be substantially complete within **300** days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and

completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **365** days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. 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):
1. *Substantial Completion:* Contractor shall pay Owner **\$1,000** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.
 2. *Completion of Remaining Work:* After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **\$1,000** for each day that expires after such time until the Work is completed and ready for final payment.
 3. *Milestones:* Contractor shall pay Owner **\$1,000** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of a Milestone, until the Milestone is achieved, or until the time specified for Substantial Completion is reached, at which time the rate indicated in Paragraph 4.03.A.1 will apply, rather than the Milestone rate.
 4. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.
- B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

4.06 *Special Damages*

- A. Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

- C. The special damages imposed in this paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.

ARTICLE 5—CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:

- A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6—PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on the basis of Contractor's Applications for Payment on or about the **15th** day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in 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 elsewhere in the Contract.

- 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 Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

- a. **95** percent of the value of the Work completed (with the balance being retainage).

- 1) If 50 percent or more of the Work has been completed, as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

- b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **100** percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Change Orders*

- A. Change orders shall incur no more than a 15% markup on labor and material costs, and 5% costs incurred by the subcontractor.

6.04 *Final Payment*

- A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

6.05 *Consent of Surety*

- A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.06 *Interest*

- A. All amounts not paid when due will bear interest at the rate of **0** percent per annum.

ARTICLE 7—CONTRACT DOCUMENTS

7.01 *Contents*

- A. The Contract Documents consist of all of the following:
 - 1. This Agreement.
 - 2. Bonds:
 - a. Performance bond (together with power of attorney).
 - b. Payment bond (together with power of attorney).
 - 3. General Conditions.
 - 4. Supplementary Conditions.
 - 5. Specifications as listed in the table of contents of the project manual (copy of list attached).
 - 6. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
 - e. Warranty Bond, if any.
- B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 *Contractor's Representations*

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
1. Contractor has examined and carefully studied the Contract Documents, including Addenda.
 2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
 5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
 6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.
 7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
 8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
 9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
 10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:
 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract 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.

8.03 *Standard General Conditions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

ARTICLE 9—MISCELLANEOUS

9.01 *American Iron and Steel Requirement*

- A. This project is subject to the American Iron and Steel Requirements of P.L. 113-76, the Consolidated Appropriations Act of 2014.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (**which is the Effective Date of the Contract**).

Owner: Town of Putnam

Contractor:

Water Pollution Control Authority

(typed or printed name of organization)

(typed or printed name of organization)

By:

(individual's signature)

By:

(individual's signature)

Date:

(date signed)

Date:

(date signed)

Name:

(typed or printed)

Name:

(typed or printed)

Title:

(typed or printed)

Title:

(typed or printed)

(If [**Type of Entity**] is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

(individual's signature)

Attest:

(individual's signature)

Title:

(typed or printed)

Title:

(typed or printed)

Address for giving notices:

Address for giving notices:

Town of Putnam WPCA

200 School Street

Putnam, CT 06260

Designated Representative:

Designated Representative:

Name:

(typed or printed)

Name:

(typed or printed)

Title:

(typed or printed)

Title:

(typed or printed)

Address:

Address:

Phone:

Phone:

Email:

Email:

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

License No.:

(where applicable)

State:

This page intentionally left blank.

CERTIFICATE OF OWNER'S ATTORNEY AND AGENCY CONCURRENCE

Notes to User: This exhibit consists of two certificates, on a single page, to be attached to the Contract and signed upon execution. The first is a certificate to be signed by the Owner's attorney and the second is the concurrence to be signed by the State Engineer. This page is to be inserted after the Agreement between Owner and Contractor for Construction Contract (Stipulated Price) (EJCDC C-520, 2018) in the Construction Contract Documents.

CERTIFICATE OF OWNER'S ATTORNEY

PROJECT NAME:

CONTRACTOR NAME AND CONTRACT NUMBER:

I, the undersigned, _____, the duly authorized and acting legal representative of _____, do hereby certify as follows: I have examined the attached Contract(s) and performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements is adequate and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said 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 the terms, conditions, and provisions thereof.

Name

Date

AGENCY CONCURRENCE

As lender or insurer of funds to defray the costs of this Contract, and without liability for any payments thereunder, the Agency hereby concurs in the form, content, and execution of this Agreement.

Agency Representative

Date

Name

This page intentionally left blank.

NOTICE TO PROCEED

Owner: Town of Putnam WPCA Owner's Project No.: _____
Engineer: CDM Smith Engineer's Project No.: _____
Contractor: _____ Contractor's Project No.: _____
Project: Lead Service Line Replacement Program
Contract Name: _____
Effective Date of Contract: _____

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on **[date Contract Times are to start]** pursuant to Paragraph 4.01 of the General Conditions.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement: **[Select one of the following two alternatives, insert dates or number of days, and delete the other alternative.]**

The date by which Substantial Completion must be achieved is **[date for Substantial Completion, from Agreement]**, and the date by which readiness for final payment must be achieved is **[date for readiness, from Agreement]**.

[or]

The number of days to achieve Substantial Completion is **[number of days, from Agreement]** from the date stated above for the commencement of the Contract Times, resulting in a date for Substantial Completion of **[date, calculated from commencement date above]**; and the number of days to achieve readiness for final payment is **[number of days, from Agreement]** from the commencement date of the Contract Times, resulting in a date for readiness for final payment of **[date, calculated from commencement date above]**.

Before starting any Work at the Site, Contractor must comply with the following:

[Note any access limitations, security procedures, or other restrictions]

Owner: Town of Putnam Water Pollution Control Authority (WPCA)
By (signature): _____
Name (printed): _____
Title: _____
Date Issued: _____
Copy: Engineer

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PERFORMANCE BOND

Contractor Name: Address <i>(principal place of business)</i> :	Surety Name: Address <i>(principal place of business)</i> :
Owner Name: Town of Putnam WPCA Mailing address <i>(principal place of business)</i> : 200 School Street Putnam, Connecticut 06260	Contract Description <i>(name and location)</i> : Lead Service Line Replacement Program Putnam, CT and Woodstock, CT Contract Price: Effective Date of Contract:
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: ☐ None ☐ See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____	By: _____
<i>(Signature)</i>	<i>(Signature)(Attach Power of Attorney)</i>
Name: _____	Name: _____
<i>(Printed or typed)</i>	<i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____	Attest: _____
<i>(Signature)</i>	<i>(Signature)</i>
Name: _____	Name: _____
<i>(Printed or typed)</i>	<i>(Printed or typed)</i>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
 - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
 - 3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
 - 5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
 - 5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
 - 5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

- 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
 - 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
- 6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
- 7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
 - 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
 - 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
 - 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- 8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
- 9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
- 10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
- 11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
- 12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
- 13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such

statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

- 14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
 - 14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
 - 14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
 - 14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. Modifications to this Bond are as follows: None

PAYMENT BOND

Contractor Name: Address <i>(principal place of business)</i> :	Surety Name: Address <i>(principal place of business)</i> :
Owner Name: Town of Putnam WPCA Mailing address <i>(principal place of business)</i> : 200 School St Putnam, Connecticut 06260	Contract Description <i>(name and location)</i> : Lead Service Line Replacement Program Putnam, CT and Woodstock, CT Contract Price: Effective Date of Contract:
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: ☐ None ☐ See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <div style="text-align: center;"><i>(Signature)</i></div>	By: _____ <div style="text-align: center;"><i>(Signature)(Attach Power of Attorney)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>	Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
 - 5.1. Claimants who do not have a direct contract with the Contractor
 - 5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2. Pay or arrange for payment of any undisputed amounts.
 - 7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. Definitions
 - 16.1. *Claim*—A written statement by the Claimant including at a minimum:
 - 16.1.1. The name of the Claimant;
 - 16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;
 - 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 - 16.1.4. A brief description of the labor, materials, or equipment furnished;

- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 - 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 - 16.1.7. The total amount of previous payments received by the Claimant; and
 - 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
18. Modifications to this Bond are as follows: None

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

APPLICATION FOR PAYMENT

Prepared By



Endorsed By



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(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
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www.acec.org

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www.asce.org

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Contractor's Application for Payment

Owner: <u>Town of Putnam WPCA</u> Engineer: <u>CDM Smith</u> Contractor: _____ Project: <u>Lead Service Line Replacement Program</u> Contract: _____	Owner's Project No.: _____ Engineer's Project No.: _____ Contractor's Project No.: _____																																				
Application No.: _____ Application Date: _____																																					
Application Period: From _____ to _____																																					
<table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 70%;">1. Original Contract Price</td><td style="width: 10%; text-align: right;">\$</td><td style="width: 20%; text-align: right;">-</td></tr><tr><td>2. Net change by Change Orders</td><td style="text-align: right;">\$</td><td style="text-align: right;">-</td></tr><tr><td>3. Current Contract Price (Line 1 + Line 2)</td><td style="text-align: right;">\$</td><td style="text-align: right;">-</td></tr><tr><td>4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)</td><td style="text-align: right;">\$</td><td style="text-align: right;">-</td></tr><tr><td>5. Retainage</td><td></td><td></td></tr><tr><td> a. _____ X \$ - Work Completed =</td><td style="text-align: right;">\$</td><td style="text-align: right;">-</td></tr><tr><td> b. _____ X \$ - Stored Materials =</td><td style="text-align: right;">\$</td><td style="text-align: right;">-</td></tr><tr><td> c. Total Retainage (Line 5.a + Line 5.b)</td><td style="text-align: right;">\$</td><td style="text-align: right;">-</td></tr><tr><td>6. Amount eligible to date (Line 4 - Line 5.c)</td><td style="text-align: right;">\$</td><td style="text-align: right;">-</td></tr><tr><td>7. Less previous payments (Line 6 from prior application)</td><td></td><td></td></tr><tr><td>8. Amount due this application</td><td style="text-align: right;">\$</td><td style="text-align: right;">-</td></tr><tr><td>9. Balance to finish, including retainage (Line 3 - Line 4 + Line 5.c)</td><td style="text-align: right;">\$</td><td style="text-align: right;">-</td></tr></table>		1. Original Contract Price	\$	-	2. Net change by Change Orders	\$	-	3. Current Contract Price (Line 1 + Line 2)	\$	-	4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)	\$	-	5. Retainage			a. _____ X \$ - Work Completed =	\$	-	b. _____ X \$ - Stored Materials =	\$	-	c. Total Retainage (Line 5.a + Line 5.b)	\$	-	6. Amount eligible to date (Line 4 - Line 5.c)	\$	-	7. Less previous payments (Line 6 from prior application)			8. Amount due this application	\$	-	9. Balance to finish, including retainage (Line 3 - Line 4 + Line 5.c)	\$	-
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8. Amount due this application	\$	-																																			
9. Balance to finish, including retainage (Line 3 - Line 4 + Line 5.c)	\$	-																																			
Contractor's Certification The undersigned Contractor certifies, to the best of its knowledge, the following: (1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment; (2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such liens, security interest, or encumbrances); and (3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.																																					
Contractor: _____																																					
Signature: _____ Date: _____																																					
Recommended by Engineer By: _____ Title: _____ Date: _____ Approved by Funding Agency By: _____ Title: _____ Date: _____	Approved by Owner By: _____ Title: _____ Date: _____ By: _____ Title: _____ Date: _____																																				

Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner: Town of Putnam WPCA
 Engineer: CDM Smith
 Contractor: _____
 Project: Lead Service Line Replacement Program
 Contract: _____

Owner's Project No.: _____
 Engineer's Project No.: _____
 Contractor's Project No.: _____

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

A	B	C	D	E	F	G	H	I	J	K	L
Bid Item No.	Description	Contract Information				Work Completed		Materials Currently Stored (not in G) (\$)	Work Completed and Materials Stored to Date (H + I) (\$)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) (\$)
		Item Quantity	Units	Unit Price (\$)	Value of Bid Item (C X E) (\$)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) (\$)				
Original Contract											
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Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner:	Town of Putnam WPCA	Owner's Project No.:	
Engineer:	CDM Smith	Engineer's Project No.:	
Contractor:		Contractor's Project No.:	
Project:	Lead Service Line Replacement Program		
Contract:			

Application No.:	Application Period:	From		to		Application Date:	
-------------------------	----------------------------	-------------	--	-----------	--	--------------------------	--

A	B	C	D	E	F	G	H	I	J	K	L
Bid Item No.	Description	Contract Information				Work Completed		Materials Currently Stored (not in G) (\$)	Work Completed and Materials Stored to Date (H + I) (\$)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) (\$)
		Item Quantity	Units	Unit Price (\$)	Value of Bid Item (C X E) (\$)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) (\$)				
Change Orders											
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Stored Materials Summary
Contractor's Application for Payment

Owner: Town of Putnam WPCA Engineer: CDM Smith Contractor: Project: Lead Service Line Replacement Program Contract:						Owner's Project No.: Engineer's Project No.: Contractor's Project No.:							
Application No.:						Application Period: From		to		Application Date:			
A	B	C	D	E	F	G	H	I	J	K	L	M	
Item No. (Lump Sum Tab) or Bid Item No. (Unit Price Tab)	Supplier Invoice No.	Submittal No. (with Specification Section No.)	Description of Materials or Equipment Stored	Storage Location	Application No. When Materials Placed in Storage	Materials Stored			Incorporated in Work		Total Amount Incorporated in the Work (J+K) (\$)	Materials Remaining in Storage (I-L) (\$)	
						Previous Amount Stored (\$)	Amount Stored this Period (\$)	Amount Stored to Date (G+H) (\$)	Amount Previously Incorporated in the Work (\$)	Amount Incorporated in the Work this Period (\$)			
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Totals						\$	-	\$	-	\$	-	\$	-

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

CERTIFICATE OF SUBSTANTIAL COMPLETION

Prepared By



Endorsed by



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1420 King Street, Alexandria, VA 22314-2794
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www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
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CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner: Town of Putnam WPCA
Engineer: CDM Smith
Contractor:
Project: Lead Service Line Replacement Program
Contract Name:

Owner's Project No.:
Engineer's Project No.:
Contractor's Project No.:

This ☐ Preliminary ☐ Final Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

[Describe the portion of the work for which Certificate of Substantial Completion is issued]

Date of Substantial Completion: **[Enter date, as determined by Engineer]**

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities: ☐ None ☐ As follows:

[List amendments to Owner's Responsibilities]

Amendments to Contractor's Responsibilities: ☐ None ☐ As follows:

[List amendments to Contractor's Responsibilities]

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

[List attachments such as punch list; other documents]

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer

By (signature): _____

Name (printed): _____

Title: _____

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

NOTICE OF ACCEPTABILITY OF WORK

Prepared By



Endorsed By



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NOTICE OF ACCEPTABILITY OF WORK

Owner: Town of Putnam WPCA
Engineer: CDM Smith
Contractor:
Project: Lead Service Line Replacement Program
Contract Name:
Notice Date: Effective Date of the Construction Contract:

The Engineer hereby gives notice to the Owner and Contractor that Engineer recommends final payment to Contractor, and that the Work furnished and performed by Contractor under the Construction Contract is acceptable, expressly subject to the provisions of the Construction Contract's Contract Documents ("Contract Documents") and of the Agreement between Owner and Engineer for Professional Services dated **[date of professional services agreement]** ("Owner-Engineer Agreement"). This Notice of Acceptability of Work (Notice) is made expressly subject to the following terms and conditions to which all who receive and rely on said Notice agree:

1. This Notice has been prepared with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the Engineer's professional opinion.
3. This Notice has been prepared to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's Work) under the Owner-Engineer Agreement, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Owner-Engineer Agreement.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents, or to otherwise comply with the Contract Documents or the terms of any special guarantees specified therein.
6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

Engineer

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. 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, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document 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, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*
 - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

- requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
- 11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
 - 12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
 - 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 - 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
 - 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 - 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 - 17. *Cost of the Work*—See Paragraph 13.01 for definition.
 - 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 - 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 - 20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 - 21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice 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.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.
36. *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.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *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, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *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.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *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 of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, 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 a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *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; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* 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 Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - 1. does not conform to the Contract Documents;
 - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - 3. 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 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
 - 1. The word “furnish,” when used in connection with services, materials, or equipment, means 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, means 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, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 - 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. 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 Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), 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;
 - 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.

2.04 *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 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, 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 and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *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 the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will 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 the component parts of the Work.
 - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document 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.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

- A. *Standards Specifications, Codes, Laws and Regulations*
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract 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, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer 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 part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or 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) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) 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 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
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 part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); 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 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers 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 versions, or 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; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract 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 Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

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

4.03 *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.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 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 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, 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 Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing 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.

- 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 permanent improvements are to be made 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.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, 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 any such claim, and against all 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 directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will 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 and adjacent areas 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 of 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 structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

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

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on 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;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
 4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 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 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, 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 fall within any one or more of the categories described in Paragraph 5.04.A;
 - 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 Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a 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 otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then 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 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. 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 Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

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

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on 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;
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 removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) 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 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. 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, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. 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, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. 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, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. 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 failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond 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 must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, 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.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is 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; and
 - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the 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, risks, 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 Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, 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.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. 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 all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights 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 insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, 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 fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *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.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *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 maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. 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 will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *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, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will 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 must 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.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item 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 is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) 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
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. 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.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *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 an 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 will be disclosed 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.

7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. 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 the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *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.

7.11 *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. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and 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 such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13 *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.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. 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, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.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 at its expense (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).
- E. 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.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. 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.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as 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.

7.15 *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 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 by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must 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 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall 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 7.16.C.
 3. 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. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. 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, comply with the requirements of 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, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.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 will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

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.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
- 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 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 is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, or improper modification, 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.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
 - 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;
 - 6. The issuance of a notice of acceptability by Engineer;
 - 7. The end of the correction period established in Paragraph 15.08;
 - 8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, 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 losses, damages, costs, and judgments (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 from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage 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 7.18.A will 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.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. 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.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, 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.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) 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 any such claims, and against all 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 damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

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

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *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.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *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 (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- 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.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *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.

10.02 *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 10.07. 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.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

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

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, 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, will 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 Contractor under Paragraph 15.06.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 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in 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;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
 - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes 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. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-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. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *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, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. 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, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit will 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 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 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 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

- B. *Change Proposal Procedures*

- 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
- 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

- 3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
- 4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *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.

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will 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 in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will 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 accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will 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, which 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 will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
 5. Other costs consisting of 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, 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.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed 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 builder's risk or other property insurance established in accordance with Paragraph 6.04), 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 include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will 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 communication 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 that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:
 - 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general 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 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
 - 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
 - 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 5. 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.
 - 6. Expenses incurred in preparing and advancing Claims.
 - 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee*
 - 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
 - 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 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*: Contractor agrees that:
1. 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
 2. 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 for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's 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 for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 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. Payments to Contractor for Unit Price Work will be based on actual quantities.
- 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. 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, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction 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 with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- 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, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. 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. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages 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. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then 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, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages 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 pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. 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, 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, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *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, then 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 will 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.

14.07 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 defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, 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, 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 incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. 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 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *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.
 - 2. 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 must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. Review of Applications

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, 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 13.03, 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; 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;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; 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 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*

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

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. 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; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, 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, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *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 and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- 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 preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. 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 punch list.

15.04 *Partial Use or Occupancy*

- 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. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be 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 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work 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 15.03 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 6.04 regarding builder's risk or other property insurance.

15.05 *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, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *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, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
- 3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) 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, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* 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 have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. 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. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *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 Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, 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. Contractor shall pay all 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). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. 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.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, 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.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *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 written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and 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);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, 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 complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.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 the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds 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.

- F. 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, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. 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; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 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 16.03.
- 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, 7 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 are not intended to preclude Contractor from submitting a Change Proposal 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 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 - 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
 - 1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 - 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 - 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract 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.

18.03 *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. 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.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

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

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

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

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

SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

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SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added—for example, "Paragraph SC-4.05."

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

SC-1.01.A.38 – Add the following at the end of the Paragraph:

Wherever the term, "Site" appears in the Contract Documents, it will be interpreted to mean "Sites" as applicable, as the Work will occur at multiple locations.

SC-1.01.A.8 – Add the following at the end of the Paragraph:

The Change Order form to be used on this Project is EJCDC C-941 (2018). Agency approval is required before Change Orders are effective.

SC-1.01.A.50 – Add the following at the end of the Paragraph:

The Work Change Directive form to be used on this Project is EJCDC C-940 (2018). Agency approval is required before a Work Change Directive is issued.

SC-1.01.A.51 – Add the following new paragraph immediately after Paragraph 1.01.A.50:

SC-1.01.A.52 – Add the following new paragraph with the title "American Iron and Steel Definitions" immediately after Paragraph 1.01.A.51:

52. a *American Iron and Steel (AIS)* - Requirements mandated by Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference for "iron and steel products," meaning the following products, if made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and Construction Materials. AIS requirements apply in each of the several states, the District of Columbia, and each federally recognized Tribe, but not the U.S. Territories.

52. b *Coating* - A covering that is applied to the surface of an object. If a Coating is applied to the external surface of a domestic iron or Steel component, and the application takes place outside of the United States, said product would be considered a compliant product under the AIS requirements. Any Coating processes that are applied to the external surface of Iron and Steel components that would otherwise be AIS compliant would not disqualify the product from meeting the AIS requirements regardless of where the Coating processes occur, provided that final assembly of the product occurs in the United States. This exemption only applies to Coatings on the external surface of Iron and Steel components. It does not apply to Coatings or linings on internal surfaces of Iron and Steel products, such as the lining of lined pipes. All Manufacturing Processes for lined pipes, including the application of pipe lining, must occur in the United States for the product to be compliant with AIS requirements.

52. c *Construction Materials* - Those articles, materials, or supplies made primarily of iron and/or steel, that are permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems. Some of these products may overlap with what is also considered “structural steel”. Note: Mechanical and electrical components, equipment and systems are not considered Construction Materials. See definitions of Mechanical Equipment and Electrical Equipment.

52. d *Contractor’s Certification* - Documentation submitted by the Contractor upon Substantial Completion of the Contract that all Iron and Steel products installed were Produced in the United States.

52. e *De Minimis* - Various miscellaneous, incidental low-cost components that are essential for, but incidental to, the construction and are incorporated into the physical structure of the project. Examples of De Minimis components could include small washers, screws, fasteners (such as “off the shelf” nuts and bolts), miscellaneous wire, corner bead, ancillary tube, signage, trash bins, door hardware etc. Costs for such De Minimis components cumulatively may comprise no more than a total of five percent of the total cost of the materials used in and incorporated into a project; the cost of an individual item may not exceed one percent of the total cost of the materials used in and incorporated into a project.

52. f *Electrical Equipment* - Typically any machine powered by electricity and includes components that are part of the electrical distribution system. AIS does not apply to Electrical Equipment.

52. g *Engineer’s Certification* - Documentation submitted by the Engineer that Drawings, Specifications, and Bidding Documents comply with AIS.

52. h *Iron and Steel products* - The following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges,

pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and Construction Materials. Only items on the above list made primarily of iron or steel, permanently incorporated into the project must be produced in the United States. For example, trench boxes, scaffolding or equipment, which are removed from the project site upon completion of the project, are not required to be made of U.S. iron or steel.

52. i *Manufacturer* - A Supplier, fabricator, distributor, materialman, or vendor is an entity with which the Owner, Contractor or any subcontractor has contracted to furnish materials or equipment to be incorporated in the project by the Owner, Contractor or a subcontractor.

52. j *Manufacturer's Certification* - Documentation provided by the Manufacturer stating that the Iron and Steel products to be used in the project are produced in the United States in accordance with American Iron and Steel (AIS) Requirements. If items are purchased via a Supplier, distributor, vendor, etc. from the Manufacturer directly, then the Supplier, distributor, vendor, etc. will be responsible for obtaining and providing these certifications to the parties purchasing the products.

52. k *Manufacturing Processes* - Processes such as melting, refining, pouring, forming, rolling, drawing, finishing, and fabricating. Further, if a domestic Iron and Steel product is taken out of the United States for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone and iron and steel scrap are not covered by the AIS requirement, and the material(s), if any, being applied as a Coating are similarly not covered. Non-iron or Steel components of an Iron and Steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-Iron and Steel components do not have to be of domestic origin. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-U.S. sources.

52. l *Mechanical Equipment* - Typically equipment which has motorized parts and/or is powered by a motor. AIS does not apply to Mechanical Equipment.

52. m *Minor Components* - Components within an iron and/or Steel product otherwise compliant with the American Iron and Steel requirements; this waiver is typically used by Manufacturers. It differs from the De Minimis definition in that De Minimis pertains to the entire project and the minor component definition pertains to a single product. This waiver allows use of non-domestically produced miscellaneous Minor Components comprising up to five percent of the total material cost of an otherwise domestically produced Iron and Steel product. However, unless a separate waiver for a product has been approved, all other Iron and Steel components in said product must still meet the AIS requirements. This waiver does not exempt the whole product from the AIS requirements only Minor Components within said product and the iron or Steel components of the product must be produced domestically. Valves and hydrants are also subject to the cost ceiling requirements described here. Examples of Minor Components could include

items such as pins and springs in valves/hydrants, bands/straps in couplings, and other low-cost items such as small fasteners etc.

52. n *Municipal Castings* - Cast iron or Steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and solid waste infrastructure.

52. o *Primarily Iron or Steel* - A product is made of greater than 50 percent iron or Steel on a materials cost basis. An exception to this definition is reinforced precast concrete (see Definitions). All technical specifications and applicable industry standards (e.g. NIST, NSF, AWWA) must be met. If a product is determined to be less than 50 percent iron and/or steel, the AIS requirements do not apply. For example, the cost of a fire hydrant includes:

- The cost of materials used for the iron portion of a fire hydrant (e.g. bonnet, body and shoe); and
- The cost to pour and cast to create those components (e.g. labor and energy).

Not included in the cost are:

- The additional material costs for the non-iron or steel internal workings of the hydrant (e.g. stem, coupling, valve, seals, etc.); and
- The cost to assemble the internal workings into the hydrant body.

52. p *Produced in the United States* - The production in the United States of the iron or Steel products used in the project requires that all Manufacturing Processes must take place in the United States, with the exception of metallurgical processes involving refinement of steel additives.

52. q *Reinforced Precast Concrete* – Reinforced Precast Concrete structures must comply with AIS, regardless of whether or not it consists of at least 50 percent iron or steel. The reinforcing bar and wire must be produced in the United States and meet the same standards as for any other iron or Steel product. Additionally, the casting of the concrete product must take place in the United States. The cement and other raw materials used in concrete production are not required to be of domestic origin. If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered Construction Materials and must be produced in the United States.

52. r *Steel* - An alloy that includes at least 50 percent iron, between 0.02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of Steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of Steel covers carbon steel, alloy steel, stainless steel, tool steel, and other specialty steels.

52. s *Structural Steel* - Rolled flanged shapes, having at least one dimension of their cross-section three inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I-beams, channels, angles, tees, and zees. Other shapes include but are not limited to, H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

SC-2.01 Delete Paragraphs 2.01.B. in their entirety and insert the following in their place:

- B. *Evidence of Contractor's Insurance:* When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner copies of the policies (including all endorsements, and identification of applicable self-insured retentions and deductibles) of insurance required to be provided by Contractor in this Contract. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

2.02 *Copies of Documents*

SC-2.02 Amend the first sentence of Paragraph 2.02.A. to read as follows:

Owner shall furnish to Contractor **one** printed copies of the Contract Documents (including one fully signed counterpart of the Agreement), and **one copy** in electronic portable document format (PDF).

2.06 *Electronic Transmittals*

SC-2.06 Delete Paragraphs 2.06.B and 2.06.C in their entirety and insert the following in their place:

- B. *Electronic Documents Protocol:* The parties shall conform to the following provisions in Paragraphs 2.06.B and 2.06.C, together referred to as the Electronic Documents Protocol ("EDP" or "Protocol") for exchange of electronic transmittals.

1. *Basic Requirements*

- a. To the fullest extent practical, the parties agree to and will transmit and accept Electronic Documents in an electronic or digital format using the procedures described in this Protocol. Use of the Electronic Documents and any information contained therein is subject to the requirements of this Protocol and other provisions of the Contract.
- b. The contents of the information in any Electronic Document will be the responsibility of the transmitting party.
- c. Electronic Documents as exchanged by this Protocol may be used in the same manner as the printed versions of the same documents that are exchanged using non-electronic format and methods, subject to the same governing requirements, limitations, and restrictions, set forth in the Contract Documents.

- d. Except as otherwise explicitly stated herein, the terms of this Protocol will be incorporated into any other agreement or subcontract between a party and any third party for any portion of the Work on the Project, or any Project-related services, where that third party is, either directly or indirectly, required to exchange Electronic Documents with a party or with Engineer. Nothing herein will modify the requirements of the Contract regarding communications between and among the parties and their subcontractors and consultants.
 - e. When transmitting Electronic Documents, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the receiving party's use of software application packages, operating systems, or computer hardware differing from those established in this Protocol.
 - f. Nothing herein negates any obligation 1) in the Contract to create, provide, or maintain an original printed record version of Drawings and Specifications, signed and sealed according to applicable Laws and Regulations; 2) to comply with any applicable Law or Regulation governing the signing and sealing of design documents or the signing and electronic transmission of any other documents; or 3) to comply with the notice requirements of Paragraph 18.01 of the General Conditions.
2. *System Infrastructure for Electronic Document Exchange*
- a. Each party will provide hardware, operating system(s) software, internet, e-mail, and large file transfer functions ("System Infrastructure") at its own cost and sufficient for complying with the EDP requirements. With the exception of minimum standards set forth in this EDP, and any explicit system requirements specified by attachment to this EDP, it is the obligation of each party to determine, for itself, its own System Infrastructure.
 - 1) The maximum size of an email attachment for exchange of Electronic Documents under this EDP is **15 MB**. Attachments larger than that may be exchanged using large file transfer functions or physical media.
 - 2) Each Party assumes full and complete responsibility for any and all of its own costs, delays, deficiencies, and errors associated with converting, translating, updating, verifying, licensing, or otherwise enabling its System Infrastructure, including operating systems and software, for use with respect to this EDP.
 - b. Each party is responsible for its own system operations, security, back-up, archiving, audits, printing resources, and other Information Technology ("IT") for maintaining operations of its System Infrastructure during the Project, including coordination with the party's individual(s) or entity responsible for managing its System Infrastructure and capable of addressing routine communications and other IT issues affecting the exchange of Electronic Documents.

- c. Each party will operate and maintain industry-standard, industry-accepted, ISO-standard, commercial-grade security software and systems that are intended to protect the other party from: software viruses and other malicious software like worms, trojans, adware; data breaches; loss of confidentiality; and other threats in the transmission to or storage of information from the other parties, including transmission of Electronic Documents by physical media such as CD/DVD/flash drive/hard drive. To the extent that a party maintains and operates such security software and systems, it shall not be liable to the other party for any breach of system security.
- d. In the case of disputes, conflicts, or modifications to the EDP required to address issues affecting System Infrastructure, the parties shall cooperatively resolve the issues; but, failing resolution, the Owner is authorized to make and require reasonable and necessary changes to the EDP to effectuate its original intent. If the changes cause additional cost or time to Contractor, not reasonably anticipated under the original EDP, Contractor may seek an adjustment in price or time under the appropriate process in the Contract.
- e. Each party is responsible for its own back-up and archive of documents sent and received during the term of the contract under this EDP, unless this EDP establishes a Project document archive, either as part of a mandatory Project website or other communications protocol, upon which the parties may rely for document archiving during the specified term of operation of such Project document archive. Further, each party remains solely responsible for its own post-Project back-up and archive of Project documents after the term of the Contract, or after termination of the Project document archive, if one is established, for as long as required by the Contract and as each party deems necessary for its own purposes.
- f. If a receiving party receives an obviously corrupted, damaged, or unreadable Electronic Document, the receiving party will advise the sending party of the incomplete transmission.
- g. The parties will bring any non-conforming Electronic Documents into compliance with the EDP. The parties will attempt to complete a successful transmission of the Electronic Document or use an alternative delivery method to complete the communication.
- h. The Engineer will operate a Project information management system (also referred to in this EDP as “Project Website”) for use of Owner, Engineer and Contractor during the Project for exchange and storage of Project-related communications and information. Except as otherwise provided in this EDP or the General Conditions, use of the Project Website by the parties as described in this Paragraph will be mandatory for exchange of Project documents, communications, submittals, and other Project-related information. The following conditions and standards will govern use of the Project Website:

- 1) Describe the period of time during which the Project Website will be operated and be available for reliance by the parties;
- 2) Provide any minimum system infrastructure, software licensing and security standards for access to and use of the Project Website;
- 3) Describe the types and extent of services to be provided at the Project Website (such as large file transfer, email, communication and document archives, etc.); and
- 4) Include any other Project Website attributes that may be pertinent to Contractor's use of the facility and pricing of such use.
- 5) The Engineer will create and use a Microsoft SharePoint page to share large documents and project files included in the e-Builder workflow.

C. *Software Requirements for Electronic Document Exchange; Limitations*

1. Each party will acquire the software and software licenses necessary to create and transmit Electronic Documents and to read and to use any Electronic Documents received from the other party (and if relevant from third parties), using the software formats required in this section of the EDP.
 - a. Prior to using any updated version of the software required in this section for sending Electronic Documents to the other party, the originating party will first notify and receive concurrence from the other party for use of the updated version or adjust its transmission to comply with this EDP.
2. The parties agree not to intentionally edit, reverse engineer, decrypt, remove security or encryption features, or convert to another format for modification purposes any Electronic Document or information contained therein that was transmitted in a software data format, including Portable Document Format (PDF), intended by sender not to be modified, unless the receiving party obtains the permission of the sending party or is citing or quoting excerpts of the Electronic Document for Project purposes.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

SC-3.01 Delete Paragraph 3.01.C in its entirety.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.01.A Delete the last sentence of the paragraph.

4.05 *Delays in Contractor's Progress*

SC-4.05 Amend Paragraph 4.05.C by adding the following subparagraphs:

5. *Weather-Related Delays*

- a. If “abnormal weather conditions” as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled. Extreme or unusual weather that is typical for a given region, elevation, or season should not be considered abnormal weather conditions. Requests for time extensions due to abnormal weather conditions will be submitted to the Engineer within five days of the end of the abnormal weather condition event.

ARTICLE 5—SITE, SUBSURFACE AND PHYSICAL CONDITIONS, HAZARDOUS ENVIRONMENTAL CONDITIONS

5.03 *Subsurface and Physical Conditions*

SC-5.03 No reports or drawings of Subsurface and Physical Conditions at or contiguous to the Site are known to the Owner or Engineer.

5.06 *Hazardous Environmental Conditions*

SC-5.06 No reports or drawings of Hazardous Environmental Conditions at or contiguous to the Site are known to the Owner or Engineer.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

SC-6.01 Add the words “and Liquidated damages” after “Performance, Payment, and Other Bonds”.

SC-6.01 Amend the second sentence of paragraph 6.01.A by replacing the words “correction period” with the words “warranty period.”

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. *Required Performance Bond Form:* The performance bond that Contractor furnishes will be in the form of EJCDC® C-610, Performance Bond (2010, 2013, or 2018 edition).
2. *Required Payment Bond Form:* The payment bond that Contractor furnishes will be in the form of EJCDC® C-615, Payment Bond (2010, 2013, or 2018 edition).

6.03 *Contractor’s Insurance*

SC-6.03 Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

- D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability,

Exhibit C—Geotechnical Baseline Report Supplement to the Supplementary Conditions.

EJCDC® C-800, Supplementary Conditions of the Construction Contract.

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umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following: **State of Connecticut**

- E. *Workers' Compensation and Employer's Liability*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

Workers' Compensation and Related Policies	Policy limits of not less than:
Workers' Compensation	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
Employer's Liability	
Each accident	\$100,000
Each employee	\$100,000
Disease policy limit	\$500,000
Stop-gap Liability Coverage	
For work performed in monopolistic states, stop-gap liability coverage must be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of: Employer's Liability	\$500,000

- F. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
 2. damages insured by reasonably available personal injury liability coverage, and
 3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- G. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage.
 - a. Such insurance must be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract)

evidence of continuation of such insurance at final payment and three years thereafter.

2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
 4. Underground, explosion, and collapse coverage.
 5. Personal injury coverage.
 6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
 7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:
1. Any modification of the standard definition of "insured contract" (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
 2. Any exclusion for water intrusion or water damage.
 3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
 4. Any exclusion of coverage relating to earth subsidence or movement.
 5. Any exclusion for the insured's vicarious liability, strict liability, or statutory liability (other than worker's compensation).
 6. Any limitation or exclusion based on the nature of Contractor's work.
 7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

Commercial General Liability	Policy limits of not less than:
General Aggregate	\$2,000,000
Products—Completed Operations Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000

Commercial General Liability	Policy limits of not less than:
Bodily Injury and Property Damage—Each Occurrence	\$1,000,000

- J. *Automobile Liability:* Contractor shall purchase and maintain automobile liability insurance 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. The automobile liability policy must be written on an occurrence basis.

Automobile Liability	Policy limits of not less than:
Bodily Injury	
Each Person	\$1,000,000
Each Accident	\$1,000,000
Property Damage	
Each Accident	\$1,000,000
[or]	
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	\$1,000,000

- K. *Umbrella or Excess Liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the Paragraphs above. The coverage afforded must be at least as broad as that of each and every one of the underlying policies.

Excess or Umbrella Liability	Policy limits of not less than:
Each Occurrence	\$5,000,000
General Aggregate	\$5,000,000

- L. *Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements:* Contractor may meet the policy limits specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy's policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein. If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of **\$10,000,000** after accounting for partial attribution of its limits to underlying policies, as allowed above.
- M. *Contractor's Pollution Liability Insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance must be maintained for no less than three years after final completion.

Contractor's Pollution Liability	Policy limits of not less than:
Each Occurrence/Claim	\$1,000,000
General Aggregate	\$1,000,000

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.03 Labor; Working Hours

SC-7.03 Add the following new subparagraphs immediately after Paragraph 7.03.C:

1. Regular working hours will be **7 AM – 5 PM**. Working outside these hours is allowed with prior discussion of scope of work and approval by the Engineer and Owner.

SC-7.04D Add the following new paragraph immediately after Paragraph 7.04.D:

D. All Iron and Steel products must meet American Iron and Steel requirements.

SC-7.04.E – Add the following new paragraph immediately after Paragraph 7.04.D:

- E. For projects utilizing a *De Minimis* waiver, Contractor shall maintain an itemized list of non-domestically produced iron or steel incidental components and ensure that the cost is less than 5% of total materials cost for project.

SC-7.05.A – Amend the third sentence of paragraph by striking out the following words:

Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or-equal” item is permitted,

SC-7.05.A.1.a.4 – Delete paragraph in its entirety and insert “Deleted.”

SC-7.05.B – Add the following at the end of paragraph:

Contractor shall include a Manufacturer's Certification letter for compliance with American Iron and Steel requirements in support data, if applicable. Refer to Manufacturer's Certification Letter provided in these Contract Documents.

SC-7.06.A.3.a.2 – Remove “and” from the end of paragraph. SC-7.06.A.3.a.3 – Add “; and” to the end of paragraph.

SC-7.06.A.3.a.4 – Add the following new paragraph immediately after Paragraph 7.06.A.3.a.3:

Comply with American Iron and Steel by providing Manufacturer's Certification letter of American Iron and Steel compliance, if applicable. Refer to Manufacturer's Certification Letter provided in these Contract Documents.

SC-7.07.A – Amend by adding the following to the end of the paragraph:

The total amount of work subcontracted by the Contractor shall not exceed fifty percent of the Contract price without prior approval from the Owner, Engineer and Agency.

SC-7.07.B – Delete paragraph in its entirety and insert "Deleted".

SC-7.07.E – Delete the second sentence of paragraph and insert the following in its place: Owner may not require that Contractor use a specific replacement.

7.10 *Taxes*

SC-7.10B – Add a new paragraph immediately after paragraph 7.10.A of the General conditions as follows:

"7.10.b. Under the terms of the regulations issued by the State Tax Commission in administration of the State Sales and Use Tax, Contractor and its Subcontractors and Suppliers may purchase such materials and supplies as are to be physically incorporated in and will become a permanent part of the Work performed under these Contract Documents without payment of tax."

7.13 *Safety and Protection*

SC-7.12.A Amend paragraph by adding the following after "written interpretations and clarifications,": Manufacturers' Certifications,

SC-7.16.A.1.c – Amend paragraph by deleting the last period and adding:

, including Manufacturer's Certification letter for any item in the submittal subject to American Iron and Steel requirements and include the Certificate in the submittal. Refer to Manufacturer's Certification Letter provided in these Contract Documents.

SC-7.16.C.9 – Add new paragraph immediately after Paragraph 7.16.C.8:

9. Engineer's review and approval of a Shop Drawing or Sample shall include review of Manufacturers' Certifications in order to document compliance with American Iron and Steel requirements, as applicable.

SC-7.17.F – Add new paragraph immediately after Paragraph 7.17.E:

F. Contractor shall certify upon Substantial Completion that all Work and Materials have complied with American Iron and Steel requirements as mandated by Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference. Contractor shall provide

said Certification to Owner. Refer to General Contractor's Certification Letter provided in these Contract Documents.

ARTICLE 8—OTHER WORK AT THE SITE

No suggested Supplementary Conditions in the Article.

ARTICLE 9—OWNER'S RESPONSIBILITIES

No suggested Supplementary Conditions in this Article.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.03 *Resident Project Representative*

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.B:

- C. The Resident Project Representative (RPR) will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:
 - 1. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
 - 2. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.
 - 3. *Liaison*
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for Contractor's proper execution of the Work.
 - 4. *Review of Work; Defective Work*
 - a. Conduct on-Site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Observe whether any Work in place appears to be defective.

- c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.
- 5. *Inspections and Tests*
 - a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.
 - b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.
- 6. *Payment Requests: Review Applications for Payment with Contractor.*
- 7. *Completion*
 - a. Participate in Engineer's visits regarding Substantial Completion.
 - b. Assist in the preparation of a punch list of items to be completed or corrected.
 - c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
 - d. Observe whether items on the final punch list have been completed or corrected.
- D. The RPR will not:
 - 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 - 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
 - 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
 - 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.
 - 5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
 - 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
 - 7. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 11—CHANGES TO THE CONTRACT

SC-11.02.C – Add new paragraph immediately after Paragraph 11.02.B:

- C. The Engineer or Owner shall contact the Agency for concurrence on each Change Order prior to issuance. All Contract Change Orders must be concurred on (signed) by Agency before they are effective.

SC-11.03.A.2 - Add new Paragraph 11.03.A.2 immediately after Paragraph 11.03.A, which shall be renamed Paragraph 11.03.A.1:

- 2. The Engineer or Owner shall contact the Agency for concurrence on each Work Change Directive prior to issuance. Once authorized by Owner, a copy of each Work Change Directive shall be provided by Engineer to the Agency.

SC-11.05.B – Add the following at the end of this paragraph:

For Owner-authorized changes in the Work, the Contractor will provide the Manufacturer's Certification(s) for materials subject to American Iron and Steel requirements except when sole-source is specified, in which case the Engineer will provide the Manufacturer's Certification(s).

SC-11.09.B.2.c – Add new paragraph immediately after Paragraph 11.09.B.2.b:

c. Change orders involving materials subject to American Iron and Steel requirements shall include supporting data (name of Manufacturer, city and state where the product was manufactured, description of product, signature of authorized Manufacturer's representative) in the Manufacturer's Certification Letter, as applicable.

ARTICLE 12—CLAIMS

No suggested Supplementary Conditions in this Article.

ARTICLE 13—COST OF WORK; ALLOWANCES, UNIT PRICE WORK

13.01 *Cost of the Work*

SC-13.01 Supplement Paragraph 13.01.B.5.c.(2) by adding the following sentence:

The equipment rental rate book that governs the included costs for the rental of machinery and equipment owned by Contractor (or a related entity) under the Cost of the Work provisions of this Contract is the most current edition of "Rental Rate Blue Book".

SC-13.02.C Delete paragraph in its entirety and insert "Deleted".

13.03 Unit Price Work

SC-13.03.E Delete paragraph in its entirety and replace with SC 13.03.E as shown in the EJCDC C-800 Supplementary Conditions.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

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

Contractor shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approval required by the Contract Documents. The Engineer shall approve the use of any testing agency prior to the agency providing any services.

SC-14.03.G – Add new paragraph immediately after Paragraph 14.03.F:

- a. Installation of materials that are non-compliant with American Iron and Steel requirements shall be considered defective work.

ARTICLE 15—PAYMENTS TO CONTRACTOR, SET OFFS; COMPLETIONS; CORRECTION PERIOD

15.01 *Progress Payments*

SC-15.01.A Add the following new subparagraph 14.02.A:

4. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:

- a. List of subcontractors.
- b. Contractor's Construction Schedule (preliminary if not final).
- c. Submittals Schedule (preliminary if not final).
- d. List of Contractor's staff assignments.
- e. List of Contractor's principal consultants.
- f. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
- g. Certificates of insurance and insurance policies.
- h. Project Signs Installed
- i. Copies of permits

SC-15.01.B.4 – Add the following language at the end of paragraph:

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-15.01.B.5 – Add new paragraph immediately after Paragraph 15.01.B.4:

The Application for Payment form to be used on this Project is EJCDC® C-620. The Agency must approve all Applications for Payment before payment is made.

SC-15.01.B.6 – Add new paragraph immediately after Paragraph 15.01.B.5:

By submitting an Application for Payment based in whole or in part on furnishing equipment or materials, Contractor certifies that such equipment and materials are compliant with American Iron and Steel requirements. Manufacturer's Certification letter for materials satisfy this requirement. Refer to Manufacturer's Certification Letter provided in these Contract Documents.

SC-15.01.C.2.d – Add the following new paragraph immediately after Paragraph 15.01.C.2.c:

d. The materials presented for payment in an Application for Payment comply with American Iron and Steel requirements.

SC-15.01.D.1 – Delete paragraph in its entirety and insert the following in its place:

The Application for Payment with Engineer's recommendations will be presented to the Owner and Agency for consideration. If both the Owner and Agency find the Application for Payment acceptable, the recommended amount less any reduction under the provisions of Paragraph 15.01.E will become due twenty (20) days after the Application for Payment is presented to the Owner, and the Owner will make payment to the Contractor.

SC-15.02.A – Amend paragraph by striking out the following text: "7 days after".

15.03 *Substantial Completion*

SC-15.03.A Modify by adding the following after the last sentence:

Contractor shall also submit the General (Prime) Contractor's Certification of Compliance certifying that to the best of the Contractor's knowledge and belief all substitutes, equals, and all Iron and Steel products proposed in the Shop Drawings, Change Orders, and Partial Payment Estimates, and those installed for the Project, are either Produced in the United States or are the subject of an approved waiver under Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

No suggested Supplementary Conditions in this Article.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

No suggested Supplementary Conditions in this Article.

ARTICLE 18—MISCELLANEOUS

SC-18.11 – Add new paragraph immediately after Paragraph 18.10:

18.11 Tribal Sovereignty

A. No Tribes will be affected.

SC-19 – Add the following new Article 19 immediately after Article 18:

ARTICLE 19—FEDERAL REQUIREMENTS

9.01 Agency Not a Party

A. This Contract is expected to be funded in part with funds provided by Agency. Neither Agency, nor any of its departments, entities, or employees, is a party to this Contract.

19.02 Contract Approval

A. Owner and Contractor will furnish Owner's attorney such evidence as required so that Owner's attorney can complete and execute the "Certificate of Owner's Attorney" (Exhibit G of this Bulletin) before Owner submits the executed Contract Documents to Agency for approval.

B. Agency concurrence is required on both the Bid and the Contract before the Contract is effective.

19.03 Conflict of Interest

A. Contractor may not knowingly contract with a Supplier or Manufacturer if the individual or entity who prepared the Drawings and Specifications has a corporate or financial affiliation with the Supplier or Manufacturer. Owner's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest or other interest in or a tangible personal benefit from the Contractor.

Owner's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from Contractor or subcontractors.

19.04 Gratuities

A. If Owner finds after a notice and hearing that Contractor, or any of Contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of Owner or Agency in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, Owner may, by written notice to Contractor, terminate this Contract. Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which Owner bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of this Contract.

B. In the event this Contract is terminated as provided in paragraph 19.04.A, Owner may pursue the same remedies against Contractor as it could pursue in the event of a breach of this Contract by Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, Owner may pursue exemplary damages in an amount (as determined by Owner) which shall not be less than three nor more than ten times the costs Contractor incurs in providing any such gratuities to any such officer or employee.

19.05 Small, Minority and Women's Businesses

A. If Contractor intends to let any subcontracts for a portion of the work, Contractor will take all necessary affirmative steps to assure that minority businesses, women's business

enterprises, and labor surplus area firms are used when possible. Affirmative steps will include:

1. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
2. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
3. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
5. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

19.06 Anti-Kickback

A. Contractor shall comply with the Copeland Anti-Kickback Act (40 USC 3145) as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part by Loans or Grants of the United States"). The Act provides that Contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. Owner shall report all suspected or reported violations to Agency.

19.07 Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended

A. Contractor to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

19.08 Equal Employment Opportunity

A. The Contract is considered a federally assisted construction contract. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246

Exhibit C—Geotechnical Baseline Report Supplement to the Supplementary Conditions.

EJCDC® C-800, Supplementary Conditions of the Construction Contract.

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Relating to Equal Employment Opportunity,” and implementing regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”

19.09 Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)

A. Contractors that apply or bid for an award exceeding \$100,000 must file the required certification (RD Instruction 1940-Q Exhibit A-1). The Contractor certifies to the Owner and every subcontractor certifies to the Contractor that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining the Contract if it is covered by 31 U.S.C. 1352. The Contractor and every subcontractor must also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by Owner.

19.10 Environmental Requirements

A. When constructing a Project involving trenching and/or other related earth excavations, Contractor shall comply with the following environmental conditions:

1. Wetlands – When disposing of excess, spoil, or other Construction Materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.

2. Floodplains – When disposing of excess, spoil, or other Construction Materials on public or private property, Contractor shall not fill in or otherwise convert 100-year floodplain areas (Standard Flood Hazard Area) delineated on the latest Federal Emergency Management Agency Floodplain Maps, or other appropriate maps, e.g., alluvial soils on NRCS Soil Survey Maps.

3. Historic Preservation - Applicants shall ensure that Contractors maintain a copy of the following inadvertent discovery plan onsite for review:

A. If during the course of any ground disturbance related to any Project, any post review discovery, including but not limited to, any artifacts, foundations, or other indications of past human occupation of the area are uncovered, shall be protected by complying with 36 CFR § 800.13(b)(3) and (c) and shall include the following:

- I. All Work, including vehicular traffic, shall immediately stop within a 50 ft. radius around the area of discovery. The Contractor shall ensure barriers are established to protect the area of discovery and notify the Engineer to contact the appropriate RD personnel. The Engineer shall engage a Secretary of the Interior (SOI) qualified

professional archeologist to quickly assess the nature and scope of the discovery; implement interim measures to protect the discovery from looting and vandalism; and establish broader barriers if further historic and/or precontact properties, can reasonably be expected to occur.

- II. The RD personnel shall notify the appropriate RD environmental staff member, the Federal Preservation Officer (FPO), and State Historic Preservation Office (SHPO) immediately. Indian tribe(s) or Native Hawaiian Organization (NHOs) that have an interest in the area of discovery shall be contacted immediately. The SHPO may require additional tribes or NHOs who may have an interest in the area of discovery also be contacted. The notification shall include an assessment of the discovery provided by the SOI qualified professional archeologist.
- III. When the discovery contains burial sites or human remains, the Contractor shall immediately notify the appropriate RD personnel who will contact the RD environmental staff member, FPO, and the SHPO. The relevant law enforcement authorities shall be immediately contacted by onsite personnel to reduce delay times, in accordance with tribal, state, or local laws including 36 CFR Part 800.13; 43 CFR Part 10, Subpart B; and the Advisory Council on Historic Preservation's Policy Statement Regarding treatment of Burial Sites, Human Remains, or Funerary Objects (February 23, 2007).
- IV. When the discovery contains burial sites or human remains, all construction activities, including vehicular traffic shall stop within a 100 ft. radius of the discovery and barriers shall be established. The evaluation of human remains shall be conducted at the site of discovery by a SOI qualified professional. Remains that have been removed from their primary context and where that context may be in question may be retained in a secure location, pending further decisions on treatment and disposition. RD may expand this radius based on the SOI professional's assessment of the discovery and establish broader barriers if further subsurface burial sites, or human remains can reasonably be expected to occur. RD, in consultation with the SHPO and interested tribes or NHOs, shall develop a plan for the treatment of native human remains.
- V. Work may continue in other areas of the undertaking where no historic properties, burial sites, or human remains are present. If the inadvertent discovery appears to be a consequence of illegal activity such as looting, the onsite personnel shall contact the appropriate

legal authorities immediately if the landowner has not already done so.

- VI. Work may not resume in the area of the discovery until a notice to proceed has been issued by RD. RD shall not issue the notice to proceed until it has determined that the appropriate local protocols and consulting parties have been consulted.
- VII. Inadvertent discoveries on federal and tribal land shall follow the processes required by the federal or tribal entity.

4. Endangered Species – Contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of Contractor, Contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the U.S. Fish and Wildlife Service.

5. Mitigation Measures – The following environmental mitigation measures are required on this Project: *[Insert mitigation measures from the Letter of Conditions here]*.

19.11 Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)

A. Where applicable, for contracts awarded by the Owner in excess of \$100,000 that involve the employment of mechanics or laborers, the Contractor will comply with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, the Contractor will compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic will be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

19.12 Debarment and Suspension (Executive Orders 12549 and 12689)

A. A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or

otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

19.13 Procurement of recovered materials

A. The Contractor will comply with 2 CFR Part 200.322, "Procurement of recovered materials."

19.14 American Iron and Steel

A. Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference applies an American Iron and Steel requirement to this project. All iron and steel products used in this project must be produced in the United States. The term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and Construction Materials.

B. The following waivers apply to this Contract:

1. *De Minimis*,
2. Minor Components,
3. Pig iron and direct reduced iron, and
4. [add project specific waivers as applicable].

ATTACHMENTS TO SUPPLEMENTARY CONDITIONS

1. RCSA Section 22a-482-4
2. State and Federal Contract Provisions
3. Contractor's Exempt Purchase Certificate
4. Bidder's Non-Collusion and Fraud Affidavit
5. Executive Order 3
6. Executive Order 17
7. Executive Order 16
8. Executive Order 12549
9. CT General Statutes
10. Clean Water Memo 2019-003
11. Subcontractor Verification Form
12. Prohibition on certain telecommunication and video surveillance services or equipment
13. EPA AIS Guidance Document
14. Section 306 of the Clean Air Act & Section 508 of the Clean Water Act
15. Executive Order 11738
16. Age Discrimination Act of 1975
17. Section 13 of the Federal Water Pollution Control Act Amendments of 1972
18. Section 504 of the Rehabilitation Act of 1973
19. Executive Orders 11914 and 12250
20. Signage Certification Form
21. M-24-02 Buy America Implementation Guidance
22. OW BABA Implementation Procedures
23. BABA De Minimis On-Going Tally Form
24. BABA De Minimis Final Report
25. Prevailing Wages Information
26. Davis Bacon and Related Acts Weekly Certified Payroll Form
27. Labor Standards Interview – Standard Form 1445

REQUIRED CONSTRUCTION CONTRACT PROVISIONS UNDER THE CONNECTICUT DEPARTMENT OF PUBLIC HEALTH DRINKING WATER STATE REVOLVING FUND

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.

22a-482-4 (g)(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

22a-482-4 (g)(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.

22a-482-4 (g)(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 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.

22a-482-4 (g)(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.

22a-482-4 (g)(S) 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.

22a-482-4 (g)(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.

22a-482-4 (g)(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.

22a-482-4 (g)(8) Remedies

Except as may be otherwise provided in this contract, all claims, counter-claims, 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.

22a-482-4 (g)(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.

22a-482-4 (g)(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(i)(6) 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.

22a-482-4 (g)(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.

22a-482-4 (g){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.

22a-482-4 (g){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.

22a-482-4 (g)(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.

22a-482-4(h) PROCUREMENT REQUIREMENTS - GENERAL

22a-482-4(h)(1) Applicability

This defines the responsibilities of the State and the municipality and the minimum procurement standards for each municipality's procurement system.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(6) Violations.

The municipality shall refer violations of law to the local or State officials having the proper jurisdiction.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(10) Privity of subagreement.

The State shall not be a party to any subagreement nor to any solicitation or request for proposals.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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; municipality's 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.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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.

22a-482-4(h)(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 subsection (i)(5) of this section.

22a-482-4(h)(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.

22a-482-4(h)(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) (6).

(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.

22a-482-4(h)(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).

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.)

22a-482-4 (j)(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-plus-percentage-of-cost contract shall not be used in any event.

22a-482-4 (j)(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 nonresponsive. 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.

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TITLE 22a. Environmental Protection

*Department of Environmental Protection**§22a-482-4***(k) Negotiation of Contract Amendments (Change Orders).**

(1) The municipality is responsible for the negotiation of construction contract change orders. This function may be performed by the municipality directly or, if authorized, by its engineer. During negotiations with the contractor the municipality shall:

(A) make certain that the contractor has a clear understanding of the scope and extent of work and other essential requirements;

(B) assure that the contractor demonstrates that he will make available or will obtain the necessary personnel, equipment and materials to accomplish the work within the required time; and

(C) assure a fair and reasonable price for the required work.

(2) The contract price or time may be changed only by a change order. When negotiations are required, they shall be conducted in accordance with subdivisions (3) and (4) of this subsection as appropriate. The value of any work covered by a change order, or of any claim for increase or decrease in the contract price, shall be determined by the method set forth in subparagraphs (A) to (C) of this subdivision, whichever is most advantageous to the municipality.

(A) Unit prices.

(i) Original bid items. Unit prices previously approved are acceptable for pricing changes of original bid items. However, when changes in quantities exceed 15 percent of the original bid quantity and the total dollar change of that bid item is significant, the municipality shall review the unit price to determine if a new unit price should be negotiated.

(ii) New items. Unit prices of new items shall be negotiated.

(B) Lump Sums shall be negotiated.

(C) Cost reimbursement. The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work plus an amount to be agreed upon to cover the cost of general overhead and profit to be negotiated.

(3) For each change order not in excess of \$100,000 the contractor shall submit sufficient cost and pricing data to the municipality to enable the municipality to determine the necessity and reasonableness of costs and amounts proposed, and the allowability and eligibility of costs proposed.

(4) For each change order in excess of \$100,000, the contractor shall submit to the municipality for review sufficient cost and pricing data as described in subparagraphs (A) to (E) of this subdivision to enable the municipality to ascertain the necessity and reasonableness of costs and amounts proposed, and the allowability and eligibility of costs proposed.

(A) The contractor shall certify that proposed costs reflect complete, current, and accurate cost and pricing data applicable to the date of the change order.

(B) In addition to the specific elements of cost, the estimated amount of profit shall be set forth separately in the cost summary for fixed price change orders and a specific total dollar amount of profit will be set forth separately in the cost summary for cost reimbursement change orders.

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(C) The municipality may require more detailed cost data in order to substantiate the reasonableness of proposed change order costs. The Commissioner may, on a selected basis, perform a detailed cost analysis on any change order.

(D) For costs under cost reimbursement change orders, the contractor shall have an accounting system which accounts for such costs in accordance with generally accepted accounting principles. This system shall provide for the identification, accumulation and segregation of allowable and unallowable change orders. Allowable change order costs shall be determined in accordance with subsections (a), (b), (c), (d) and (e) of this section. The contractor shall propose and account for such costs in a manner consistent with his normal accounting procedures.

(E) Change orders awarded on the basis of review of a cost element summary and a certification of complete, current, and accurate cost and pricing data shall be subject to downward renegotiation and recoupment of funds where a subsequent audit substantiates that such certification was not based on complete, current and accurate cost and pricing data.

(5) Review by Commissioner. The municipality shall submit, before the execution of any change order in excess of \$100,000, to the Commissioner for review and approval:

- (A) the cost and pricing data the contractor submitted;
- (B) a certification of review and acceptance of the contractor's cost or price; and
- (C) a copy of the proposed change order.

(6) Profit. The objective of negotiations shall be the exercise of sound business judgment and good administrative practice, including the determination of a fair and reasonable profit based on the contractor's assumption of risk and input to total performance, and not merely the application of a predetermined percentage factor. For the purpose of negotiated change orders to construction contracts profit is defined as the net proceeds obtained by deducting all allowable costs (direct and indirect) from the price. The municipality should review the estimate of profit as it reviews all other elements of price.

(7) Related Work. Related work shall not be split into two amendments or change orders merely to keep it under \$100,000 and thereby avoid the requirements of subdivision (4) of this subsection. For change orders which include both additive and deductive items:

(A) if any single item (additive or deductive) exceeds \$100,000 the requirements of subdivision (4) of this subsection shall be applicable;

(B) if no single additive or deductive item has a value of \$100,000 but the total price of the change order is over \$100,000, the requirements of subdivision (4) of this subsection shall be applicable; and

(C) if the total of additive items of work in the change order exceeds \$100,000, or the total of deductive items of work in the change order exceeds \$100,000, and the net price of the change order is less than \$100,000, the requirements of subdivision (4) of this subsection shall be applicable.

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**22a-482-4 (1) SUBCONTRACTS UNDER
CONSTRUCTION CONTRACTS.**

22a-482-4 (1)(1)

The award or execution of subcontracts by a prime contractor under a construction contract awarded to the prime contractor by the municipality, and the procurement and negotiation procedures used by prime contractors in awarding or executing subcontracts are not required to comply with any of the provisions, selection procedures, policies or principles set forth in Section 22a-482-4(h) or (j) except those specifically stated in this section. In addition, the bid protest procedures of Section 22a-482-4(o) are not available to parties executing subcontracts with prime contractors except as specifically provided in that section.

22a-482-4 (1)(2)

The award or execution of subcontracts by a prime contractor under a formally advertised, competitively bid, fixed price construction contract awarded to the prime contractor by the municipality, and the procurement and negotiation procedures used by such prime contractors in awarding or executing such subcontracts must comply with any municipality procurement system, State small, minority and women's business policy, (Section 22a-482-4(h)(9)), negotiation of contract amendments (Section 22a-482-4(k)), and clauses (8) and (9) of Section 22a-482-4(g).

Regulations of Connecticut State Agencies

TITLE 22a. Environmental Protection

*Department of Environmental Protection**§22a-482-4***(n) Retention from Progress Payments.**

(1) The municipality may retain a portion of the amount otherwise due the contractor. The amount the municipality retains shall be limited to the following:

(A) withholding of not more than 5 percent of the payment claimed until work is 50 percent complete;

(B) when work is 50 percent complete, reduction of the withholding to 2 percent of the dollar value of all work satisfactorily completed to date, provided that the contractor is making satisfactory progress and there is no specific cause for greater withholding;

(C) when the work is substantially complete (operational or beneficial occupancy), the withheld amount shall be further reduced below 2 percent to only that amount necessary to assure completion;

(D) the municipality may reinstate up to 5 percent withholding if the municipality determines, at its discretion, that the contractor is not making satisfactory progress or there is other specific cause for such withholding; and

(E) the municipality may accept securities, negotiable without recourse, condition or restrictions, a release of retainage bond, or an irrevocable letter of credit provided by the contractor instead of all or part of the cash retainage.

(2) The requirements set out in subdivision (1) of this subsection shall be implemented with respect to all construction projects. Appropriate provision to assure compliance with these requirements shall be included in the bid documents for such projects initially or by addendum before the bid submission date and as a special condition in the funding agreement or in an amendment which is issued by the Commissioner.

(3) A municipality which delays disbursement to contractors of funds will be required to credit to the Clean Water Fund all interest earned on those funds and will be responsible for any and all tax law violations which occur as a result of their actions.

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22a-482-4 (o) PROTESTS

22a-482-4 (o)(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).

22a-482-4 (o)(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.

22a-482-4 (o)(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.

22a-482-4 (o)(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.

22a-482-4 (o)(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.

22a-482-4 (o)(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.

22a-482-4 (o)(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.

22a-482-4 (o)(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(h)(23).

22a-482-4 (o)(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).

Regulations of Connecticut State Agencies

TITLE 22a. Environmental Protection

*Department of Environmental Protection**§22a-482-4*

(p) **Funding Assistance Conditions.** Financing for pollution abatement facilities shall be subject to the following conditions:

(1) Municipality Responsibilities.

(A) Review or approval of engineering reports, plans and specifications or other documents by the Commissioner is for administrative purposes only and does not relieve the municipality of its responsibility to properly plan, design, build and effectively operate and maintain the pollution abatement facilities described in the funding assistance agreement as required under law, regulations, permits, and good management practices. The Commissioner is not responsible for increased building costs resulting from defects in the plans, design drawings and specifications or other subagreement documents.

(B) By its acceptance of financing, the municipality agrees to complete the pollution abatement facilities in accordance with the engineering report, plans and specifications and related documents approved by the Commissioner and to maintain and operate the pollution abatement facilities to meet the enforceable requirements of the permit issued pursuant to section 22a-430 of the Connecticut General Statutes for the design life of the pollution abatement facilities. The Commissioner may seek specific enforcement or recovery of funds from the municipality, or take other appropriate action if he or she determines that the municipality has failed to make good faith efforts to meet its obligations under the grant/loan agreement.

(C) The municipality agrees to pay the non-state costs of the pollution abatement facilities construction associated with the project and commits itself to complete the construction of the operable pollution abatement facilities and the complete pollution abatement facilities of which the project is a part.

(2) Nondiscrimination. All contracts are subject to the Governor's Executive Order No. Three and to the guidelines and rules issued by the State Labor Commission to implement Executive Order No. Three.

(3) Wage Rates. Contracts involving construction work are subject to the appropriate state wage rates issued by the State Labor Commissioner and federal wage rates issued by the United States Department of Labor.

(4) Access. The municipality shall insure that the Commissioner and his or her duly authorized agents shall have access to the project work whenever it is in preparation or progress. The municipality shall provide proper facilities for access and inspection. The municipality shall allow any authorized agent of the state to have access to any books, documents, plans, reports, papers, and other records of the contractor which are pertinent to the project for the purpose of making audit, examination, excerpts, copies and transcriptions. The municipality shall insure that a party to a subagreement shall provide access to the project work, sites, documents, and records.

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(5) Project Changes.

(A) Minor changes in the project work that are consistent with the objectives of the project and within the scope of the funding agreement do not require the execution of a formal amendment before the municipality's implementation of the change. However, if such changes increase the costs of the project, the amount of the funding provided by the funding agreement may only be increased by a formal amendment.

(B) The municipality shall receive from the Commissioner a formal amendment before implementing changes which:

- (i) alter the project performance standards; or
- (ii) alter the type of treatment facilities provided by the project; or
- (iii) delay or accelerate the project schedule; or
- (iv) substantially alter the engineering report, design drawings and specifications, or the location, size, capacity, or quality of any major part of the project.

(6) Operation and Maintenance.

(A) The municipality shall make provisions satisfactory to the Commissioner for assuring economical and effective operation and maintenance of the pollution abatement facilities in accordance with a plan of operation approved by the Commissioner.

(B) The Commissioner shall not pay more than 50 percent of the grant share of any project unless the municipality has an approved final plan of operation and shall not pay more than 90 percent of the grant share of any project unless the municipality has an approved operation and maintenance manual.

(7) Adoption of User Charge System and Sewer Use Ordinance.

The municipality shall adopt the sewer use ordinance and implement the user charge system developed under subsections (e) and (f) of 22a-482-3 and approved by the Commissioner before the pollution abatement facilities are placed in operation. Further, the municipality shall implement the user charge system and sewer use ordinance for the useful life of the pollution abatement facilities.

(8) Value Engineering.

The municipality shall comply with the applicable requirements of section 22a-482-3 (d) for value engineering.

(9) Project Initiation and Completion.

(A) The municipality shall expeditiously initiate and complete the project in accordance with the project schedule contained in the funding agreement.

(B) The municipality shall initiate procurement action for building the project promptly after the award of financing. The Commissioner may annul or terminate the funding agreement if the municipality has not awarded the subagreements and issued a notice to proceed, where one is required, for building all significant elements of the project within twelve (12) months of the closing. Failure to promptly award all subagreement(s) for building the project shall result in a limitation on allowable grant costs.

Regulations of Connecticut State Agencies

TITLE 22a. Environmental Protection

*Department of Environmental Protection**§22a-482-4*

(10) Municipality Responsibility for Project Performance.

(A) The municipality shall select the engineer or engineering firm principally responsible for either supervising construction or providing architectural and engineering services during construction as the prime engineer to provide the following services during the first year following the initiation of operation:

- (i) direct the operation of the project and revise the operation and maintenance manual for the project as necessary to accommodate actual operating experience;
- (ii) train or provide for training of operating personnel, including the preparation of curricula and training material for operating personnel; and
- (iii) advise the municipality whether the project is capable of meeting the project performance standards.

(B) On the date one year after the initiation of operation of the project the municipality shall certify to the Commissioner whether the project is capable of meeting the project performance standards. If the project does not meet the project performance standards, the municipality shall submit the following:

- (i) a corrective action report which includes an analysis of the cause of the project's inability to meet the performance standards (including infiltration/inflow reduction) and estimates of the nature, scope and cost of the corrective action necessary to bring the project into compliance. Such corrective action report shall be prepared at other than state expense;
- (ii) the schedule for undertaking, in a timely manner, the corrective action necessary to bring the project into compliance; and
- (iii) the scheduled date for certifying to the Commissioner that the project is capable of meeting the project performance standards.

(C) Corrective action necessary to bring a project into compliance with the project performance standards shall be undertaken by the municipality at other than state expense.

(D) Nothing in this section shall be construed to prohibit a municipality from requiring more assurances, guarantees, or indemnity or other contractual requirements from any party performing project work.

(11) Final Inspection. The municipality shall notify the Commissioner of the completion of project construction and the Commissioner shall cause final inspection to be made within 60 days of receipt of the notice. When final inspection is completed and the Commissioner determines that the treatment works have been satisfactorily constructed, in accordance with the funding assistance agreement, the municipality may make a request for final payment under subdivision (s) (5) of this section.

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ADDITIONAL REQUIRED CONTRACT PROVISIONS

Construction Safety and Health Standards

It is a condition of this contract, and shall be made a condition of each subcontract entered into pursuant to this contract, that the contractor and any subcontractor shall not require any laborer or mechanic employed in performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety, as determined under construction safety and health standards (Title 29, Code of Federal Regulations, Part

1518 - published in the Federal Register on April 17, 1971) promulgated by the United States Secretary of Labor, in accordance with section 107 of the Contract Work Hours and Safety Standards Act (83 Stat. 96).

Service of Process

The successful bidder, if not a resident of the State of Connecticut, or, in the case of a partnership, the partners, if not residents, hereby appoints the Secretary of State of the State of Connecticut, and his successors in office as agent for service of process for any action arising out of or as a result of this Contract; such appointment to be in effect throughout the life of this Contract, and six (6) years thereafter.

Substitution of Securities for Retainage

The Contractor is advised of the provisions of section 3-112a of the General Statutes of the State of Connecticut, Revision of 1966, which is quoted as follows:

SECTION 3.112a. Substitution of securities for retainages on state contracts. (a) Under any contract made or awarded by the state, or by any public department or official thereof, the contractor may, from time to time withdraw the whole or any portion of the amount retained for payments to the contractor pursuant to the terms of the contract, upon depositing with the comptroller (1) United States treasury bonds, United States treasury notes, United States treasury certificates of indebtedness or United States treasury bills, or (2) bonds or notes of the state of Connecticut or (3) bonds of any political subdivision in the state of Connecticut. No amount shall be withdrawn in excess of the market value of the securities at the time of deposit or of the par value of such securities, whichever is lower. (b) The comptroller shall, on a regular basis, collect all interest or income on the obligations so deposited and shall pay the same, when and as collected, to the contractor who deposited the obligations. If the deposit is in the form of coupon bonds, the comptroller shall deliver each coupon as it matures to the contractor. (c) Any amount deducted by the state, or by any public department or official thereof, pursuant to the terms of the contract, from the retainages due the contractor, shall be deducted, first from that portion of the retainage for which no security has been substituted, then from the proceeds of any deposited security. In the latter case, the contractor shall be entitled to receive interest, coupons or income only from those securities which remain after such amount has been deducted.

Requirements for Timely Payments

The Contractor is advised of the provisions of section 49-41a of the General Statutes of the State of Connecticut, Revision of 1958, which is quoted as follows:

SECTION 49-41a Enforcement of payment by general contractor to subcontractor and by subcontractor to his subcontractors. (a) When any public work is awarded by a contract for which a payment bond is required by section 49-41, the contract for the public work shall contain the following provisions: (1) A requirement that the general contractor, within thirty days after payment to the contractor by the state or a municipality, pay any amounts due any subcontractor, whether for labor performed or for materials furnished, when the labor or materials have been included in a requisition submitted by a contractor and paid by the state or a municipality; (2) a requirement that the general contractor shall include in each of its subcontracts a provision requiring each subcontractor to 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) 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 receipt of that notice, the general contractor shall be liable to the subcontractor, and the subcontractor shall be liable to the 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.

(c) No payment may be withheld from a subcontractor for work performed because of a dispute between the general contractor and another contractor or subcontractor.

(d) 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.

Maximum Retainage Allowed

SECTION 49-41b. Release of payments on public works construction projects. When any public work is awarded by a contract for which a payment bond is required by section 49-41 and such contract contains a provision requiring the general or prime contractor under such a contract to furnish a performance bond in the full amount of the contract price, the awarding authority shall be prohibited from withholding more than five per cent from any periodic or final payment which is otherwise properly due to the general or prime contractor under the terms of such contract, and any such general or prime contractor shall be prohibited from withholding more than five per cent from any periodic or final payment which is otherwise due any subcontractor.

Nondiscrimination

The contractor agrees and warrants that in the performance of this contract he 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, sex, mental retardation, 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 in any manner prohibited by the laws of the United States or of the State of Connecticut, and further agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission concerning the employment practices and procedures of the contractors as relate to the provisions of Public Act 78-148.

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 non-compliance with said Executive Order No. Three or any state or federal law concerning nondiscrimination, notwithstanding that the Labor Commissioner is not a party to this contract. The parties to this contract as part of the consideration hereof, agree that 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 or subcontractor 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 he will not discriminate in his employment practices or policies, will file all reports as required, and will fully cooperate with the State of Connecticut and the State Labor Commissioner.

The Governor's Executive Order No. Three and the Guidelines and Rules implementing the Governor's Executive Order No. Three are included elsewhere herein.

Construction, Alteration or Repair of Public Works Projects by the State or Political Subdivision

The contractor shall comply with the provisions of Section 31-53 of the General Statutes of the State of Connecticut, Revision of 1967, a part of which is quoted as follows:

SECTION 31-53-1(a). Each contract for the construction, alteration or repair of any public works projects by the State or any of its agents, or by any political subdivision of the State or any of its agents, shall contain the following provision: "The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee welfare fund, as defined in subsection (h) of this section, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works contract work is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day."

Listing All Employment Openings With the Office of the Connecticut State Employment Service

This contract is executed subject to the Governor's

Executive Order No. 17, a copy of which is attached hereto and is hereby made a part of this Agreement. Governor's Executive Order No. 17 requires, inter alia, that all contractors and subcontractors 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. Failure of the contractor to conform with the requirements of the Governor's Executive Order No. 17 and any orders, rules or regulations issued pursuant thereto, shall be a basis for termination of this agreement by the State.

Residents Preference in Work on Other Public Facilities

The contractor shall comply with the provisions of Section 31-52a of the General Statutes of the State of Connecticut, Revision of 1967, a part of which is quoted as follows:

SECTION 31-52a-2(b). Each contract for any such project covered by this section under the supervision of the state or any of its agents shall contain the following provision: "In the employment of mechanics, laborers or workmen to perform the work specified herein, preference shall be given to residents of the state who are, and continuously for at least six months prior to the date hereof have been, residents of this state, and if no such person is available then to residents of other states."

Project Sign

The Contractor shall erect a sign at the project site identifying the project and indicating that the Connecticut Department of Environmental Protection is providing funding for the construction of the project. The sign shall be erected within 14 days after the notice to proceed has been issued, and shall be in accordance with these specifications and the enclosed project sign detail. The

sign shall be furnished, erected, and maintained by the Contractor at a location designated by the Engineer. The names of the Commissioner of Environmental Protection and the Governor of the State of Connecticut as shown on the sign shall be kept current, and shall be revised within 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 such a manner that the project sign is not obscured from public view.

The sign shall be constructed of 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.

Education, Welfare, and Public Health Tax (Sales and Use Tax)

The Contractor's attention is called to Regulation 18 as amended, promulgated by the Sales and Use Tax Division of the State Department of Revenue Services, which provided for the exemption of the sales and use tax on the purchase of such materials and supplies as are to be physically incorporated in and become a permanent part of the project being performed under this contract. The contractor may avail himself of the savings of this tax and shall take this exemption into account in calculating his bid for this work. The Contractor or Subcontractor shall furnish his suppliers with a completed certificate, in the following prescribed form:

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State and Federal Contract Provisions

State

1.0 The Contractor shall comply with the provisions of Conn. Gen. Stat. § 4a-60

1. “Public works contract” has the same meaning as provided in section 46a-68b;
2. “Awarding agency” has the same meaning as provided in section 4a-60g.

2.0 The Contractor shall comply with the provisions of Conn. Gen. Stat. § 46a-68d

- (a) In addition to the provisions of Conn. Gen. Stat. section 4a-60, each Contractor awarded a public works contract of more than one hundred fifty thousand dollars, but not subject to the provisions of section 46a-68d, or a first-tier contractor who has entered into an agreement with a Contractor subject to the provisions of section 46a-68d, that is valued at one hundred fifty thousand dollars or more, shall develop and file a good faith efforts plan with the Commission on Human Rights and Opportunities, which shall comply with the regulations adopted by the commission. Any plan filed pursuant to this section shall be filed not later than forty-five days from the date the contract or agreement is awarded. The commission may grant one fifteen-day extension for such filing to a Contractor upon the request of the Contractor.
- (b) The executive director or the executive director's designee shall review and formally approve, conditionally approve or disapprove the content of the good faith efforts plan not later than one hundred twenty days following the date of the submission of the plan to the commission. If the executive director or the executive director's designee fails to approve, conditionally approve or disapprove a plan within such one-hundred-twenty-day period, the plan shall be deemed to be either approved or deficient without consequence. If a plan is disapproved, the Contractor shall have forty-five days from the notice of disapproval to resubmit an amended plan in order to remedy the reasons for disapproval. The executive director or the executive director's designee shall have thirty days to approve or disapprove the resubmitted plan. If the executive director or the executive director's designee fails to review the resubmitted plan within such thirty-day period, the plan shall be deemed deficient without consequence. If the Contractor fails to resubmit a plan or to remedy the reasons for disapproval, the plan shall receive a final disapproval from the executive director or the executive director's designee.
- (c) Any failure to submit a plan as required by this section or receipt of a final disapproval of a plan shall constitute a discriminatory practice, as defined in

section 46a-51. Any Contractor who has received a final disapproval may request reconsideration of the disapproval according to the procedures for reconsideration set forth in subsection (h) of section 46a-83.

3.0 The Contractor shall comply with the provisions of Conn. Gen. Stat. § 46a-68e

- (a) Each Contractor shall file, and shall cause each of such Contractor's Subcontractors to file, with the commission such compliance reports at such times as the commission may direct. Compliance reports shall contain such information as to the practices, policies, programs and employment policies, employment programs, and employment statistics of the Contractor and each Subcontractor and be in such form as the commission may prescribe.
- (b) All compliance reports shall be submitted not later than forty-five days after the substantial completion of the Contract. The executive director or the executive director's designee shall have thirty days from the date of submission of a compliance report to review and formally approve or disapprove the compliance report. If the executive director or the executive director's designee fails to approve, conditionally approve or disapprove a plan within such thirty-day period, the plan shall be deemed to be either approved or deficient without consequence.
- (c) In the case of a public works contract subject to the provisions of section 46a-68d, the awarding agency shall withhold two per cent of the total contract price per month from any payment made to such Contractor until such time as the Contractor has submitted all compliance reports required by the commission and the reports have been approved by the executive director or the executive director's designee or deemed deficient without consequence.

4.0 The Contractor shall comply with the provisions of Conn. Gen. Stat. § 46a-68f

Whenever the Contractor or Subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the compliance report shall include information pertaining to such labor union's or agency's practices and policies affecting compliance, as the commission may prescribe; provided, to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency refuses to furnish information to the contractor, the Contractor shall so certify to the commission as part of its compliance report and shall set forth what efforts have been made to obtain such information.

5.0 The Contractor shall comply with the provisions of Conn. Gen. Stat. § 46a-68g.

6.0 Set-Aside. The Contractor shall (A) set aside at least twenty-five per cent of the total value of the state's financial assistance for such contract for award to subcontractors who are small contractors, and (B) of that portion to be set aside in accordance with subparagraph (A) of this subdivision, reserve a portion equivalent to twenty-five per cent of the total value of the contract or portion thereof to be set aside for awards to subcontractors who are minority business enterprises.

7.0 Non-Resident Contractor 5% Tax For Contracts. Conn. Gen. Stat. Sec. 12-430(7) requires non-resident contractors who perform services or furnish materials, or both, for the construction, alteration or improvement of any project in which the contract price is at least \$250,000, to furnish the Department of Revenue Services (DRS) a Guarantee Bond for 5% of the total cost of the work, issued under a contract using Form AU-766, Guarantee Bond. This form is available on the State DRS website. Form AU-766 must be submitted for each additional change order or supplement issued against the contract. Non-resident contractors must have completed and submitted to the DRS Form REG-1, Business Tax Registration Application, to register with the DRS and have been issued a Connecticut Tax Registration Number. This form is available on the DRS website. Non-resident contractors have 120 days from the commencement of the contract to file the Guarantee Bond with the State. Commencement of the contract, as defined by law, “means the time when the non-resident contractor signs the contract, but, in any event, occurs no later than when the work under the contract actually starts.” As soon as the guarantee bond is filed with the DRS, the non-resident contractor shall submit the copy of such Guarantee Bond together with the non-resident contractor’s Connecticut Tax Registration Number to the Town department for whom the project is required. After the non-resident contractor receives its Certificate of Compliance from the DRS confirming that the Guarantee Bond requirement has been met, the non-resident contractor shall submit a copy of the same to the department, for whom the work is being performed, with a copy to the Owner’s purchasing department.

8.0 Compliance with Immigration Laws. The Contractor, during the term of this Agreement will comply, with the Immigration Reform and Control Act (“IRCA”) and that each person it provides under the Agreement will at all times be authorized for employment in the United States of America. The Contractor confirms that it has a properly completed Employment Eligibility Verification, Form I-9, for each person who will be assigned under the Agreement and that it will require each subcontractor or consultant, if any, to confirm that it has a properly completed Form I-9 for each person who will be assigned under the Contract. The Contractor shall defend, indemnify, and hold harmless the Owner and its employees, officers, officials, agents, volunteers and independent contractors, including any of the foregoing sued as individuals (collectively, the “Town Indemnified Parties”),

against any and all proceedings, suits, actions, claims, damages, injuries, awards, judgments, losses or expenses, including fines, penalties, punitive damages, attorney's fees and costs, brought or assessed against, or incurred by, the Town Indemnified Parties related to or arising from the obligations under IRCA imposed upon the Contractor or its subcontractors/consultants. The Contractor shall also be required to pay any and all attorney's fees and costs incurred by the Town Indemnified Parties in enforcing any of the Contractor's obligations under this provision, whether or not a lawsuit or other proceeding is commenced, which obligations shall survive the termination or expiration of the Agreement

Federal

9.0 Equal Opportunity

The Owner is an Equal Opportunity Employer. As such, the Owner and all Contractors and their Subcontractors agree to prohibit discrimination based on race, color, religion, sex, sexual orientation, gender identity, or national origin, and comply with all applicable Federal civil rights laws and implementing regulations.

During the performance of this Contract, the Contractor shall at all times comply with the following requirements and shall include these requirements in each subcontract entered into as part thereof:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

3. The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
4. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The Contractor further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the Contractor so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in Work on or under the Contract.

The Contractor agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

10.0 Rights to Inventions Made Under a Contract or Agreement

For any federally assisted contract awarded to a small business firm or nonprofit organization as defined in 37 CFR 401.2 for the performance of experimental, developmental, or research work, the Contractor, subcontractor, and subrecipient agree to all of the terms in 37 CFR 401.14(a) and (b) regarding Patent Rights and The Allocation of Principal Rights.

11.0 Increasing Seat Belt Use in the United States

Pursuant to Executive Order 13043, 62 FR 19217 (Apr. 18, 1997), Contractor is encouraged to adopt and enforce on-the-job seat belt policies and programs for your employees when operating company-owned, rented or personally owned vehicles.

12.0 Reducing Text Messaging While Driving

Pursuant to Executive Order 13513, 74 FR 51225 (Oct. 6, 2009), Contractor is encouraged to adopt and enforce policies that ban text messaging while driving, and establish workplace safety policies to decrease accidents caused by distracted drivers.

13.0 Publications

Any publications produced with funds from this award must display the following language: "This project [is being] [was] supported, in whole or in part, by federal award number [enter project FAIN] awarded to [the Town of Putnam, CT] by the U.S. Department of the Treasury."

Contractor's Exempt Purchase Certificate

General Purpose: Contractors for the repair, alteration, improvement, remodeling, or construction of real property use this certificate to purchase materials and supplies to be installed or placed in a project being performed under contract with an exempt entity. The materials and supplies, including tangible personal property that remains tangible personal property after its installation or placement, must remain in the project after its completion. If the tangible personal property is not used in the manner described above, a contractor who claimed an exemption owes use tax on the total price of the tangible personal property.

Wherever the term contractor is used in this certificate, it includes subcontractors of the contractor performing a contract with an exempt entity.

Exempt entity means any person entitled to make purchases of tangible personal property exempt from sales and use taxes under the statutory authority listed in the instructions.

Name of exempt entity	Address	CT Tax Registration Number (If none, explain.)	Federal Employer ID Number
Address of project			
Type of exempt entity (See instructions.) ☐ Connecticut state government: Enter the exemption number. _____ ☐ Charitable or religious organization: Enter the exemption number if any. _____ ☐ Other (Explain.) _____			
☐ Connecticut municipality ☐ Federal government			
Name of purchaser	Address	CT Tax Registration Number (If none, explain.)	Federal Employer ID Number
Name of seller	Address	CT Tax Registration Number (If none, explain.)	Federal Employer ID Number
Provide a written description of each item purchased. Attach additional sheets if necessary.			
Check one box: ☐ Blanket certificate ☐ Certificate for one purchase only			

Declaration by Purchaser: The item(s) described above are tangible personal property to be installed or placed in a project being performed under contract with the exempt entity identified above and will remain in the project after its completion. I declare that the purchaser named above is a contractor under contract with the exempt entity or a subcontractor of the contractor. I acknowledge that the purchaser will be liable for Connecticut use tax, plus applicable penalty and interest as of the date of purchase, on the total purchase price of the property if any of the requirements for the exemption are not present or are not met.

I declare under penalty of law that I have examined this document (including any accompanying schedules and statements) and, to the best of my knowledge and belief, it is true, complete, and correct. I understand the penalty for willfully delivering a false return or document to the Department of Revenue Services (DRS) is a fine of not more than \$5,000 or imprisonment for not more than five years, or both.

Name of purchaser

By: _____
Authorized signature Title 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 DRS 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.

NON-COLLUSIVE AFFIDAVIT OF BIDDERS

BID# 4043 - _____

State of (_____);

County of (_____).

I state that I am the _____ of _____
(title) (name of firm)

and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this Bid.

I certify that:

(1) The price and amount on this Bid has been arrived at independently and without consultation, communication, or agreement with any other bidder.

(2) Neither the price(s) nor the amount of this Bid and approximate price(s) nor approximate amount of this Bid has been disclosed to any other firm or person who is a Bidder and that no disclosure of these items will be made prior to the Bid opening.

(3) No attempt has been or will be made to induce any firm or person to refrain from proposing on this Bid, or to submit a Bid higher than this Bid, or to submit any intentionally higher or non-competitive Bid.

(4) Neither the said Bidder nor any of its officers, partners, owners, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from Bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of New Britain, owner, or any person interested in the proposed Contract.

(5) The Bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other non-competitive proposal.

(6) I state that _____ understands and acknowledges that all
(name of my firm)

representations of this affidavit are material and important, and will be relied on by the City of New Britain in awarding a contract for which this is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the City of New Britain of the true facts relating to the submission of Bids for this contract. That the City of New Britain also reserves the right to reject our Bid if failure to complete this document, have it notarized and submitted with our Bid documents.

The undersigned Bidder further certifies that this statement is executed for the purpose of including the City of New Britain to consider the Bid and make an award in accordance therewith.

Subscribe and Sworn to me this

_____ day of _____,
2021

Notary Public
My Commission Expires

Legal Name of Bidder

Business Address

Signature and Title of Person

Date
NCAF-1

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can be secured from Labor Dept. Ext. 4388
STATE OF CONNECTICUT

BY HIS EXCELLENCY

THOMAS J. MESKILL

GOVERNOR

EXECUTIVE ORDER NO. THREE

WHEREAS, sections 4-61d(b) and 4-114a of the 1959 supplement to the general statutes require nondiscrimination clauses in state contracts and subcontracts for construction on public buildings, other public works and goods and services, and

WHEREAS, section 4-61e(c) of the 1959 supplement to the general statutes requires the labor department to encourage and enforce compliance with this policy by both employers and labor unions, and to promote equal employment opportunities, and

WHEREAS, the government of this state recognizes the duty and desirability of its leadership in providing equal employment opportunity, by implementing these laws,

NOW, THEREFORE, I, THOMAS J. MESKILL, Governor of the State of Connecticut, acting by virtue of the authority vested in me under section twelve of article fourth of the constitution of the state, as supplemented by 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 adopt such regulations as he deems necessary and appropriate to achieve the purposes

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of this Order. Upon the 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 or state or federal laws concerning nondiscrimination, notwithstanding that the labor commissioner is not a party to such contract or subcontract.

II

Each contractor having a contract containing the provisions prescribed in section 4-114a of the 1969 supplement to the general statutes, shall file, and shall cause each of his subcontractors to file, compliance reports with the contracting agency or the labor commissioner, as may be directed. Such reports shall be filed within such times and shall contain such information as to employment policies and statistics of the contractor and each subcontractor, and shall be in such form as the labor commissioner may prescribe. Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this Order or any preceding similar Order, and in that event to submit on behalf of themselves and their proposed subcontractors compliance reports prior to or as an initial part of their bid or negotiation of a contract.

III

Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor organization or employment agency as

defined in section 31-122 of the general statutes, the compliance report shall identify the said organization or agency and the contracting agency or the labor commissioner may require a compliance report to be filed with the contracting agency or the labor commissioner, as may be directed, by such organization or agency, signed by an authorized officer or agent of such organization or agency, with supporting information, to the effect that the signer's practices and policies, including but not limited to matters concerning personnel, training, apprenticeship, membership, grievance and representation, and up- grading, do not discriminate on grounds of race, color, religious creed, age, sex or national origin, or ancestry of any individual, and that the signer will either affirmatively cooperate in the implementation of the policy and provisions of this Order, or that it consents and agrees that recruitment, employment and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and provisions of the Order.

IV

The labor commissioner may by regulation exempt certain classes of contracts, subcontracts or purchase orders from the implementation of this Order, for standard commercial supplies or raw materials, for less than specified amounts of money or numbers of workers or for subcontractors below a specified tier. The labor commissioner may also provide by regulation for the exemption of facilities of a contractor which are in all respects separate and distinct from activities of the contractor related to the performance of the state contract, provided only that such exemption will not interfere with or impede the implementation of this Order, and provided further, that in the absence of such an exemption, all facilities shall be covered by the provisions of this Order.

V

Each contracting agency shall be primarily responsible for obtaining compliance with the regulations of the labor commissioner with respect to contracts entered into by such agency or its contractors. All contracting agencies shall comply with the regulations of the labor commissioner in discharging their primary responsibility for securing compliance with the provisions of contracts and otherwise with the terms of this Order and of the regulations of the labor commissioner issued pursuant to this Order. They are directed to cooperate with the labor commissioner and to furnish the labor commissioner such information and assistance as he may require in the performance of his functions under this Order. They are further directed to appoint or designate from among the personnel of each agency, compliance officers, whose duty shall be to seek compliance with the objectives of this Order by conference, conciliation, mediation, or persuasion.

VI

The labor commissioner may investigate the employment practices and procedures of any state contractor or subcontractor and the practices and policies of any labor organization or employment agency hereinabove described, relating to employment under the state contract, as concerns nondiscrimination by such organization or agency as hereinabove described, or the labor commissioner may initiate such investigation by the appropriate contract agency, to determine whether or not the contractual provisions hereinabove specified or statutes of the state respecting them have been violated. Such investigation shall be conducted in accordance with the procedures established by the labor commissioner and the investigating agency shall report to the labor commissioner any action taken or recommended.

VII

The labor commissioner shall receive and investigate or cause to be investigated complaints by employees or prospective employees of a state contractor or subcontractor or members or applicants for membership or apprenticeship or training in a labor organization or employment agency hereinabove described, which allege discrimination contrary to the contractual provisions specified hereinabove or state statutes requiring nondiscrimination in employment opportunity. If this investigation is conducted for the labor commissioner by a contracting agency, that agency shall report to the labor commissioner what action has been taken or is recommended with regard to such complaints.

VIII

The labor commissioner shall use his best efforts, directly and through contracting agencies, other interested federal, state and local agencies, contractors and all other available instrumentalities, including the commission on human rights and opportunities, the executive committee on human rights and opportunities, and the apprenticeship council under its mandate to provide advice and counsel to the labor commissioner in providing equal employment opportunities to all apprentices and to provide training, employment and upgrading opportunities for disadvantaged workers, in accordance with section 31-51(d) of the 1969 supplement to the general statutes, to cause any labor organization or any employment agency whose members are engaged in work under government contracts or referring workers or providing or supervising apprenticeship or training for or in the course of work under a state contract or subcontract to cooperate in the implementation of the purposes of this Order. The labor commissioner shall in appropriate

cases notify the commission on human rights and opportunities or other appropriate state or federal agencies whenever it has reason to believe that the practices of any such organization or agency violate equal employment opportunity requirements of state or federal law.

IX

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.

X

(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. No order for disbarment of any contractor from further state contracts shall be made without affording the contractor an opportunity for a hearing. In accordance with such regulations as the labor commissioner may adopt, the commissioner or the appropriate contracting agency may

(1) Publish or cause to be published the names of contractors or labor organizations or employment agencies as hereinabove described which it has concluded have complied or failed to comply with the provisions of this Order or the regulations of the labor commissioner in implementing this Order.

(2) Recommend to the commission on human

rights and opportunities that in cases in which there is substantial or material violation or threat thereof of the contractual provision or related state statutes concerned herein, appropriate proceedings be brought to enforce them, including proceedings by the commission on its own motion under chapter 563 of the general statutes and the enjoining, within the limitations of applicable law, of organizations, individuals or groups who prevent directly or indirectly or seek to prevent directly or indirectly compliance with the provisions of this Order.

- (3) Recommend that criminal proceedings be brought under chapter 939 of the general statutes.
- (4) Cancel, terminate, suspend or cause to be cancelled, terminated, or suspended in accordance with law any contract or any portion or portions thereof for failure of the contractor or subcontractor to comply with the nondiscrimination 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.
- (5) Provide that any contracting agency shall refrain from entering into any further

contracts or extensions or modifications of existing contracts with any contractor until he has satisfied the labor commissioner that he has established and will carry out personnel and employment policies compliant with this Order.

- (6) Under regulations prescribed by the labor commissioner each contracting agency shall make reasonable efforts within a reasonable period of time to secure compliance with the contract provisions of this Order by methods of conference, conciliation, mediation or persuasion, before other proceedings shall be instituted under this Order or before a state contract shall be cancelled or terminated in whole or in part for failure of the contractor or subcontractor to comply with the contract provisions of state statute and this Order.

(b) Any contracting agency taking any action authorized by this Order, whether on its own motion or as directed by the labor commissioner or pursuant to his regulations 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 and other interested federal, state and local agencies of the action recommended. The state and local agency or agencies shall take such action and shall report the results thereof to the labor commissioner within such time as he shall specify.

XI

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, or submits a program for compliance acceptable to the labor commissioner, or if the labor commissioner so authorizes, to the contracting agency.

XII

Whenever a contracting agency cancels or terminates a contract, or a contractor has been disbarred from further government contracts because of noncompliance with the contract provisions with regard to nondiscrimination, the labor commissioner or the contracting agency shall rescind such disbarment, upon the satisfaction of the labor commissioner that the contractor has purged himself of such noncompliance and will thenceforth carry out personnel and employment policies of nondiscrimination in compliance with the provision of this Order.

XIII

The labor commissioner may delegate to any officer, agency or employee in the executive branch any function or duty of the labor commissioner under this Order except authority to promulgate regulations of a general nature.

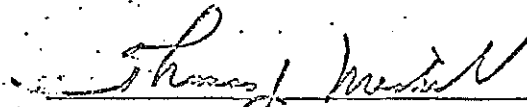
XIV

This Executive Order supplements the Executive Order issued on September 28, 1967. All regulations, orders, instructions, designations and other directives issued heretofore in these premises, including those issued by the heads of various departments or agencies under or pursuant to prior order or statute, shall remain in full force and effect,

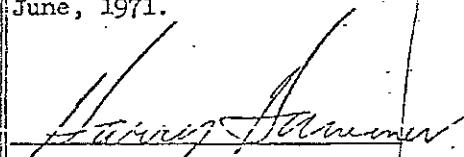
unless and until revoked or superseded by appropriate authority, to the extent that they are not inconsistent with this Order.

This Order shall become effective thirty days after the date of this Order.

Dated at Hartford, Connecticut, this 16th day of June, 1971.


GOVERNOR

Filed this 16th day of June, 1971.


SECRETARY OF THE STATE



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

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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 organization 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 this 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

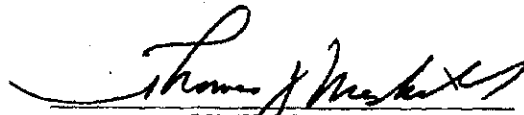
shall report the results to the Labor Commissioner promptly.

VIII

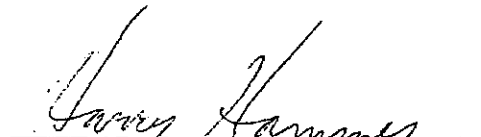
If the Labor Commissioner shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless he has satisfactorily complied with the provisions of this Order.

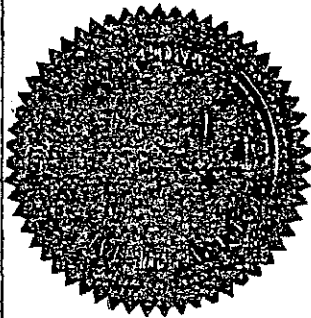
This Order shall become effective sixty days after the date of this Order.

Dated at Hartford, Connecticut, this 15th day of February, 1973.


GOVERNOR

Filed this 15th day of February, 1973.


SECRETARY OF THE STATE (DEPUTY)



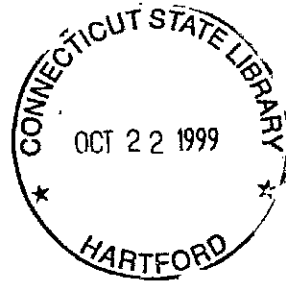
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State of Connecticut by His Excellency

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.

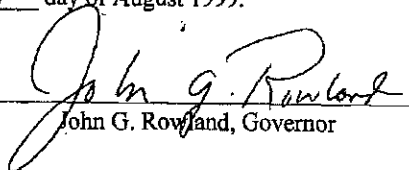
2. That each agency must prominently post this policy and that all managers and supervisors must clearly communicate this policy to all state employees.

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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



Executive Orders

Executive Order 12549--Debarment and suspension

Source: The provisions of Executive Order 12549 of Feb. 18, 1986, appear at 51 FR 6370, 3 CFR, 1986 Comp., p. 189, unless otherwise noted.

By the authority vested in me as President by the Constitution and laws of the United States of America, and in order to curb fraud, waste, and abuse in Federal programs, increase agency accountability, and ensure consistency among agency regulations concerning debarment and suspension of participants in Federal programs, it is hereby ordered that:

Section 1. (a) To the extent permitted by law and subject to the limitations in Section 1(c), Executive departments and agencies shall participate in a system for debarment and suspension from programs and activities involving Federal financial and nonfinancial assistance and benefits. Debarment or suspension of a participant in a program by one agency shall have government-wide effect.

(b) Activities covered by this Order include but are not limited to: grants, cooperative agreements, contracts of assistance, loans, and loan guarantees.

(c) This Order does not cover procurement programs and activities, direct Federal statutory entitlements or mandatory awards, direct awards to foreign governments or public international organizations, benefits to an individual as a personal entitlement, or Federal employment.

Sec. 2. To the extent permitted by law, Executive departments and agencies shall:

(a) Follow government-wide criteria and government-wide minimum due process procedures when they act to debar or suspend participants in affected programs.

(b) Send to the agency designated pursuant to Section 5 identifying information concerning debarred and suspended participants in affected programs, participants who have agreed to exclusion from participation, and participants declared ineligible under applicable law, including Executive Orders. This information shall be included in the list to be maintained pursuant to Section 5.

(c) Not allow a party to participate in any affected program if any Executive department or agency has debarred, suspended, or otherwise excluded (to the extent specified in the exclusion agreement) that party from participation in an affected program. An agency may grant an exception permitting a debarred, suspended, or excluded party to participate in a

particular transaction upon a written determination by the agency head or authorized designee stating the reason(s) for deviating from this Presidential policy. However, I intend that exceptions to this policy should be granted only infrequently.

Sec. 3. Executive departments and agencies shall issue regulations governing their implementation of this Order that shall be consistent with the guidelines issued under Section 6. Proposed regulations shall be submitted to the Office of Management and Budget for review within four months of the date of the guidelines issued under Section 6. The Director of the Office of Management and Budget may return for reconsideration proposed regulations that the Director believes are inconsistent with the guidelines. Final regulations shall be published within twelve months of the date of the guidelines.

Sec. 4. There is hereby constituted the Interagency Committee on Debarment and Suspension, which shall monitor implementation of this Order. The Committee shall consist of representatives of agencies designated by the Director of the Office of Management and Budget.

Sec. 5. The Director of the Office of Management and Budget shall designate a Federal agency to perform the following functions: maintain a current list of all individuals and organizations excluded from program participation under this Order, periodically distribute the list to Federal agencies, and study the feasibility of automating the list; coordinate with the lead agency responsible for government-wide debarment and suspension of contractors; chair the Interagency Committee established by Section 4; and report periodically to the Director on implementation of this Order, with the first report due within two years of the date of the Order.

Sec. 6. The Director of the Office of Management and Budget is authorized to issue guidelines to Executive departments and agencies that govern which programs and activities are covered by this Order, prescribe government-wide criteria and government-wide minimum due process procedures, and set forth other related details for the effective administration of the guidelines.

Sec. 7. The Director of the Office of Management and Budget shall report to the President within three years of the date of this Order on Federal agency compliance with the Order, including the number of exceptions made under Section 2(c), and shall make recommendations as are appropriate further to curb fraud, waste, and abuse.

Sec. 4a-60. (Formerly Sec. 4-114a). Nondiscrimination and affirmative action provisions in awarding agency, municipal public works and quasi-public agency project contracts. (a) Except as provided in section [10a-151i](#), every contract to which an awarding agency is a party, every quasi-public agency project contract and every municipal public works contract shall contain the following provisions:

(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, status as a veteran, status as a victim of domestic violence, 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, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to ensure 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, status as a veteran, status as a victim of domestic violence, 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;

(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 on Human Rights and Opportunities;

(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 on Human Rights and Opportunities 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 sections [46a-68e](#) and [46a-68f](#) and with each regulation or relevant order issued by said commission pursuant to sections [46a-56](#), [46a-68e](#), [46a-68f](#) and [46a-86](#); and

(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 relate to the provisions of this section and section [46a-56](#).

(b) If the contract is a public works contract, municipal public works contract or contract for a quasi-public agency project, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works or quasi-public agency project.

(c) Except as provided in section [10a-151i](#):

(1) Any contractor who has one or more contracts with an awarding agency or who is a party to a municipal public works contract or a contract for a quasi-public agency project shall include a nondiscrimination affirmation provision certifying that the contractor understands the obligations of this section and will maintain a policy for the duration of the contract to assure that the contract will be performed in compliance with the nondiscrimination requirements of subsection (a) of this section. The authorized signatory of the contract shall demonstrate his or her understanding of this obligation by (A) initialing the nondiscrimination affirmation provision in the body of the contract, (B) providing an affirmative response in the required online bid or response to a proposal question which asks if the contractor understands its obligations, or (C) signing the contract.

(2) No awarding agency, or in the case of a municipal public works contract, no municipality, or in the case of a quasi-public agency project contract, no entity, shall award a contract to a contractor that has not included the nondiscrimination affirmation provision in the contract and demonstrated its understanding of such provision as required under subdivision (1) of this subsection.

(d) For the purposes of this section, “contract” includes any extension or modification of the contract, “contractor” includes any successors or assigns of the contractor, “marital status” means being single, married as recognized by the state of Connecticut, widowed, separated or divorced, and “mental disability” means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association’s “Diagnostic and Statistical Manual of Mental Disorders”, or a record of or regarding a person as having one or more such disorders. For the purposes of this section, “contract” does not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state, as defined in section [1-267](#), (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in subdivision (1), (2), (3) or (4) of this subsection.

(e) For the purposes of this section, “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 section [32-9n](#); and “good faith” means that 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.

(f) 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 on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.

(g) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission on Human Rights and Opportunities, of its good faith efforts.

(h) The contractor shall include the provisions of subsections (a) and (b) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state, and in every subcontract entered into in order to fulfill any obligation of a municipal 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 section [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.

(February, 1965, P.A. 366, S. 1; 1967, P.A. 284; P.A. 73-279, S. 13; P.A. 74-68; P.A. 76-8; P.A. 78-148, S. 8; P.A. 82-358, S. 7, 10; P.A. 83-569, S. 8, 17; P.A. 84-412, S. 3, 8; 84-418; P.A. 88-351, S. 2, 16; P.A. 89-253, S. 2, 7; P.A. 07-142, S. 9; P.A. 09-158, S. 1; P.A. 11-55, S. 3; 11-129, S. 20; 11-229, S. 3; June Sp. Sess. P.A. 15-5, S. 63; P.A. 17-130, S. 7; P.A. 18-75, S. 2; P.A. 21-76, S. 6; P.A. 22-40, S. 5; P.A. 24-108, S. 1.)

History: 1967 act included contractor's agreement to supply information to civil rights commission; P.A. 73-279 prohibited discrimination on grounds of physical disability; P.A. 74-68 prohibited discrimination on grounds of sex; P.A. 76-8 replaced "religion" with "religious creed" and prohibited discrimination on grounds of age and marital status; P.A. 78-148 prohibited discrimination on grounds of mental retardation; P.A. 82-358 required that contractors for public works projects make good faith effort to employ minority enterprises as subcontractors and materials suppliers; P.A. 83-569 amended section to refer to Sec. 46a-56; P.A. 84-412 applied provisions to political subdivisions of the state other than a municipality and defined "minority business enterprise"; P.A. 84-418 added Subsecs. (b) to (e), inclusive, concerning determination of good faith and adoption of regulations; P.A. 88-351 revised section, substituting "provisions" for "clause", adding "ancestry" adding provisions re affirmative action requirements and deleting former Subsec. (e) re regulations and added new Subsec. (e) re applicability of affirmative action requirements to subcontractors, vendors or manufacturers and involvement of state in litigation or negotiation involving contractor, effective April 1, 1989; Sec. 4-114a transferred to Sec. 4a-60 in 1989; P.A. 89-253 amended Subsec. (a) by moving provision re public works contracts to end of subsection, and changed references to Secs. 4a-62, 32-9e, 46a-56 and 46a-68b to 46a-68k to Sec. 46a-68e and 46a-68f, and amended Subsec. (e) by changing references to this section and Secs. 4a-62, 32-9e, 46a-56 and 46a-68b to 46a-68k, inclusive, to Sec. 46a-56; P.A. 07-142 amended Subsec. (a) by adding provisions re contractor documentation supporting nondiscrimination agreement and warranty and defining "contract" and "contractor", effective June 25, 2007; P.A. 09-158 inserted "mental disability" in Subsec. (a)(1), inserted Subsec. designators (b), (c) and (d) in existing Subsec. (a), amended said Subsec. (c) to insert Subdiv. designators (1) and (2), amended Subsec. (c)(1) to establish representations for contracts of less than \$50,000 for each year, amended Subsec. (c)(2) requirements for documentation for contracts of \$50,000 or more for any year, amended said Subsec. (d) to define "marital status" and "mental disability" and exclude certain contracts from applicability of section, redesignated existing Subsecs. (b) to (e) as Subsecs. (e) to (h), and made technical changes, effective June 30, 2009; P.A. 11-55 amended Subsec. (a)(1) to prohibit discrimination on grounds of gender identity or expression; pursuant to P.A. 11-129, "mental retardation" was changed editorially by the Revisors to "intellectual disability" in Subsec. (a)(1); P.A. 11-229 amended Subsec. (c)(1) to substitute "Any contractor who has one or more contracts with the state or a political subdivision of the state that is" for "Prior to entering into a contract", to add reference to electronic representation and to require an updated representation no later than 30 days after any change, amended Subsec. (c)(2) to substitute "Any contractor who has one or more contracts with the state or a political subdivision of the state that is" for "Prior to entering into a contract" and added Subsec. (c)(3) re submission of representation or documentation; June Sp. Sess. P.A. 15-5 amended Subsecs. (a) and (c) by replacing references to the state or political subdivision of the state with references to awarding agency, amended Subsecs. (a)(2), (a)(3) and (f) to (h) by changing "commission" to "Commission on Human Rights and Opportunities", amended Subsec. (a)(4) by adding reference to Sec. 46a-86, amended Subsecs. (a) to (d) and (h) by adding references to municipal public works contracts and quasi-public agency project contracts, amended Subsec. (c) by adding references to commission re provision of representation or documentation, amended Subsec. (d) by deleting former Subdiv. (2) re quasi-public agency and redesignating existing Subdivs. (3) to (6) as Subdivs. (2) to (5), and made technical and conforming changes throughout; P.A. 17-130 amended Subsecs. (a) and (c) to add "Except as provided in section 10a-151i", effective July 1, 2017; P.A. 18-75 amended Subsec. (a)(1) by adding "status as a veteran" and making a technical change, effective July 1, 2018; P.A. 21-76 amended Subsec. (c) by deleting provision re representation requirements for contracts valued less than \$50,000 per year, adding provision re nondiscrimination affirmation provision in contract and adding Subparas. (A) and (B) re signatory demonstrating understanding in Subdiv. (1), deleting former Subdiv. (2) re documentation requirements for contracts valued at \$50,000 or more, redesignating existing Subdiv. (3) as Subdiv. (2) and amending same by making technical and conforming changes, and deleting provisions re resubmittal and certification after initial submission of representation or documentation, effective July 1, 2021; P.A. 22-40 amended Subsec. (c)(1) by adding Subpara. (C) re signing the contract and making conforming changes, effective July 1, 2022; P.A. 24-108 amended Subsec. (a)(1) by adding "status as a victim of domestic violence", effective July 1, 2024.

See Sec. 1-1f for definitions of "blind" and "physically disabled".

See Sec. 1-1g for definition of “intellectual disability”.

See Sec. 46a-68b for definition of “public works contract”.

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Sec. 4a-60a. Provisions re nondiscrimination on the basis of sexual orientation required in awarding agency, municipal public works and quasi-public agency project contracts. (a) Except as provided in section [10a-151i](#), every contract to which an awarding agency is a party, every contract for a quasi-public agency project and every municipal public works contract shall contain the following provisions:

- (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 sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation;**
- (2) 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 on Human Rights and Opportunities 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;**
- (3) The contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section [46a-56](#); and**
- (4) 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 which relate to the provisions of this section and section [46a-56](#).**

(b) Except as provided in section [10a-151i](#):

- (1) Any contractor who has one or more contracts with an awarding agency or who is a party to a municipal public works contract or a contract for a quasi-public agency project shall include a nondiscrimination affirmation provision in the contract certifying that the contractor understands the obligations of this section and will maintain a policy for the duration of the contract to assure that the contract will be performed in conformance with the nondiscrimination requirements of this section. The authorized signatory of the contract shall demonstrate his or her understanding of this obligation by either (A) initialing the nondiscrimination affirmation provision in the body of the contract, (B) providing an affirmative response in the required online bid or response to a proposal question which asks if the contractor understands its obligations, or (C) signing the contract.**
- (2) No awarding agency, or in the case of a municipal public works contract, no municipality, or in the case of a quasi-public agency project contract, no entity, shall award a contract to a contractor who has not included the nondiscrimination affirmation provision in the contract and demonstrated its understanding of such provision as required under subdivision (1) of this subsection.**

(c) For the purposes of this section, “contract” includes any extension or modification of the contract, and “contractor” includes any successors or assigns of the contractor. For the purposes of this section, “contract” does not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state, as defined in section [1-267](#), (3) the federal

Sec. 4a-60. (Formerly Sec. 4-114a). Nondiscrimination and affirmative action provisions in awarding agency contracts. (a) As used in this section:

(1) “Contract” includes any extension or modification of the contract, but does not include a contract where each contractor is (A) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a public works contract, (B) any other state, as defined in section 1-267, (C) the federal government, (D) a foreign government, or (E) an agency of a subdivision, state or government described in subparagraph (A), (B), (C) or (D) of this subdivision;

(2) “Contractor” includes any successors or assigns of the contractor;

(3) “Public works contract” has the same meaning as provided in section 46a-68b;

(4) “Marital status” means being single, married as recognized by the state of Connecticut, widowed, separated or divorced;

(5) “Mental disability” means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's “Diagnostic and Statistical Manual of Mental Disorders”, or a record of or regarding a person as having one or more such disorders;

(6) “Minority business enterprise” has the same meaning as provided in section 4a-60g;

(7) “Good faith” means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations;

(8) “Good faith efforts” includes, but is not 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; and

(9) “Awarding agency” has the same meaning as provided in section 4a-60g.

(b) Except as provided in section 10a-151i, every contract to which an awarding agency is a party shall contain the following provisions:

(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, sexual orientation, gender identity or expression, status as a veteran, status as a victim of domestic violence, status as a victim of sexual assault or status as a victim of trafficking in persons, 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, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to ensure 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, sexual orientation, gender identity or expression, status as a veteran, status as a victim of domestic violence, status as a victim of sexual assault or status as a victim of trafficking in persons, 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;

(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 on Human Rights and Opportunities;

(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 on Human Rights and Opportunities 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 sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e, 46a-68f and 46a-86; and

(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 relate to the provisions of this section and section 46a-56.

(c) If the contract is a public works contract, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project.

(d) Except as provided in section 10a-151i:

(1) Any contractor who has one or more contracts with an awarding agency or who is a party to a public works contract shall include a nondiscrimination affirmation provision certifying that the contractor understands the obligations of this section and will maintain a policy for the duration of the contract to assure that the contract will be performed in compliance with the nondiscrimination requirements of subsection (b) of this section. The authorized signatory of the contract shall demonstrate his or her understanding of this obligation by (A) initialing the nondiscrimination affirmation provision in the body of the contract, (B) providing an affirmative response in the required online bid or response to a proposal question which asks if the contractor understands its obligations, or (C) signing the contract.

(2) No awarding agency shall award a contract to a contractor that has not included the nondiscrimination affirmation provision in the contract and demonstrated its understanding of such provision as required under subdivision (1) of this subsection.

(e) 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; the timing and value of bids; 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 public works projects.

(f) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission on Human Rights and Opportunities, of its good faith efforts.

(g) The contractor shall include the provisions of subsections (b) and (c) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state, and in every subcontract entered into in order to fulfill any obligation of a public works contract, 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 section 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.

(h) The commission may adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of this section.

(February, 1965, P.A. 366, S. 1; 1967, P.A. 284; P.A. 73-279, S. 13; P.A. 74-68; P.A. 76-8; P.A. 78-148, S. 8; P.A. 82-358, S. 7, 10; P.A. 83-569, S. 8, 17; P.A. 84-412, S. 3, 8; 84-418; P.A. 88-351, S. 2, 16; P.A. 89-253, S. 2, 7; P.A. 07-142, S. 9; P.A. 09-158, S. 1; P.A. 11-55, S. 3; 11-129, S. 20; 11-229, S. 3; June Sp. Sess. P.A. 15-5, S. 63; P.A. 17-130, S. 7; P.A. 18-75, S. 2; P.A. 21-76, S. 6; P.A. 22-40, S. 5; P.A. 24-108, S. 1; P.A. 25-139, S. 15; 25-168, S. 199.)

History: 1967 act included contractor's agreement to supply information to civil rights commission; P.A. 73-279 prohibited discrimination on grounds of physical disability; P.A. 74-68 prohibited discrimination

on grounds of sex; P.A. 76-8 replaced “religion” with “religious creed” and prohibited discrimination on grounds of age and marital status; P.A. 78-148 prohibited discrimination on grounds of mental retardation; P.A. 82-358 required that contractors for public works projects make good faith effort to employ minority enterprises as subcontractors and materials suppliers; P.A. 83-569 amended section to refer to Sec. 46a-56; P.A. 84-412 applied provisions to political subdivisions of the state other than a municipality and defined “minority business enterprise”; P.A. 84-418 added Subsecs. (b) to (e), inclusive, concerning determination of good faith and adoption of regulations; P.A. 88-351 revised section, substituting “provisions” for “clause”, adding “ancestry” adding provisions re affirmative action requirements and deleting former Subsec. (e) re regulations and added new Subsec. (e) re applicability of affirmative action requirements to subcontractors, vendors or manufacturers and involvement of state in litigation or negotiation involving contractor, effective April 1, 1989; Sec. 4-114a transferred to Sec. 4a-60 in 1989; P.A. 89-253 amended Subsec. (a) by moving provision re public works contracts to end of subsection, and changed references to Secs. 4a-62, 32-9e, 46a-56 and 46a-68b to 46a-68k to Sec. 46a-68e and 46a-68f, and amended Subsec. (e) by changing references to this section and Secs. 4a-62, 32-9e, 46a-56 and 46a-68b to 46a-68k, inclusive, to Sec. 46a-56; P.A. 07-142 amended Subsec. (a) by adding provisions re contractor documentation supporting nondiscrimination agreement and warranty and defining “contract” and “contractor”, effective June 25, 2007; P.A. 09-158 inserted “mental disability” in Subsec. (a)(1), inserted Subsec. designators (b), (c) and (d) in existing Subsec. (a), amended said Subsec. (c) to insert Subdiv. designators (1) and (2), amended Subsec. (c)(1) to establish representations for contracts of less than \$50,000 for each year, amended Subsec. (c)(2) requirements for documentation for contracts of \$50,000 or more for any year, amended said Subsec. (d) to define “marital status” and “mental disability” and exclude certain contracts from applicability of section, redesignated existing Subsecs. (b) to (e) as Subsecs. (e) to (h), and made technical changes, effective June 30, 2009; P.A. 11-55 amended Subsec. (a)(1) to prohibit discrimination on grounds of gender identity or expression; pursuant to P.A. 11-129, “mental retardation” was changed editorially by the Revisors to “intellectual disability” in Subsec. (a)(1); P.A. 11-229 amended Subsec. (c)(1) to substitute “Any contractor who has one or more contracts with the state or a political subdivision of the state that is” for “Prior to entering into a contract”, to add reference to electronic representation and to require an updated representation no later than 30 days after any change, amended Subsec. (c)(2) to substitute “Any contractor who has one or more contracts with the state or a political subdivision of the state that is” for “Prior to entering into a contract” and added Subsec. (c)(3) re submission of representation or documentation; June Sp. Sess. P.A. 15-5 amended Subsecs. (a) and (c) by replacing references to the state or political subdivision of the state with references to awarding agency, amended Subsecs. (a)(2), (a)(3) and (f) to (h) by changing “commission” to “Commission on Human Rights and Opportunities”, amended Subsec. (a)(4) by adding reference to Sec. 46a-86, amended Subsecs. (a) to (d) and (h) by adding references to municipal public works contracts and quasi-public agency project contracts, amended Subsec. (c) by adding references to commission re provision of representation or documentation, amended Subsec. (d) by deleting former Subdiv. (2) re quasi-public agency and redesignating existing Subdivs. (3) to (6) as Subdivs. (2) to (5), and made technical and conforming changes throughout; P.A. 17-130 amended Subsecs. (a) and (c) to add “Except as provided in section 10a-151i”, effective July 1, 2017; P.A. 18-75 amended Subsec. (a)(1) by adding “status as a veteran” and making a technical change, effective July 1, 2018; P.A. 21-76 amended Subsec. (c) by deleting provision re representation requirements for contracts valued less than \$50,000 per year, adding provision re nondiscrimination affirmation provision in contract and adding Subparas. (A) and (B) re signatory demonstrating understanding in Subdiv. (1), deleting former Subdiv. (2) re documentation requirements for contracts valued at \$50,000 or more, redesignating existing Subdiv. (3) as Subdiv. (2) and amending same by making technical and conforming changes, and deleting provisions re resubmittal and certification after initial submission of representation or documentation, effective July 1, 2021; P.A. 22-40 amended Subsec. (c)(1) by adding Subpara. (C) re signing the contract and making conforming changes, effective July 1, 2022; P.A. 24-108 amended Subsec. (a)(1) by adding “status as a victim of domestic violence”, effective July 1, 2024; P.A. 25-139 amended Subsec. (a)(1) by adding “status as a victim of sexual assault or status as a victim of trafficking in persons”; P.A. 25-168 deleted references to municipal public works contracts and quasi-public agency project contracts throughout, moved definitions in deleted Subsecs. (d) and (e) to new Subsec. (a) and added definitions for “public works contract” and “awarding agency” therein, redesignated existing Subsecs. (a) to (c) as Subsecs. (b) to (d) and existing Subsecs. (g) and (h) as Subsecs. (f) and (g), amended Subsec. (b)(1) to add references to sexual orientation, amended Subsec. (d)(1) to add reference to public works contract and make a technical change, amended Subsec. (e) to add reference to timing and value of bids, amended Subsec. (g) to make technical changes and added new Subsec. (h) re adoption of regulations.

Construction Contracts - Required Contract Provisions (State Funded Only Contracts)

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Index of Exhibits

EXHIBIT A - Affirmative Action Policy Statement (page 14)

EXHIBIT B - Health Insurance Portability and Accountability Act of 1996 (HIPAA) (page 18)

EXHIBIT C - State Wage Rates and Other Related Information (Begins on page 26)

1. Contract Wage Rates

The Contractor shall comply with:

The State wage rate requirements indicated in Exhibit D hereof are hereby made part of this Contract.

Prevailing Wages for Work on State Highways; Annual Adjustments. With respect to contracts for work on state highways and bridges on state highways, the Contractor shall comply with the provisions of Section 31-54 and 31-55a of the Connecticut General Statutes, as revised.

As required by section 1.05.12 (Payrolls) of the State of Connecticut, Department of Transportation's Standard Specification for Roads, Bridges and Incidental Construction (FORM 819), as may be revised, every Contractor or subcontractor performing project work on a federal aid project is required to post the relevant prevailing wage rates as determined by the United States Secretary of Labor. The wage rate determinations shall be posted in prominent and easily accessible places at the work site.

2. Americans with Disabilities Act of 1990, as Amended

This provision applies to those Contractors who are or will be responsible for compliance with the terms of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. 12101 et seq.), (Act), during the term of the Contract. The Contractor represents that it is familiar with the terms of this Act and that it is in compliance with the Act. Failure of the Contractor to satisfy this standard as the same applies to performance under this Contract, either now or during the term of the Contract as it may be amended, will render the Contract voidable at the option of the State upon notice to the contractor. The Contractor warrants that it will hold the State harmless and indemnify the State from any liability which may be imposed upon the State as a result of any failure of the Contractor to be in compliance with this Act, as the same applies to performance under this Contract.

3. Connecticut Statutory Labor Requirements

(a) Construction, Alteration or Repair of Public Works Projects; Wage Rates. The Contractor shall comply with Section 31-53 of the Connecticut General Statutes, as revised. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (i) of section 31-53 of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

(b) Debarment List. Limitation on Awarding Contracts. The Contractor shall comply with Section 31-53a of the Connecticut General Statutes, as revised.

(c) Construction Safety and Health Course. The Contractor shall comply with section 31-53b of the Connecticut General Statutes, as revised. The contractor shall furnish proof to the Labor Commissioner 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 of the Connecticut General Statutes, as revised, 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.

Any employee required to complete a construction safety and health course as required that has not completed the course, shall have a maximum of fourteen (14) days to complete the course. If the employee has not been brought into compliance, they shall be removed from the project until such time as they have completed the required training.

Any costs associated with this notice shall be included in the general cost of the contract. In addition, there shall be no time granted to the contractor for compliance with this notice. The contractor's compliance with this notice and any associated regulations shall not be grounds for claims as outlined in Section 1.11 – "Claims".

(d) Awarding of Contracts to Occupational Safety and Health Law Violators Prohibited.

The Contract is subject to Section 31-57b of the Connecticut General Statutes, as revised.

(e) Residents Preference in Work on Other Public Facilities. NOT APPLICABLE TO FEDERAL AID CONTRACTS. Pursuant to Section 31-52a of the Connecticut General Statutes, as revised, in the employment of mechanics, laborers or workmen to perform the work specified herein, preference shall be given to residents of the state who are, and continuously for at least six months prior to the date hereof have been, residents of this state, and if no such person is available, then to residents of other states.

4. Tax Liability - Contractor's Exempt Purchase Certificate (CERT – 141)

The Contractor shall comply with Chapter 219 of the Connecticut General Statutes pertaining to tangible personal property or services rendered that is/are subject to sales tax. The Contractor is responsible for determining its tax liability. If the Contractor purchases materials or supplies pursuant to the Connecticut Department of Revenue Services' "Contractor's Exempt Purchase Certificate (CERT-141)," as may be revised, the Contractor acknowledges and agrees that title to such materials and supplies installed or placed in the project will vest in the State simultaneously with passage of title from the retailers or vendors thereof, and the Contractor will have no property rights in the materials and supplies purchased.

Forms and instructions are available anytime by: Internet: Visit the DRS website at www.ct.gov/DRS to download and print Connecticut tax forms; or Telephone: Call 1-800-382- 9463 (Connecticut calls outside the Greater Hartford calling area only) and select Option 2 or call 860-297-4753 (from anywhere).

5. Executive Orders and Other Enactments

- (a) All references in this Contract to any Federal, State, or local law, statute, public or special act, executive order, ordinance, regulation or code (collectively, "Enactments") shall mean Enactments that apply to the Contract at any time during its term, or that may be made applicable to the Contract during its term. This Contract shall always be read and interpreted in accordance with the latest applicable wording and requirements of the Enactments. Unless otherwise provided by Enactments, the Contractor is not relieved of its obligation to perform under this Contract if it chooses to contest the applicability of the Enactments or the Client Agency's authority to require compliance with the Enactments.
- (b) This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of this Contract as if they had been fully set forth in it.
- (c) This Contract may be subject to (1) Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services; and (2) Executive Order No. 61 of Governor Dannel P. Malloy promulgated December 13, 2017, concerning the Policy for the Management of State Information Technology Projects, as issued by the Office of Policy and Management, Policy ID IT-SDLC-17-04. If any of the Executive Orders referenced in this subsection is applicable, it is deemed to be incorporated into and made a part of this Contract as if fully set forth in it.

6. Non-Discrimination

- (a) For purposes of this Section, the following terms are defined as follows:
 - i. "Commission" means the Commission on Human Rights and Opportunities;
 - ii. "Contract" and "contract" include any extension or modification of the Contract or contract;
 - iii. "Contractor" and "contractor" include any successors or assigns of the Contractor or contractor;
 - iv. "Gender identity or expression" means a person's gender-related identity, appearance or behavior, whether or not that gender-related identity, appearance or behavior is different from that traditionally associated with the person's physiology or assigned sex at birth, which gender-related identity can be shown by providing evidence including, but not limited to, medical history, care or treatment of the gender-related identity, consistent and uniform assertion of the
 - v. gender-related identity or any other evidence that the gender-related identity is sincerely held, part of a person's core identity or not being asserted for an improper purpose;
 - vi. "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations;
 - vii. "good faith efforts" includes, but is not 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;
 - viii. "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced;
 - ix. "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders;

- x. "minority business enterprise" means any small contractor (1) fifty-one per cent or more of the capital stock, if any, or assets of which are owned by a person or persons who (a) exercise operational authority over the daily affairs of the enterprise, (b) have the power to direct the management and policies and receive the beneficial interest of the enterprise, (c) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, and (d) are members of a minority, as defined in C.G.S. § 32-9n, or are individuals with a disability, or (2) which is a nonprofit corporation in which fifty-one per cent or more of the persons who exercise operational authority over the enterprise, (a) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, (b) have the power to direct the management and policies of the enterprise, and (c) are member of a minority, as defined in C.G.S. § 32-9n, or are individuals with a disability; and
- xi. "public works contract" means any agreement (A) for construction, rehabilitation, conversion, extension, demolition or repair of changes or improvements in real property, and (B) that is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees where such funding equals one hundred fifty thousand dollars or more.

For purposes of this Section, the terms "Contract" and "contract" do not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a public works contract, (2) any other state, including but not limited to any federally recognized Indian tribal governments, as defined in C.G.S. § 1-267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in the immediately preceding enumerated items (1), (2), (3), or (4).

(b) (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, sexual orientation, gender identity or expression, status as a veteran, status as a victim of domestic violence, status as a victim of sexual assault or status as a victim of trafficking in persons, 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, in any manner prohibited by the laws of the United States or of the State of Connecticut; and the Contractor further agrees to take affirmative action to

ensure 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, status as a veteran, status as a victim of domestic violence, status as a victim of sexual assault or status as a victim of trafficking in persons, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by the Contractor that such disability prevents performance of the work involved;

(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 the Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which the 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 Connecticut General Statutes §§ 46a-68e and 46a-68f and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes §§ 46a-56, 46a-68e, 46a-68f and 46a-86; and

(5) the Contractor agrees to provide the Commission 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 relate to the provisions of this Section and Connecticut General Statutes § 46a-56. If the contract is a public works contract, the Contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works projects.

(c) 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; the timing and value of bids; 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.

(d) The Contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts.

(e) The Contractor shall include the provisions of subsection (b) of this Section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State, and in every subcontract entered into in order to fulfill any obligation of a public works contract, and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. 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 Connecticut General Statutes § 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, 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.

(f) 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.

(g) Pursuant to subsection (c) of section 4a-60 of the Connecticut General Statutes, the Contractor, for itself and its authorized signatory of this Contract, affirms that it understands the obligations of this Section and that it will maintain a policy for the duration of the Contract to assure that the Contract will be performed in compliance with the nondiscrimination requirements of such section. The Contractor and its authorized signatory of this Contract demonstrate their understanding of this obligation by (A) having provided an affirmative response in the required online bid or response to a proposal question which asks if the contractor understands its obligations under such sections, (B) signing this Contract, or (C) initialing this nondiscrimination affirmation in the following box: ☐

7. Whistleblower Provision

The following clause is applicable if the Contract has a value of Five Million Dollars (\$5,000,000) or more. Whistleblowing. This Contract may be subject to the provisions of Section 4-61dd of the Connecticut General Statutes. In accordance with this statute, if an officer, employee or appointing authority of the Contractor takes or threatens to take any personnel action against any employee of the Contractor in retaliation for such employee's disclosure of information to any employee of the

contracting state or quasi-public agency or the Auditors of Public Accounts or the Attorney General under the provisions of subsection (a) of such statute, the Contractor shall be liable for a civil penalty of not more than five thousand dollars for each offense, up to a maximum of twenty per cent of the value of this Contract.

Each violation shall be a separate and distinct offense and in the case of a continuing violation, each calendar day's continuance of the violation shall be deemed to be a separate and distinct offense. The State may request that the Attorney General bring a civil action in the Superior Court for the Judicial District of Hartford to seek imposition and recovery of such civil penalty. In accordance with subsection (f) of such statute, each large state contractor, as defined in the statute, shall post a notice of the provisions of the statute relating to large state contractors in a conspicuous place which is readily available for viewing by the employees of the Contractor.

8. Connecticut Freedom of Information Act

- (a) Disclosure of Records.** This Contract may be subject to the provisions of section 1-218 of the Connecticut General Statutes. In accordance with this statute, each contract in excess of two million five hundred thousand dollars between a public agency and a person for the performance of a governmental function shall (a) provide that the public agency is entitled to receive a copy of records and files related to the performance of the governmental function, and (b) indicate that such records and files are subject to FOIA and may be disclosed by the public agency pursuant to FOIA. No request to inspect or copy such records or files shall be valid unless the request is made to the public agency in accordance with FOIA. Any complaint by a person who is denied the right to inspect or copy such records or files shall be brought to the Freedom of Information Commission in accordance with the provisions of sections 1-205 and 1-206 of the Connecticut General Statutes,
- (b) Confidential Information.** The State will afford due regard to the Contractor's request for the protection of proprietary or confidential information which the State receives from the Contractor. However, all materials associated with the Contract are subject to the terms of the FOIA and all corresponding rules, regulations and interpretations. In making such a request, the Contractor may not merely state generally that the materials are proprietary or confidential in nature and not, therefore, subject to release to third parties. Those particular sentences, paragraphs, pages or sections that the Contractor believes are exempt from disclosure under the FOIA must be specifically identified as such. Convincing explanation and rationale sufficient to justify each exemption consistent with the FOIA must accompany the request. The rationale and explanation must be stated in terms of the prospective harm to the competitive position of the Contractor that would result if the identified material were to be released and the reasons why the materials are legally exempt from release pursuant to the FOIA. To the extent that any other provision or part of the Contract conflicts or is in any way inconsistent with this section, this section controls and shall apply, and the conflicting provision or part shall not be given effect. If the Contractor indicates that certain documentation is submitted in confidence, by specifically and clearly marking the documentation as "CONFIDENTIAL," DOT will first review the Contractor's claim for consistency with the FOIA (that is, review that the documentation is actually a trade secret or commercial or financial information and not required by statute), and if determined to be consistent, will endeavor to keep such information confidential to the extent permitted by law. See, *e.g.*, Conn. Gen. Stat. §1-210(b)(5) (A-B). The State, however, has no obligation to initiate, prosecute or defend any legal proceeding or to seek a protective order or other similar relief to prevent disclosure of any information that is sought pursuant to a FOIA request. Should the State withhold such documentation from a Freedom of Information requester and a complaint be brought to the Freedom of Information Commission, the Contractor shall have the burden of cooperating with DOT in

defense of that action and in terms of establishing the availability of any FOIA exemption in any proceeding where it is an issue. In no event shall the State have any liability for the disclosure of any documents or information in its possession which the State believes are required to be disclosed pursuant to the FOIA or other law.

9. Service of Process

The Contractor, if not a resident of the State of Connecticut, or, in the case of a partnership, the partners, if not residents, hereby appoints the Secretary of State of the State of Connecticut, and his successors in office, as agent for service of process for any action arising out of or as a result of this Contract; such appointment to be in effect throughout the life of this Contract and six (6) years thereafter.

10. Substitution of Securities for Retainages on State Contracts and Subcontracts

This Contract is subject to the provisions of Section 3-112a of the General Statutes of the State of Connecticut, as revised.

11. Health Insurance Portability and Accountability Act of 1996 (HIPAA)

The Contractor shall comply, if applicable, with the Health Insurance Portability and Accountability Act of 1996 and, pursuant thereto, the provisions attached at Exhibit B, and hereby made part of this Contract.

12. Forum and Choice of Law

The parties deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the Contract to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the State, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Contractor waives any objection which it may now have or will have to the laying of venue of any Claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

13. Summary of State Ethics Laws

Pursuant to the requirements of section 1-101qq of the Connecticut General Statutes (a) the State has provided to the Contractor the summary of State ethics laws developed by the Office of State Ethics pursuant to section 1-81b of the Connecticut General Statutes, which summary is incorporated by reference into and made a part of this Contract as if the summary had been fully set forth in this Contract; (b) the Contractor represents that the chief executive officer or authorized signatory of the Contract and all key employees of such officer or signatory have read and understood the summary and agree to comply with the provisions of state ethics law; (c) prior to entering into a contract with any subcontractors or consultants, the Contractor shall provide the summary to all subcontractors and consultants and each such contract entered into with a subcontractor or consultant on or after July 1, 2021, shall include a representation that each subcontractor or consultant and the key employees of such subcontractor or consultant have read and understood the summary and agree to comply with the provisions of state ethics law; (d) failure to include such representations in such contracts with subcontractors or consultants shall be

cause for termination of the Contract; and (e) each contract with such contractor, subcontractor or consultant shall incorporate such summary by reference as a part of the contract terms.

14. Audit and Inspection of Plants, Places of Business and Records

- (a) The State and its agents, including, but not limited to, the Connecticut Auditors of Public Accounts, Attorney General and State's Attorney and their respective agents, may, at reasonable hours, inspect and examine all of the parts of the Contractor's an involved in, the performance of this Contract. For the purposes of this Section, "Contractor Parties" means the Contractor's members, directors, officers, shareholders, partners, managers, principal officers, representatives, agents, servants, consultants, employees or any one of them or any other person or entity with whom the Contractor is in privity of oral or written contract and the Contractor intends for such other person or entity to Perform under the Contract in any capacity. The Contractor shall maintain and shall require each of the Contractor Parties to maintain, accurate and complete Records. The Contractor shall make all of its and the Contractor Parties' Records available at all reasonable hours for audit and inspection by the State and its agents.
- (b) The State shall make all requests for any audit or inspection in writing and shall provide the Contractor with at least twenty-four (24) hours' notice prior to the requested audit and inspection date. If the State suspects fraud or other abuse, or in the event of an emergency, the State is not obligated to provide any prior notice.
- (c) The Contractor shall keep and preserve or cause to be kept and preserved all of its and Contractor Parties' Records until three (3) years after the latter of (i) final payment under this Agreement, or (ii) the expiration or earlier termination of this Agreement, as the same may be modified for any reason. The State may request an audit or inspection at any time during this period. If any Claim or audit is started before the expiration of this period, the Contractor shall retain or cause to be retained all Records until all Claims or audit findings have been resolved.
- (d) The Contractor shall cooperate fully with the State and its agents in connection with an audit or inspection. Following any audit or inspection, the State may conduct, and the Contractor shall cooperate with an exit conference.
- (e) The Contractor shall incorporate this entire Section verbatim into any contract or other agreement that it enters into with any Contractor Party.

15. Campaign Contribution Restriction

Campaign Contribution Restriction. For all State contracts, defined in section 9-612 of the Connecticut General Statutes as having a value of \$50,000 or more, or a combination or series of such agreements or contracts having a value of \$100,000 or more in a calendar year, the authorized signatory to this Agreement represents that they have received the State Elections Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice.

16. Tangible Personal Property

- (a) The Contractor on its behalf and on behalf of its Affiliates, as defined below, shall comply with the provisions of Conn. Gen. Stat. §12-411b, as follows:
 - (1) For the term of the Contract, the Contractor and its Affiliates shall collect and remit to the State of Connecticut, Department of Revenue Services, any Connecticut use tax due under the provisions of Chapter 219 of the Connecticut General Statutes for items of tangible personal property sold by the Contractor or by any of its Affiliates in the same manner as if the Contractor and such Affiliates were engaged in the business of selling tangible personal property for use in Connecticut and had sufficient nexus under the provisions of Chapter 219 to be required to collect Connecticut use tax;
 - (2) A customer's payment of a use tax to the Contractor or its Affiliates relieves the customer of liability for the use tax;
 - (3) The Contractor and its Affiliates shall remit all use taxes they collect from customers on or

before the due date specified in the Contract, which may not be later than the last day of the month next succeeding the end of a calendar quarter or other tax collection period during which the tax was collected;

(4) The Contractor and its Affiliates are not liable for use tax billed by them but not paid to them by a customer; and

(5) Any Contractor or Affiliate who fails to remit use taxes collected on behalf of its customers by the due date specified in the Contract shall be subject to the interest and penalties provided for persons required to collect sales tax under chapter 219 of the general statutes.

(b) For purposes of this section of the Contract, the word "Affiliate" means any person, as defined in section 12-1 of the general statutes, that controls, is controlled by, or is under common control with another person. A person controls another person if the person owns, directly or indirectly, more than ten per cent of the voting securities of the other person. The word "voting security" means a security that confers upon the holder the right to vote for the election of members of the board of directors or similar governing body of the business, or that is convertible into, or entitles the holder to receive, upon its exercise, a security that confers such a right to vote. "Voting security" includes a general partnership interest.

(c) The Contractor represents and warrants that each of its Affiliates has vested in the Contractor plenary authority to so bind the Affiliates in any agreement with the State of Connecticut. The Contractor on its own behalf and on behalf of its Affiliates shall also provide, no later than 30 days after receiving a request by the State's contracting authority, such information as the State may require to ensure, in the State's sole determination, compliance with the provisions of Chapter 219 of the Connecticut General Statutes, including, but not limited to, §12-411b.

17. Bid Rigging and/or Fraud – Notice to Contractor

The Connecticut Department of Transportation is cooperating with the U.S. Department of Transportation and the Justice Department in their investigation into highway construction contract bid rigging and/or fraud.

A toll-free "HOT LINE" telephone number 800-424-9071 has been established to receive information from contractors, subcontractors, manufacturers, suppliers or anyone with knowledge of bid rigging and/or fraud, either past or current. The "HOT LINE" telephone number will be available during normal working hours (8:00 am – 5:00 pm EST).

Information will be treated confidentially, and anonymity respected.

18. Consulting Agreement Representation

Pursuant to section 4a-81 of the Connecticut General Statutes, the person signing this Contract on behalf of the Contractor represents, to their best knowledge and belief and subject to the penalty of false statement as provided in section 53a-157b of the Connecticut General Statutes, that the Contractor has not entered into any consulting agreements in connection with this Contract, except for the agreements listed below or in an attachment to this Contract. "Consulting agreement" means any written or oral agreement to retain the services, for a fee, of a consultant for the purposes of (A) providing counsel to a contractor, vendor, consultant or other entity seeking to conduct, or conducting, business with the State,

(B) contacting, whether in writing or orally, any executive, judicial, or administrative office

of the State, including any department, institution, bureau, board, commission, authority, official or employee for the purpose of solicitation, dispute resolution, introduction, requests for information, or

(C) any other similar activity related to such contracts. "Consulting agreement" does not include any agreements entered into with a consultant who is registered under the provisions of chapter 10 of the Connecticut General Statutes as of the date such contract is executed in accordance with the provisions of section 4a-81 of the Connecticut General Statutes.

Consultant's Name and Title

Name of Firm (if applicable)

Start Date

End Date

Cost

The basic terms of the consulting agreement are: _____

Description of Services Provided:

Is the consultant a former State employee or former public official? ☐ YES ☐ NO If

YES: _____

Name of Former State Agency

Termination Date of Employment

19. Sovereign Immunity

The parties acknowledge and agree that nothing in the Solicitation or the Contract shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by Federal law or the laws of the State of Connecticut to the State or any of its officers and employees, which they may have had, now have or will have with respect to all matters arising out of the Contract. To the extent that this section conflicts with any other section, this section shall govern.

20. Large State Contract Representation for Contractor

Pursuant to section 4-252 of the Connecticut General Statutes and Acting Governor Susan Bysiewicz Executive Order No. 21-2, promulgated July 1, 2021, the Contractor, for itself and on behalf of all of its principals or key personnel who submitted a bid or proposal, represents:

That no gifts were made by (A) the Contractor, (B) any principals and key personnel of the Contractor, who participate substantially in preparing bids, proposals or negotiating State contracts, or (C) any agent of the Contractor or principals and key personnel, who participates substantially in preparing bids, proposals or negotiating State contracts, to (i) any public official or State employee of the State agency or quasi- public agency soliciting bids or proposals for State contracts, who participates substantially in the preparation of bid solicitations or requests for proposals for State contracts or the negotiation or award of State contracts, or (ii) any public official or State employee of any other State agency, who has supervisory or appointing authority over such State agency or quasi-public agency;

- (1) That no such principals and key personnel of the Contractor, or agent of the Contractor or of such principals and key personnel, knows of any action by the Contractor to circumvent such prohibition on gifts by providing for any other principals and key personnel, official, employee or agent of the Contractor to provide a gift to any such public official or State employee; and
- (2) That the Contractor is submitting bids or proposals without fraud or collusion with any person.

21. Large State Contract Representation for Official or Employee of State Agency

Pursuant to section 4-252 of the Connecticut General Statutes and Acting Governor Susan Bysiewicz Executive Order No. 21-2, promulgated July 1, 2021, the State agency official or employee represents that the selection of the person, firm or corporation was not the result of collusion, the giving of a gift or the promise of a gift, compensation, fraud or inappropriate influence from any person.

22. Iran Investment Energy Certification

(a) Pursuant to section 4-252a of the Connecticut General Statutes, the Contractor certifies that it has not made a direct investment of twenty million dollars or more in the energy sector of Iran on or after October 1, 2013, as described in Section 202 of the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010, and has not increased or renewed such investment on or after said date.

(b) If the Contractor makes a good faith effort to determine whether it has made an investment described in subsection (a) of this section, then the Contractor shall not be deemed to be in breach of the Contract or in violation of this section. A "good faith effort" for purposes of this subsection includes a determination that the Contractor is not on the list of persons who engage in certain investment activities in Iran created by the Department of General Services of the State of California pursuant to Division 2, Chapter 2.7 of the California Public Contract Code. Nothing in this subsection shall be construed to impair the ability of the State agency or quasi-public agency to pursue a breach of contract action for any violation of the provisions of the Contract.

23. Access to Contract and State Data

The Contractor shall provide to the Client Agency access to any data, as defined in Conn. Gen Stat. Sec. 4e-1, concerning the Contract and the Client Agency that are in the possession or control of the Contractor upon demand and shall provide the data to the Client Agency in a format prescribed by the Client Agency and the State Auditors of Public Accounts at no additional cost.

24. Affirmative Action Policy Statement

The Contractor shall comply with the Affirmative Action Policy Statement, as applicable, attached at Exhibit B and hereby made part of this Contract.

25. Compliance with Consumer Data Privacy and Online Monitoring

Pursuant to section 4e-72a of the Connecticut General Statutes, Contractor shall at all times comply with all applicable provisions of sections 42-515 to 42-525, inclusive, of the Connecticut General Statutes, as the same may be revised or modified.

EXHIBIT A**AFFIRMATIVE ACTION POLICY STATEMENT (October 2023)**

It is the policy of this firm to assure that applicants are employed, and that employees are treated during employment, without regard to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved and to promote the full realization of equal employment opportunity through positive and continuous affirmative efforts. Such action shall include employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or terminations, rates of pay or other forms of compensation, selection for training/apprenticeship, pre-apprenticeship opportunities, and on-the-job training opportunities.

This firm will implement, monitor, enforce and achieve full compliance with this Affirmative Action Policy Statement in conjunction with the applicable Federal and State laws, regulations, executive orders, and contract provisions, including but not limited to those listed below:

Dissemination of Policy:

All members of the firm who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, this firm's Equal Employment Opportunity (EEO) policy and contractual responsibilities to provide EEO in each grade and classification of employment. These actions shall include:

1. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the firm's EEO policy and its implementation will be reviewed and explained. These meetings will be conducted by the EEO officer.
2. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
3. All personnel who are engaged in direct recruitment for the firm will be instructed by the EEO Officer of the contractor's procedures for locating and hiring minority group employees.
4. Notices and posters setting forth the firm's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
5. The firm's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
6. Sexual Harassment Prevention Resources including training and remedies must be available to all employees. See Connecticut General Assembly Public Acts 19-16 and 19-93.

Recruitment:

When advertising for employees, the firm will include in all advertisements the notation; “An Affirmative Action/Equal Opportunity Employer.” All such advertisements will be placed in publications having a large circulation among minority groups in the area where the workforce would normally be derived.

1. The firm will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority and female applicants. To meet this requirement, the firm will identify referral sources and establish procedures for recruitment to obtain the referral of minority and female applicants.
2. In the event the firm has a valid bargaining agreement providing for exclusive hiring referrals, he/she is expected to observe the provisions of that agreement to the extent that the system permits the contractor’s compliance with EEO contract provisions. (The United States Department of Labor has held that where implementation of such agreements has had the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.) The firm will encourage his/her present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

Personnel Actions:

Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to an individual’s race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved. The following procedures shall be followed:

1. The firm will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of personnel.
2. The firm will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take correction action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
3. The firm shall periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
4. The firm will promptly investigate all complaints of alleged discrimination made to the firm and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective actions shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

Training and Promotion:

The firm will assist in locating, qualifying, and increasing the skills of minorities and women. The firm will utilize the following tools to identify training and promotional opportunities in the firm:

1. The firm will advise employees and applicants for employment of available training programs and the entrance requirements.
2. The firm will periodically review the training and promotion of minority group and female employees and will encourage eligible employees to apply for such training and promotion.

Unions:

If the firm relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the firm either directly or through a contractor's association acting as agent will include the procedures set forth below:

1. The firm will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
2. The firm will use best efforts to incorporate an EEO clause into each union agreement to the extent that such union will be contractually bound to refer applicants without regard to their to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved.
3. The firm is to obtain information as to the referral practices and policies of the labor union except that to the extent that such information is within the exclusive possession of the labor union and such labor union refuses to furnish the information to the contractor, the contractor shall notify the Connecticut Department of Transportation (CTDOT) of the efforts made to obtain the information.
4. In the event the union is unable to provide the firm with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies. (The United States Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations under Executive Order 11246 as amended, and in compliance with 23 CFR Part 230, the firm will notify CTDOT.

Selection of Subcontractors:

The firm will not discriminate on the grounds race, color, religion, sex, sexual orientation, gender identity or expression, marital status, national origin, ancestry, age, intellectual

disability, learning disability, physical disability, including, but not limited to, blindness, or status as a veteran in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

1. The firm shall use his/her best efforts to ensure subcontractor/subconsultant compliance with Federal and State Equal Opportunity (EO) and EEO requirements.

Records and Reports:

The Contractor shall keep records as necessary to document compliance with EO/EEO requirements. Such reports shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of CTDOT and/or the United States Department of Transportation. The following records should be maintained:

6. The number of minority and non-minority group members and women employed in each work classification;
7. The progress and efforts being made in cooperation with unions, when applicable to increase the employment opportunities for minorities and women;
8. The documentation showing progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
9. Complaints of Discrimination.

In implementing this policy and ensuring that affirmative action is being provided, each time a hiring opportunity occurs this firm will contact and request referrals from minority and female organizations, referral sources, and media sources. All advertising will emphasize that the firm is “An Affirmative Action/Equal Opportunity Employer.”

In order to substantiate this firm’s efforts and affirmative actions to provide equal opportunity, the firm will maintain and submit, as requested, documentation such as referral request correspondence, copies of advertisements utilized and follow-up documentation to substantiate that efforts were made in good faith. This firm will maintain the necessary internal audit procedures and record keeping systems to report the firm’s affirmative action efforts.

It is understood by Owner/CEO/President of the firm and the firm’s Equal Employment Opportunity Officer and supervisory and managerial personnel that failure to effectively implement, monitor and enforce this firm’s affirmative action program and/or failure to adequately document and submit as required, the affirmative actions taken and efforts made to recruit and hire minority and female applicants in accordance with our affirmative action program in each instance of hire, will result in this firm being required to recommit itself to a modified and more stringent affirmative action program as a condition of approval. It is recognized that this policy is a contractual requirement and is a prerequisite for performing services for the contracting agency. This policy in addition to CTDOT’s EO/EEO contract provisions and requirements, shall constitute the CTDOT Affirmative Program requirements.

The ultimate responsibility for the full implementation of this firm’s Affirmative Action Program rests with the Chief Executive Officer of this firm.

EXHIBIT B

Health Insurance Portability and Accountability Act of 1996 (“HIPAA”).

- (a) If the Contactor is a Business Associate under the requirements of the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”), the Contractor must comply with all terms and conditions of this Section of the Contract. If the Contractor is not a Business Associate under HIPAA, this Section of the Contract does not apply to the Contractor for this Contract.
- (b) The Contractor is required to safeguard the use, publication and disclosure of information on all applicants for, and all clients who receive, services under the Contract in accordance with all applicable federal and state law regarding confidentiality, which includes but is not limited to HIPAA, more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E; and
- (c) The State of Connecticut Agency named on page 1 of this Contract (hereinafter the “Department”) is a “covered entity” as that term is defined in 45 C.F.R. § 160.103; and
- (d) The Contractor, on behalf of the Department, performs functions that involve the use or disclosure of “individually identifiable health information,” as that term is defined in 45 C.F.R. § 160.103; and
- (e) The Contractor is a “business associate” of the Department, as that term is defined in 45 C.F.R. § 160.103; and
- (f) The Contractor and the Department agree to the following in order to secure compliance with the HIPAA, the requirements of Subtitle D of the Health Information Technology for Economic and Clinical Health Act (hereinafter the HITECH Act), (Pub. L. 111-5, sections 13400 to 13423), and more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E.
- (g) Definitions
 - (1) “Breach shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(1))
 - (2) “Business Associate” shall mean the Contractor.
 - (3) “Covered Entity” shall mean the Department of the State of Connecticut named on page 1 of this Contract.

- (4) “Designated Record Set” shall have the same meaning as the term “designated record set” in 45 C.F.R. § 164.501.
 - (5) “Electronic Health Record” shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(5))
 - (6) “Individual” shall have the same meaning as the term “individual” in 45 C.F.R. § 160.103 and shall include a person who qualifies as a personal representative as defined in 45 C.F.R. § 164.502(g).
 - (7) “Privacy Rule” shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 C.F.R. part 160 and parts 164, subparts A and E.
 - (8) “Protected Health Information” or “PHI” shall have the same meaning as the term “protected health information” in 45 C.F.R. § 160.103, limited to information created or received by the Business Associate from or on behalf of the Covered Entity.
 - (9) “Required by Law” shall have the same meaning as the term “required by law” in 45 C.F.R. § 164.103.
 - (10) “Secretary” shall mean the Secretary of the Department of Health and Human Services or his designee.
 - (11) “More stringent” shall have the same meaning as the term “more stringent” in 45 C.F.R. § 160.202.
 - (12) “This Section of the Contract” refers to the HIPAA Provisions stated herein, in their entirety.
 - (13) “Security Incident” shall have the same meaning as the term “security incident” in 45 C.F.R. § 164.304.
 - (14) “Security Rule” shall mean the Security Standards for the Protection of Electronic Protected Health Information at 45 C.F.R. part 160 and parts 164, subpart A and C.
 - (15) “Unsecured protected health information” shall have the same meaning as the term as defined in section 13402(h)(1)(A) of HITECH. Act. (42 U.S.C. §17932(h)(1)(A)).
- (h) Obligations and Activities of Business Associates.
- (1) Business Associate agrees not to use or disclose PHI other than as permitted or required by this Section of the Contract or as Required by Law.

- (2) Business Associate agrees to use appropriate safeguards to prevent use or disclosure of PHI other than as provided for in this Section of the Contract.
- (3) Business Associate agrees to use administrative, physical and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of electronic protected health information that it creates, receives, maintains, or transmits on behalf of the Covered Entity.
- (4) Business Associate agrees to mitigate, to the extent practicable, any harmful effect that is known to the Business Associate of a use or disclosure of PHI by Business Associate in violation of this Section of the Contract.
- (5) Business Associate agrees to report to Covered Entity any use or disclosure of PHI not provided for by this Section of the Contract or any security incident of which it becomes aware.
- (6) Business Associate agrees to ensure that any agent, including a subcontractor, to whom it provides PHI received from, or created or received by Business Associate, on behalf of the Covered Entity, agrees to the same restrictions and conditions that apply through this Section of the Contract to Business Associate with respect to such information.
- (7) Business Associate agrees to provide access, at the request of the Covered Entity, and in the time and manner agreed to by the parties, to PHI in a Designated Record Set, to Covered Entity or, as directed by Covered Entity, to an Individual in order to meet the requirements under 45 C.F.R. § 164.524.
- (8) Business Associate agrees to make any amendments to PHI in a Designated Record Set that the Covered Entity directs or agrees to pursuant to 45 C.F.R. § 164.526 at the request of the Covered Entity, and in the time and manner agreed to by the parties.
- (9) Business Associate agrees to make internal practices, books, and records, including policies and procedures and PHI, relating to the use and disclosure of PHI received from, or created or received by, Business Associate on behalf of Covered Entity, available to Covered Entity or to the Secretary in a time and manner agreed to by the parties or designated by the Secretary, for purposes of the Secretary determining Covered Entity's compliance with the Privacy Rule.
- (10) Business Associate agrees to document such disclosures of PHI and information related to such disclosures as would be required for Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.
- (11) Business Associate agrees to provide to Covered Entity, in a time and manner agreed to by the parties, information collected in accordance with clause h. (10) of this Section of the Contract, to permit Covered Entity to respond to a request by an Individual for an

accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder. Business Associate agrees at the Covered Entity's direction to provide an accounting of disclosures of PHI directly to an individual in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.

- (12) Business Associate agrees to comply with any state or federal law that is more stringent than the Privacy Rule.
- (13) Business Associate agrees to comply with the requirements of the HITECH Act relating to privacy and security that are applicable to the Covered Entity and with the requirements of 45 C.F.R. sections 164.504(e), 164.308, 164.310, 164.312, and 164.316.
- (14) In the event that an individual requests that the Business Associate (a) restrict disclosures of PHI; (b) provide an accounting of disclosures of the individual's PHI; or (c) provide a copy of the individual's PHI in an electronic health record, the Business Associate agrees to notify the covered entity, in writing, within two business days of the request.
- (15) Business Associate agrees that it shall not, directly or indirectly, receive any remuneration in exchange for PHI of an individual without (1) the written approval of the covered entity, unless receipt of remuneration in exchange for PHI is expressly authorized by this Contract and (2) the valid authorization of the individual, except for the purposes provided under section 13405(d)(2) of the HITECH Act, (42 U.S.C. § 17935(d)(2)) and in any accompanying regulations
- (16) Obligations in the Event of a Breach
 - A. The Business Associate agrees that, following the discovery of a breach of unsecured protected health information, it shall notify the Covered Entity of such breach in accordance with the requirements of section 13402 of HITECH (42 U.S.C. 17932(b) and the provisions of this Section of the Contract.
 - B. Such notification shall be provided by the Business Associate to the Covered Entity without unreasonable delay, and in no case later than 30 days after the breach is discovered by the Business Associate, except as otherwise instructed in writing by a law enforcement official pursuant to section 13402 (g) of HITECH (42 U.S.C. 17932(g)). A breach is considered discovered as of the first day on which it is, or reasonably should have been, known to the Business Associate. The notification shall include the identification and last known address, phone number and email address of each individual (or the next of kin of the individual if the individual is deceased) whose unsecured protected health information has been or is reasonably believed by the Business Associate to have been, accessed, acquired, or disclosed during such breach.
 - C. The Business Associate agrees to include in the notification to the Covered Entity at

least the following information:

1. A brief description of what happened, including the date of the breach and the date of the discovery of the breach, if known.
2. A description of the types of unsecured protected health information that were involved in the breach (such as full name, Social Security number, date of birth, home address, account number, or disability code).
3. The steps the Business Associate recommends that individuals take to protect themselves from potential harm resulting from the breach.
4. A detailed description of what the Business Associate is doing to investigate the breach, to mitigate losses, and to protect against any further breaches.
5. Whether a law enforcement official has advised either verbally or in writing the Business Associate that he or she has determined that notification or notice to individuals or the posting required under section 13402 of the HITECH Act would impede a criminal investigation or cause damage to national security and; if so, include contact information for said official.

D. Business Associate agrees to provide appropriate staffing and have established procedures to ensure that individuals informed by the Covered Entity of a breach by the Business Associate have the opportunity to ask questions and contact the Business Associate for additional information regarding the breach. Such procedures shall include a toll-free telephone number, an e-mail address, a posting on its Web site and a postal address. Business Associate agrees to include in the notification of a breach by the Business Associate to the Covered Entity, a written description of the procedures that have been established to meet these requirements. Costs of such contact procedures will be borne by the Contractor.

E. Business Associate agrees that, in the event of a breach, it has the burden to demonstrate that it has complied with all notification's requirements set forth above, including evidence demonstrating the necessity of a delay in notification to the Covered Entity.

(i) Permitted Uses and Disclosure by Business Associate.

(1) General Use and Disclosure Provisions Except as otherwise limited in this Section of the Contract, Business Associate may use or disclose PHI to perform functions, activities, or services for, or on behalf of, Covered Entity as specified in this Contract, provided that such use or disclosure would not violate the Privacy Rule if done by Covered Entity or the minimum necessary policies and procedures of the Covered Entity.

(2) Specific Use and Disclosure Provisions

- (A) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI for the proper management and administration of Business Associate or to carry out the legal responsibilities of Business Associate.
 - (B) Except as otherwise limited in this Section of the Contract, Business Associate may disclose PHI for the proper management and administration of Business Associate, provided that disclosures are Required by Law, or Business Associate obtains reasonable assurances from the person to whom the information is disclosed that it will remain confidential and used or further disclosed only as Required by Law or for the purpose for which it was disclosed to the person, and the person notifies Business Associate of any instances of which it is aware in which the confidentiality of the information has been breached.
 - (C) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI to provide Data Aggregation services to Covered Entity as permitted by 45 C.F.R. § 164.504(e)(2)(i)(B).
- (j) Obligations of Covered Entity.
- (1) Covered Entity shall notify Business Associate of any limitations in its notice of privacy practices of Covered Entity, in accordance with 45 C.F.R. § 164.520, or to the extent that such limitation may affect Business Associate's use or disclosure of PHI.
 - (2) Covered Entity shall notify Business Associate of any changes in, or revocation of, permission by Individual to use or disclose PHI, to the extent that such changes may affect Business Associate's use or disclosure of PHI.
 - (3) Covered Entity shall notify Business Associate of any restriction to the use or disclosure of PHI that Covered Entity has agreed to in accordance with 45 C.F.R. § 164.522, to the extent that such restriction may affect Business Associate's use or disclosure of PHI.
- (k) Permissible Requests by Covered Entity. Covered Entity shall not request Business Associate to use or disclose PHI in any manner that would not be permissible under the Privacy Rule if done by the Covered Entity, except that Business Associate may use and disclose PHI for data aggregation, and management and administrative activities of Business Associate, as permitted under this Section of the Contract.
- (l) Term and Termination.
- (1) Term. The Term of this Section of the Contract shall be effective as of the date the Contract is effective and shall terminate when the information collected in accordance with clause h. (10) of this Section of the Contract is provided to the Covered Entity and all of the PHI provided by Covered Entity to Business Associate, or created or received by Business Associate on behalf of Covered Entity, is destroyed or returned to Covered Entity, or, if it is infeasible to return or destroy PHI, protections are extended to such

information, in accordance with the termination provisions in this Section. Termination for Cause Upon Covered Entity's knowledge of a material breach by Business Associate, Covered Entity shall either:

- (A) Provide an opportunity for Business Associate to cure the breach or end the violation and terminate the Contract if Business Associate does not cure the breach or end the violation within the time specified by the Covered Entity; or
- (B) Immediately terminate the Contract if Business Associate has breached a material term of this Section of the Contract and cure is not possible; or
- (C) If neither termination nor cure is feasible, Covered Entity shall report the violation to the Secretary.

(2) Effect of Termination

- (A) Except as provided in (l)(2) of this Section of the Contract, upon termination of this Contract, for any reason, Business Associate shall return or destroy all PHI received from Covered Entity or created or received by Business Associate on behalf of Covered Entity. Business Associate shall also provide the information collected in accordance with clause h. (10) of this Section of the Contract to the Covered Entity within ten business days of the notice of termination. This provision shall apply to PHI that is in the possession of subcontractors or agents of Business Associate. Business Associate shall retain no copies of the PHI.
- (B) In the event that Business Associate determines that returning or destroying the PHI is infeasible, Business Associate shall provide to Covered Entity notification of the conditions that make return or destruction infeasible. Upon documentation by Business Associate that return or destruction of PHI is infeasible, Business Associate shall extend the protections of this Section of the Contract to such PHI and limit further uses and disclosures of PHI to those purposes that make return or destruction infeasible, for as long as Business Associate maintains such PHI. Infeasibility of the return or destruction of PHI includes, but is not limited to, requirements under state or federal law that the Business Associate maintains or preserves the PHI or copies thereof.

(m) Miscellaneous Provisions.

- (1) Regulatory References. A reference in this Section of the Contract to a section in the Privacy Rule means the section as in effect or as amended.
- (2) Amendment. The Parties agree to take such action as is necessary to amend this Section of the Contract from time to time as is necessary for Covered Entity to comply with requirements of the Privacy Rule and the Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191.

- (3) Survival. The respective rights and obligations of Business Associate shall survive the termination of this Contract. Except as specifically required to implement the purposes of this Section of the Contract, all other terms of the Contract shall remain in force and effect.
- (4) Construction. This Section of the Contract shall be construed as broadly as necessary to implement and comply with the Privacy Standard. Any ambiguity in this Section of the Contract shall be resolved in favor of a meaning that complies, and is consistent with, the Privacy Standard.
- (5) Disclaimer. Covered Entity makes no warranty or representation that compliance with this Section of the Contract will be adequate or satisfactory for Business Associate's own purposes. Covered Entity shall not be liable to Business Associate for any claim, civil or criminal penalty, loss or damage related to or arising from the unauthorized use or disclosure of PHI by Business Associate or any of its officers, directors, employees, contractors or agents, or any third party to whom Business Associate has disclosed PHI contrary to the provisions of this Contract or applicable law. Business Associate is solely responsible for all decisions made, and actions taken, by Business Associate regarding the safeguarding, use and disclosure of PHI within its possession, custody or control.
- (6) Indemnification. The Business Associate shall indemnify and hold the Covered Entity harmless from and against any and all claims, liabilities, judgments, fines, assessments, penalties, awards and any statutory damages that may be imposed or assessed pursuant to HIPAA, as amended or the HITECH Act, including, without limitation, attorney's fees, expert witness fees, costs of investigation, litigation or dispute resolution, and costs awarded thereunder, relating to or arising out of any violation by the Business Associate and its agents, including subcontractors, of any obligation of Business Associate and its agents, including subcontractors, under this section of the contract, under HIPAA, the HITECH Act, the Privacy Rule and the Security Rule.

EXHIBIT C

State Wages and Other Related Information

Please refer to the Department of Labor website for the latest updates, annual adjusted wage rate increases, certified payroll forms and applicable statutes.

<http://www.ctdol.state.ct.us/wgwkstnd/prevailwage.htm>

Prevailing Wage Law Poster Language

**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.**

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; 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;

(3) 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;

The internet website for the federal OSHA Training Institute is
http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html

;

- (4) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (5) 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;
- (6) 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;
- (7) 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;
- (8) 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;
- (8) 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;
- (9) 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;
- (10) 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;
- (11) 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 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.
- (12) 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.

**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).

Signature

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): _____

Information Bulletin **Occupational Classifications**

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(d).

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. If unsure, the employer should seek guidelines for CTDOL.

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.

□ **LABORER, CLEANING**

- The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

□ **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 or 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.

□ **FORKLIFT 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 require 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 require equal composite workforce.

□ **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.

□ **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), decorative security fence (non-metal).

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 artwork and drywall hhg 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 J1,2,3,4 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. (demolition 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 repairs sheet metal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheet metal 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, canopies, cornice, column covers, awnings, beam covers, cladding, sunshades, 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. 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. To include testing and air –balancing ancillary to installation and construction.

☐ **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**

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are required to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ***License required, drivers only, per Connecticut General Statutes.**

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.**

**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.

Rev. 7/1/19

SEE BELOW FOR STATE WAGE RATES

Insert State Wages Here

Clean Water Fund Memorandum (2019-003)

Disadvantaged Business Enterprise (DBE) Subcontractor Participation on Clean Water Fund (CWF) Projects for 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 CWF projects.

This memorandum supersedes the **Clean Water Fund Memorandum (2016-003)**

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 DBEs.

III. EPA REQUIREMENTS

The following clause shall be included in all construction contract documents and amendments 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:

Minority Business Enterprise (MBE): 3.0 percent
Woman Business Enterprise (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. THE SIX GOOD FAITH EFFORTS AS SPECIFICALLY DEFINED BY EPA

The Six Good Faith Efforts are required methods employed by all Connecticut Department of Energy and Environmental Protection (DEEP) CWF recipients to ensure that all DBEs have the opportunity to compete for procurements funded by DEEP financial assistance dollars. The prime contractor is expected to employ the six good faith efforts throughout the entire project to insure that the DBE percentages are maintained or exceeded in the event that one DBE subcontractor needs to be substituted for another.

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 Small Business Administration (SBA) (Federal) 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.

V. 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 (a woman who is also a member of a minority class):

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 Connecticut Department of Energy and Environmental Protection (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 Connecticut Department of Transportation (CTDOT), the detailed information page within their online database suffices as proof.

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 Connecticut General Statute 4a-60g.
2. **CTDOT** - Companies that desire to do business with CTDOT as well as the DEEP should seek CTDOT certification which will be accepted by the DEEP. DBE firms are advised that the certification process can take 90 days to complete. CTDOT will certify both in state as well as out of state firms.

3. **EPA** - In the event an entity cannot be certified by CTDOT as a DBE, that entity should seek certification with EPA. Such entities must provide EPA with evidence from CTDOT denying certification.
4. **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 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

1. Within fourteen (14) calendar days after bid opening the prime contractor (apparent low bidder) shall complete and submit two copies of the DEEP Subcontractor Verification Form along with the DBE certification for each subcontractor to the municipality. The municipality must then submit one copy of these documents to DEEP as part of the authorization to award request.
2. Once DEEP authorizes the municipality to award the contract, the prime contractor is required to submit two copies of the executed DBE subcontracts to the municipality who submits one copy to the DEEP Financial Administrator.
3. No payment requests will be processed by DEEP until the executed copies of the subcontracts and the DBE certifications are on file in the DEEP office.
4. Should the prime contractor not meet the goals, documentation of good faith efforts will be required to be submitted to the DEEP Municipal Facilities Wastewater 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.
5. In the event that a DBE subcontractor is substituted for another during the project, two copies of the executed subcontract along with the corresponding DBE certification for the substitute are submitted to the municipality who forwards one copy of each to the DEEP Financial Administrator.
6. If additional construction costs are approved by DEEP, the prime contractor employs the good faith efforts defined above to meet the goals for the new total eligible contract amount.

VIII. DAS PREQUALIFICATION CERTIFICATION FOR DBE SUBCONTRACTORS

At time that the prime contractor submits copies of the executed DBE subcontracts to the municipality, two copies of the current DAS Prequalification Certificate for each DBE subcontractor whose subcontract value is equal to or greater than \$500,000 must also be submitted. In turn, the municipality is required to submit one copy of each DBE Prequalification Certification to the DEEP Financial Administrator. Suppliers of material or products who do not do installation or construction work are not subject to the DAS Construction Contractor prequalification requirement.

IX. SUBMISSION OF THIS FORM

This form is to be signed by the contractor or the contractor's authorized representative. The form is then submitted to the municipality's representative for signature. The municipality includes the form as part of the authorization to award request to DEEP.

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 _____

Name of Prime Contractor _____

Name and Title of Authorized Officer _____

Authorized Signature _____ Date _____

Town Official and Title _____

Authorized Signature _____ Date _____

X. DEFINITIONS

CGS: Connecticut General Statutes

CTDOT: Connecticut Department of Transportation

CWF: Clean Water Fund

DAS: Connecticut Department of Administrative Services

DBE: Disadvantaged Business Enterprise

DEEP: Connecticut 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)

June 19, 2019
Date


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



Disadvantage Business Enterprise (DBE)

Subcontractor Verification Form

Prime Contractor Company Name: _____

Contract Name/Number: _____

Contract Bid 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.

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	MBE % of Contract towards goal	WBE % of Contract towards goal

* Type of Product or Service: 1 - Construction 2 - Supplies 3 - Services 4 - Equipment

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).

Prime Contractor Authorized Signature

Date

"Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

This term and condition implements 2 CFR 200.216 and is effective for obligations and expenditures of EPA financial assistance funding on or after 8/13/2020. As required by 2 CFR 200.216, EPA recipients and subrecipients, including borrowers under EPA funded revolving loan fund programs, are prohibited from obligating or expending loan or grant funds to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). Recipients, subrecipients, and borrowers also may not use EPA funds to purchase: a. For the purpose of public safety, security of government facilities, physical security surveillance of critical Page 4 of 29 infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities). b. Telecommunications or video surveillance services provided by such entities or using such equipment. c. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country. Consistent with 2 CFR 200.471, costs incurred for telecommunications and video surveillance services or equipment such as phones, internet, video surveillance, and cloud servers are allowable except for the following circumstances: a. Obligating or expending EPA funds for covered telecommunications and video surveillance services or equipment or services as described in 2 CFR 200.216 to: (1) Procure or obtain, extend or renew a contract to procure or obtain; (2) Enter into a contract (or extend or renew a contract) to procure; or (3) Obtain the equipment, services, or systems. Certain prohibited equipment, systems, or services, including equipment, systems, or services produced or provided by entities identified in section 889, are recorded in the System for Award Management exclusion list."

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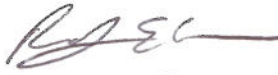
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

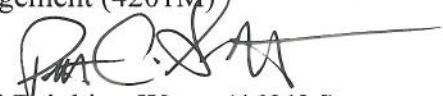
MAR 20 2014

OFFICE OF WATER

MEMORANDUM

SUBJECT: Implementation of American Iron and Steel provisions of P.L. 113-76,
Consolidated Appropriations Act, 2014

FROM: For Andrew D. Sawyers, Director 
Office of Wastewater Management (4201M)

Peter C. Grevatt, Director 
Office of Ground Water and Drinking Water (4601M)

TO: Water Management Division Directors
Regions I - X

P.L. 113-76, Consolidated Appropriations Act, 2014 (Act), includes an "American Iron and Steel (AIS)" requirement in section 436 that requires Clean Water State Revolving Loan Fund (CWSRF) and Drinking Water State Revolving Loan Fund (DWSRF) assistance recipients to use iron and steel products that are produced in the United States for projects for the construction, alteration, maintenance, or repair of a public water system or treatment works if the project is funded through an assistance agreement executed beginning January 17, 2014 (enactment of the Act), through the end of Federal Fiscal Year 2014.

Section 436 also sets forth certain circumstances under which EPA may waive the AIS requirement. Furthermore, the Act specifically exempts projects where engineering plans and specifications were approved by a State agency prior to January 17, 2014.

The approach described below explains how EPA will implement the AIS requirement. The first section is in the form of questions and answers that address the types of projects that must comply with the AIS requirement, the types of products covered by the AIS requirement, and compliance. The second section is a step-by-step process for requesting waivers and the circumstances under which waivers may be granted.

Implementation

The Act states:

Sec. 436. (a)(1) None of the funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12) shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States.

(2) In this section, the term “iron and steel products” means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

(b) Subsection (a) shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency (in this section referred to as the “Administrator”) finds that—

(1) applying subsection (a) would be inconsistent with the public interest;

(2) iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(3) inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

(c) If the Administrator receives a request for a waiver under this section, the Administrator shall make available to the public on an informal basis a copy of the request and information available to the Administrator concerning the request, and shall allow for informal public input on the request for at least 15 days prior to making a finding based on the request. The Administrator shall make the request and accompanying information available by electronic means, including on the official public Internet Web site of the Environmental Protection Agency.

(d) This section shall be applied in a manner consistent with United States obligations under international agreements.

(e) The Administrator may retain up to 0.25 percent of the funds appropriated in this Act for the Clean and Drinking Water State Revolving Funds for carrying out

the provisions described in subsection (a)(1) for management and oversight of the requirements of this section.

(f) This section does not apply with respect to a project if a State agency approves the engineering plans and specifications for the project, in that agency's capacity to approve such plans and specifications prior to a project requesting bids, prior to the date of the enactment of this Act.

The following questions and answers provide guidance for implementing and complying with the AIS requirements:

Project Coverage

1) What classes of projects are covered by the AIS requirement?

All treatment works projects funded by a CWSRF assistance agreement, and all public water system projects funded by a DWSRF assistance agreement, from the date of enactment through the end of Federal Fiscal Year 2014, are covered. The AIS requirements apply to the entirety of the project, no matter when construction begins or ends. Additionally, the AIS requirements apply to all parts of the project, no matter the source of funding.

2) Does the AIS requirement apply to nonpoint source projects or national estuary projects?

No. Congress did not include an AIS requirement for nonpoint source and national estuary projects unless the project can also be classified as a 'treatment works' as defined by section 212 of the Clean Water Act.

3) Are any projects for the construction, alteration, maintenance, or repair of a public water system or treatment works excluded from the AIS requirement?

Any project, whether a treatment works project or a public water system project, for which engineering plans and specifications were approved by the responsible state agency prior to January 17, 2014, is excluded from the AIS requirements.

4) What if the project does not have approved engineering plans and specifications but has signed an assistance agreement with a CWSRF or DWSRF program prior to January 17, 2014?

The AIS requirements do not apply to any project for which an assistance agreement was signed prior to January 17, 2014.

5) What if the project does not have approved engineering plans and specifications, but bids were advertised prior to January 17, 2014 and an assistance agreement was signed after January 17, 2014?

If the project does not require approved engineering plans and specifications, the bid advertisement date will count in lieu of the approval date for purposes of the exemption in section 436(f).

6) What if the assistance agreement that was signed prior to January 17, 2014, only funded a part of the overall project, where the remainder of the project will be funded later with another SRF loan?

If the original assistance agreement funded any construction of the project, the date of the original assistance agreement counts for purposes of the exemption. If the original assistance agreement was only for planning and design, the date of that assistance agreement will count for purposes of the exemption only if there is a written commitment or expectation on the part of the assistance recipient to fund the remainder of the project with SRF funds.

7) What if the assistance agreement that was signed prior to January 17, 2014, funded the first phase of a multi-phase project, where the remaining phases will be funded by SRF assistance in the future?

In such a case, the phases of the project will be considered a single project if all construction necessary to complete the building or work, regardless of the number of contracts or assistance agreements involved, are closely related in purpose, time and place. However, there are many situations in which major construction activities are clearly undertaken in phases that are distinct in purpose, time, or place. In the case of distinct phases, projects with engineering plans and specifications approval or assistance agreements signed prior to January 17, 2014 would be excluded from AIS requirements while those approved/signed on January 17, 2014, or later would be covered by the AIS requirements.

8) What if a project has split funding from a non-SRF source?

Many States intend to fund projects with “split” funding, from the SRF program and from State or other programs. Based on the Act language in section 436, which requires that American iron and steel products be used in any project for the construction, alteration, maintenance, or repair of a public water system or treatment works receiving SRF funding between and including January 17, 2014 and September 30, 2014, any project that is funded in whole or in part with such funds must comply with the AIS requirement. A “project” consists of all construction necessary to complete the building or work regardless of the number of contracts or assistance agreements involved so long as all contracts and assistance agreements awarded are closely related in purpose, time and place. This precludes the intentional splitting of SRF projects into separate and smaller contracts or assistance agreements to avoid AIS coverage on some portion of a larger

project, particularly where the activities are integrally and proximately related to the whole. However, there are many situations in which major construction activities are clearly undertaken in separate phases that are distinct in purpose, time, or place, in which case, separate contracts or assistance agreement for SRF and State or other funding would carry separate requirements.

9) What about refinancing?

If a project began construction, financed from a non-SRF source, prior to January 17, 2014, but is refinanced through an SRF assistance agreement executed on or after January 17, 2014 and prior to October 1, 2014, AIS requirements will apply to all construction that occurs on or after January 17, 2014, through completion of construction, unless, as is likely, engineering plans and specifications were approved by a responsible state agency prior to January 17, 2014. There is no retroactive application of the AIS requirements where a refinancing occurs for a project that has completed construction prior to January 17, 2014.

10) Do the AIS requirements apply to any other EPA programs, besides the SRF program, such as the Tribal Set-aside grants or grants to the Territories and DC?

No, the AIS requirement only applies to funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12)

Covered Iron and Steel Products

11) What is an iron or steel product?

For purposes of the CWSRF and DWSRF projects that must comply with the AIS requirement, an iron or steel product is one of the following made primarily of iron or steel that is permanently incorporated into the public water system or treatment works:

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

12) What does the term ‘primarily iron or steel’ mean?

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

13) Can you provide an example of how to perform a cost determination?

For example, the iron portion of a fire hydrant would likely be the bonnet, body and shoe, and the cost then would include the pouring and casting to create those components. The other material costs would include non-iron and steel internal workings of the fire hydrant (i.e., stem, coupling, valve, seals, etc). However, the assembly of the internal workings into the hydrant body would not be included in this cost calculation. If one of the listed products is not made primarily of iron or steel, United States (US) provenance is not required. An exception to this definition is reinforced precast concrete, which is addressed in a later question.

14) If a product is composed of more than 50% iron or steel, but is not listed in the above list of items, must the item be produced in the US? Alternatively, must the iron or steel in such a product be produced in the US?

The answer to both question is no. Only items on the above list must be produced in the US. Additionally, the iron or steel in a non-listed item can be sourced from outside the US.

15) What is the definition of steel?

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

16) What does ‘produced in the United States’ mean?

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

material(s), if any, being applied as a coating are similarly not covered. Non-iron or steel components of an iron and steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-iron and steel components do not have to be of domestic origin.

17) Are the raw materials used in the production of iron or steel required to come from US sources?

No. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-US sources.

18) If an above listed item is primarily made of iron or steel, but is only at the construction site temporarily, must such an item be produced in the US?

No. Only the above listed products made primarily of iron or steel, permanently incorporated into the project must be produced in the US. For example trench boxes, scaffolding or equipment, which are removed from the project site upon completion of the project, are not required to be made of U.S. Iron or Steel.

19) What is the definition of ‘municipal castings’?

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

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

Meter Boxes;
Service Boxes;
Steel Hinged Hatches, Square and Rectangular;
Steel Riser Rings;
Trash receptacles;
Tree Grates;
Tree Guards;
Trench Grates; and
Valve Boxes, Covers and Risers.

20) What is ‘structural steel’?

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

21) What is a ‘construction material’ for purposes of the AIS requirement?

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

22) What is not considered a ‘construction material’ for purposes of the AIS requirement?

Mechanical and electrical components, equipment and systems are not considered construction materials. Mechanical equipment is typically that which has motorized parts and/or is powered by a motor. Electrical equipment is typically any machine powered by electricity and includes components that are part of the electrical distribution system.

The following examples (including their appurtenances necessary for their intended use and operation) are NOT considered construction materials: pumps, motors, gear reducers, drives (including variable frequency drives (VFDs)), electric/pneumatic/manual accessories used to operate valves (such as electric valve actuators), mixers, gates, motorized screens (such as traveling screens), blowers/aeration equipment, compressors, meters, sensors, controls and switches, supervisory control and

data acquisition (SCADA), membrane bioreactor systems, membrane filtration systems, filters, clarifiers and clarifier mechanisms, rakes, grinders, disinfection systems, presses (including belt presses), conveyors, cranes, HVAC (excluding ductwork), water heaters, heat exchangers, generators, cabinetry and housings (such as electrical boxes/enclosures), lighting fixtures, electrical conduit, emergency life systems, metal office furniture, shelving, laboratory equipment, analytical instrumentation, and dewatering equipment.

23) If the iron or steel is produced in the US, may other steps in the manufacturing process take place outside of the US, such as assembly?

No. Production in the US of the iron or steel used in a listed product requires that all manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives.

24) What processes must occur in the US to be compliant with the AIS requirement for reinforced precast concrete?

While reinforced precast concrete may not be at least 50% iron or steel, in this particular case, the reinforcing bar and wire must be produced in the US and meet the same standards as for any other iron or steel product. Additionally, the casting of the concrete product must take place in the US. The cement and other raw materials used in concrete production are not required to be of domestic origin.

If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered to be a construction material and must be produced in the US.

Compliance

25) How should an assistance recipient document compliance with the AIS requirement?

In order to ensure compliance with the AIS requirement, specific AIS contract language must be included in each contract, starting with the assistance agreement, all the way down to the purchase agreements. Sample language for assistance agreements and contracts can be found in Appendix 3 and 4.

EPA recommends the use of a step certification process, similar to one used by the Federal Highway Administration. The step certification process is a method to ensure that producers adhere to the AIS requirement and assistance recipients can verify that products comply with the AIS requirement. The process also establishes accountability and better enables States to take enforcement actions against violators.

Step certification creates a paper trail which documents the location of the manufacturing process involved with the production of steel and iron materials. A step certification is a process under which each handler (supplier, fabricator, manufacturer,

processor, etc) of the iron and steel products certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin. A certification can be quite simple. Typically, it includes the name of the manufacturer, the location of the manufacturing facility where the product or process took place (not its headquarters), a description of the product or item being delivered, and a signature by a manufacturer's responsible party. Attached, as Appendix 5, are sample certifications. These certifications should be collected and maintained by assistance recipients.

Alternatively, the final manufacturer that delivers the iron or steel product to the worksite, vendor, or contractor, may provide a certification asserting that all manufacturing processes occurred in the US. While this type of certification may be acceptable, it may not provide the same degree of assurance. Additional documentation may be needed if the certification is lacking important information. Step certification is the best practice.

26) How should a State ensure assistance recipients are complying with the AIS requirement?

In order to ensure compliance with the AIS requirement, States SRF programs must include specific AIS contract language in the assistance agreement. Sample language for assistance agreements can be found in Appendix 3.

States should also, as a best practice, conduct site visits of projects during construction and review documentation demonstrating proof of compliance which the assistance recipient has gathered.

27) What happens if a State or EPA finds a non-compliant iron and/or steel product permanently incorporated in the project?

If a potentially non-compliant product is identified, the State should notify the assistance recipient of the apparent unauthorized use of the non-domestic component, including a proposed corrective action, and should be given the opportunity to reply. If unauthorized use is confirmed, the State can take one or more of the following actions: request a waiver where appropriate; require the removal of the non-domestic item; or withhold payment for all or part of the project. Only EPA can issue waivers to authorize the use of a non-domestic item. EPA may use remedies available to it under the Clean Water Act, the Safe Drinking Water Act, and 40 CFR part 31 grant regulations, in the event of a violation of a grant term and condition.

It is recommended that the State work collaboratively with EPA to determine the appropriate corrective action, especially in cases where the State is the one who identifies the item in noncompliance or there is a disagreement with the assistance recipient.

If fraud, waste, abuse, or any violation of the law is suspected, the Office of Inspector General (OIG) should be contacted immediately. The OIG can be reached at 1-

888-546-8740 or OIG_Hotline@epa.gov. More information can be found at this website: <http://www.epa.gov/oig/hotline.htm>.

28) How do international trade agreements affect the implementation of the AIS requirements?

The AIS provision applies in a manner consistent with United States obligations under international agreements. Typically, these obligations only apply to direct procurement by the entities that are signatories to such agreements. In general, SRF assistance recipients are not signatories to such agreements, so these agreements have no impact on this AIS provision. In the few instances where such an agreement applies to a municipality, that municipality is under the obligation to determine its applicability and requirements and document the actions taken to comply for the State.

Waiver Process

The statute permits EPA to issue waivers for a case or category of cases where EPA finds (1) that applying these requirements would be inconsistent with the public interest; (2) iron and steel products are not produced in the US in sufficient and reasonably available quantities and of a satisfactory quality; or (3) inclusion of iron and steel products produced in the US will increase the cost of the overall project by more than 25 percent.

In order to implement the AIS requirements, EPA has developed an approach to allow for effective and efficient implementation of the waiver process to allow projects to proceed in a timely manner. The framework described below will allow States, on behalf of the assistance recipients, to apply for waivers of the AIS requirement directly to EPA Headquarters. Only waiver requests received from states will be considered. Pursuant to the Act, EPA has the responsibility to make findings as to the issuance of waivers to the AIS requirements.

Definitions

The following terms are critical to the interpretation and implementation of the AIS requirements and apply to the process described in this memorandum:

Reasonably Available Quantity: The quantity of iron or steel products is available or will be available at the time needed and place needed, and in the proper form or specification as specified in the project plans and design.

Satisfactory Quality: The quality of iron or steel products, as specified in the project plans and designs.

Assistance Recipient: A borrower or grantee that receives funding from a State CWSRF or DWSRF program.

Step-By-Step Waiver Process

Application by Assistance Recipient

Each local entity that receives SRF water infrastructure financial assistance is required by section 436 of the Act to use American made iron and steel products in the construction of its project. However, the recipient may request a waiver. Until a waiver is granted by EPA, the AIS requirement stands, except as noted above with respect to municipalities covered by international agreements.

The waiver process begins with the SRF assistance recipient. In order to fulfill the AIS requirement, the assistance recipient must in good faith design the project (where applicable) and solicit bids for construction with American made iron and steel products. It is essential that the assistance recipient include the AIS terms in any request for proposals or solicitations for bids, and in all contracts (see Appendix 3 for sample construction contract language). The assistance recipient may receive a waiver at any point before, during, or after the bid process, if one or more of three conditions is met:

1. Applying the American Iron and Steel requirements of the Act would be inconsistent with the public interest;
2. Iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or
3. Inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Proper and sufficient documentation must be provided by the assistance recipient. A checklist detailing the types of information required for a waiver to be processed is attached as Appendix 1.

Additionally, it is strongly encouraged that assistance recipients hold pre-bid conferences with potential bidders. A pre-bid conference can help to identify iron and steel products needed to complete the project as described in the plans and specifications that may not be available from domestic sources. It may also identify the need to seek a waiver prior to bid, and can help inform the recipient on compliance options.

In order to apply for a project waiver, the assistance recipient should email the request in the form of a Word document (.doc) to the State SRF program. It is strongly recommended that the State designate a single person for all AIS communications. The State SRF designee will review the application for the waiver and determine whether the necessary information has been included. Once the waiver application is complete, the State designee will forward the application to either of two email addresses. For CWSRF waiver requests, please send the application to: cwsrfwaiver@epa.gov. For DWSRF waiver requests, please send the application to: dwsrfwaiver@epa.gov.

Evaluation by EPA

After receiving an application for waiver of the AIS requirements, EPA Headquarters will publish the request on its website for 15 days and receive informal comment. EPA Headquarters will then use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to determine whether or not to grant the waiver.

In the event that EPA finds that adequate documentation and justification has been submitted, the Administrator may grant a waiver to the assistance recipient. EPA will notify the State designee that a waiver request has been approved or denied as soon as such a decision has been made. Granting such a waiver is a three-step process:

1. Posting – After receiving an application for a waiver, EPA is required to publish the application and all material submitted with the application on EPA's website for 15 days. During that period, the public will have the opportunity to review the request and provide informal comment to EPA. The website can be found at: http://water.epa.gov/grants_funding/aisrequirement.cfm
2. Evaluation – After receiving an application for waiver of the AIS requirements, EPA Headquarters will use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to determine whether or not to grant the waiver.
3. Signature of waiver approval by the Administrator or another agency official with delegated authority – As soon as the waiver is signed and dated, EPA will notify the State SRF program, and post the signed waiver on our website. The assistance recipient should keep a copy of the signed waiver in its project files.

Public Interest Waivers

EPA has the authority to issue public interest waivers. Evaluation of a public interest waiver request may be more complicated than that of other waiver requests so they may take more time than other waiver requests for a decision to be made. An example of a public interest waiver that might be issued could be for a community that has standardized on a particular type or manufacturer of a valve because of its performance to meet their specifications. Switching to an alternative valve may require staff to be trained on the new equipment and additional spare parts would need to be purchased and stocked, existing valves may need to be unnecessarily replaced, and portions of the system may need to be redesigned. Therefore, requiring the community to install an alternative valve would be inconsistent with public interest.

EPA also has the authority to issue a public interest waiver that covers categories of products that might apply to all projects.

EPA reserves the right to issue national waivers that may apply to particular classes of assistance recipients, particular classes of projects, or particular categories of iron or steel products. EPA may develop national or (US geographic) regional categorical waivers through the identification of similar circumstances in the detailed justifications presented to EPA in a waiver request or requests. EPA may issue a national waiver based on policy decisions regarding the public's interest or a determination that a particular item is not produced domestically in reasonably available quantities or of a sufficient quality. In such cases, EPA may determine it is necessary to issue a national waiver.

If you have any questions concerning the contents of this memorandum, you may contact us, or have your staff contact Jordan Dorfman, Attorney-Advisor, State Revolving Fund Branch, Municipal Support Division, at dorfman.jordan@epa.gov or (202) 564-0614 or Kiri Anderer, Environmental Engineer, Infrastructure Branch, Drinking Water Protection Division, at anderer.kirsten@epa.gov or (202) 564-3134.

Attachments

Appendix 1: Information Checklist for Waiver Request

The purpose of this checklist is to help ensure that all appropriate and necessary information is submitted to EPA. EPA recommends that States review this checklist carefully and provide all appropriate information to EPA. This checklist is for informational purposes only and does not need to be included as part of a waiver application.

Items	✓	Notes
<p>General</p> <ul style="list-style-type: none"> • Waiver request includes the following information: <ul style="list-style-type: none"> — Description of the foreign and domestic construction materials — Unit of measure — Quantity — Price — Time of delivery or availability — Location of the construction project — Name and address of the proposed supplier — A detailed justification for the use of foreign construction materials • Waiver request was submitted according to the instructions in the memorandum • Assistance recipient made a good faith effort to solicit bids for domestic iron and steel products, as demonstrated by language in requests for proposals, contracts, and communications with the prime contractor 		
<p>Cost Waiver Requests</p> <ul style="list-style-type: none"> • Waiver request includes the following information: <ul style="list-style-type: none"> — Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products — Relevant excerpts from the bid documents used by the contractors to complete the comparison — Supporting documentation indicating that the contractor made a reasonable survey of the market, such as a description of the process for identifying suppliers and a list of contacted suppliers 		
<p>Availability Waiver Requests</p> <ul style="list-style-type: none"> • Waiver request includes the following supporting documentation necessary to demonstrate the availability, quantity, and/or quality of the materials for which the waiver is requested: <ul style="list-style-type: none"> — Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery date for construction materials — Documentation of the assistance recipient's efforts to find available domestic sources, such as a description of the process for identifying suppliers and a list of contacted suppliers. — Project schedule — Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials • Waiver request includes a statement from the prime contractor and/or supplier confirming the non-availability of the domestic construction materials for which the waiver is sought • Has the State received other waiver requests for the materials described in this waiver request, for comparable projects? 		

Appendix 2: HQ Review Checklist for Waiver Request

Instructions: To be completed by EPA. Review all waiver requests using the questions in the checklist, and mark the appropriate box as Yes, No or N/A. Marks that fall inside the shaded boxes may be grounds for denying the waiver. If none of your review markings fall into a shaded box, the waiver is eligible for approval if it indicates that one or more of the following conditions applies to the domestic product for which the waiver is sought:

1. The iron and/or steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.
2. The inclusion of iron and/or steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Review Items	Yes	No	N/A	Comments
Cost Waiver Requests				
• Does the waiver request include the following information?				
— Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products				
— Relevant excerpts from the bid documents used by the contractors to complete the comparison				
— A sufficient number of bid documents or pricing information from domestic sources to constitute a reasonable survey of the market				
• Does the Total Domestic Project exceed the Total Foreign Project Cost by more than 25%?				
Availability Waiver Requests				
• Does the waiver request include supporting documentation sufficient to show the availability, quantity, and/or quality of the iron and/or steel product for which the waiver is requested?				
— Supplier information or other documentation indicating availability/delivery date for materials				
— Project schedule				
— Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of materials				
• Does supporting documentation provide sufficient evidence that the contractors made a reasonable effort to locate domestic suppliers of materials, such as a description of the process for identifying suppliers and a list of contacted suppliers?				
• Based on the materials delivery/availability date indicated in the supporting documentation, will the materials be unavailable when they are needed according to the project schedule? (By item, list schedule date and domestic delivery quote date or other relevant information)				
• Is EPA aware of any other evidence indicating the non-availability of the materials for which the waiver is requested?				
Examples include:				
— Multiple waiver requests for the materials described in this waiver request, for comparable projects in the same State				
— Multiple waiver requests for the materials described in this waiver request, for comparable projects in other States				
— Correspondence with construction trade associations indicating the non-availability of the materials				
• Are the available domestic materials indicated in the bid documents of inadequate quality compared those required by the project plans, specifications, and/or permits?				

Appendix 3: Example Loan Agreement Language

ALL ASSISTANCE AGREEMENT MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE AIS REQUIREMENT. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN SRF ASSISTANCE AGREEMENTS. EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THIS CLAUSE WITH RESPECT TO STATE LAW:

Comply with all federal requirements applicable to the Loan (including those imposed by the 2014 Appropriations Act and related SRF Policy Guidelines) which the Participant understands includes, among other, requirements that all of the iron and steel products used in the Project are to be produced in the United States (“American Iron and Steel Requirement”) unless (i) the Participant has requested and obtained a waiver from the Agency pertaining to the Project or (ii) the Finance Authority has otherwise advised the Participant in writing that the American Iron and Steel Requirement is not applicable to the Project.

Comply with all record keeping and reporting requirements under the Clean Water Act/Safe Drinking Water Act, including any reports required by a Federal agency or the Finance Authority such as performance indicators of program deliverables, information on costs and project progress. The Participant understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities and (ii) failure to comply with the Clean Water Act/Safe Drinking Water Act and this Agreement may be a default hereunder that results in a repayment of the Loan in advance of the maturity of the Bonds and/or other remedial actions.

Appendix 4: Sample Construction Contract Language

ALL CONTRACTS MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE AIS REQUIREMENT. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN ALL CONTRACTS IN PROJECTS THAT USE SRF FUNDS. EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THIS CLAUSE WITH RESPECT TO STATE OR LOCAL LAW:

The Contractor acknowledges to and for the benefit of the City of _____ (“Purchaser”) and the _____ (the “State”) that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as “American Iron and Steel;” that requires all of the iron and steel products used in the project to be produced in the United States (“American Iron and Steel Requirement”) including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Appendix 5: Sample Certifications

The following information is provided as a sample letter of **step** certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXX)

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

Item, Products and/or Materials:

1. XXXX
2. XXXX
3. XXXX

Such process took place at the following location:

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

Signed by company representative

The following information is provided as a sample letter of certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. XXXX
2. XXXX
3. XXXX

Such process took place at the following location:

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

Signed by company representative

This content is from the eCFR and is authoritative but unofficial.

Title 2 — Federal Financial Assistance

Subtitle B — Federal Agency Regulations for Grants and Agreements

Chapter XV — Environmental Protection Agency

Part 1532 — Nonprocurement Debarment and Suspension

Authority: 33 U.S.C. 1251 *et seq.*; 42 U.S.C. 7401 *et seq.*; Sec. 2455, Pub. L. 103-355, 108 Stat. 3327 (31 U.S.C. 6101 note); E.O. 11738 (3 CFR, 1973 Comp., p. 799); E.O. 12549 (3 CFR, 1986 Comp., p. 189); E.O. 12689 (3 CFR, 1989 Comp., p. 235).

Source: 72 FR 2422, Jan. 19, 2007, unless otherwise noted.

Subpart J Statutory Disqualification and Reinstatement Under the Clean Air Act and Clean Water Act

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§ 1532.1600 What definitions apply specifically to actions under this subpart?

Subpart J—Statutory Disqualification and Reinstatement Under the Clean Air Act and Clean Water Act

§ 1532.1100 What does this subpart do?

This subpart explains how the EPA administers section 306 of the Clean Air Act (CAA) (42 U.S.C. 7606) and section 508 of the Clean Water Act (CWA) (33 U.S.C. 1368), which disqualify persons convicted for certain offenses under those statutes (see § 1532.1105), from eligibility to receive certain contracts, subcontracts, assistance, loans and other benefits (see coverage under the Federal Acquisition Regulation (FAR), 48 CFR part 9, subpart 9.4 and subparts A through I of 2 CFR part 180). It also explains: the procedures for seeking reinstatement of a person's eligibility under the CAA or CWA; the criteria and standards that apply to EPA's decision-making process; and requirements of award officials and others involved in Federal procurement and nonprocurement activities in carrying out their responsibilities under the CAA and CWA.

§ 1532.1105 Does this subpart apply to me?

- (a) Portions of this subpart apply to you if you are convicted, or likely to be convicted, of any offense under section 7413(c) of the CAA or section 1319(c) of the CWA.
- (b) Portions of this subpart apply to you if you are the EPA debarring official, a Federal procurement or nonprocurement award official, a participant in a Federal procurement or nonprocurement program that is precluded from entering into a covered transaction with a person disqualified under the CAA or CWA, or if you are a Federal department or agency anticipating issuing an exception to a person otherwise disqualified under the CAA or CWA.

§ 1532.1110 How will a CAA or CWA conviction affect my eligibility to participate in Federal contracts, subcontracts, assistance, loans and other benefits?

If you are convicted of any offense described in § 1532.1105, you are automatically disqualified from eligibility to receive any contract, subcontract, assistance, sub-assistance, loan or other nonprocurement benefit or transaction that is prohibited by a Federal department or agency under the Governmentwide debarment and suspension system (i.e. covered transactions under subpart A through I of 2 CFR part 180, or prohibited awards under 48 CFR part 9, subpart 9.4), if you:

- (a) Will perform any part of the transaction or award at the facility giving rise to your conviction (called the violating facility); and
- (b) You own, lease or supervise the violating facility.

§ 1532.1115 Can the EPA extend a CAA or CWA disqualification to other facilities?

The CAA specifically authorizes the EPA to extend a CAA disqualification to other facilities that are owned or operated by the convicted person. The EPA also has authority under subparts A through I of 2 CFR part 180, or under 48 CFR part 9, subpart 9.4, to take discretionary suspension and debarment actions on the basis of misconduct leading to a CAA or CWA conviction, or for activities that the EPA debarring official believes were designed to improperly circumvent a CAA or CWA disqualification.

§ 1532.1120 What is the purpose of CAA or CWA disqualification?

As provided for in Executive Order 11738 (3 CFR, 1973 Comp., p. 799), the purpose of CAA and CWA disqualification is to enforce the Federal Government's policy of undertaking Federal procurement and nonprocurement activities in a manner that improves and enhances environmental quality by promoting effective enforcement of the CAA or CWA.

§ 1532.1125 How do award officials and others know if I am disqualified?

If you are convicted under these statutes, the EPA enters your name and address and that of the violating facility into the Excluded Parties List System (EPLS) as soon as possible after the EPA learns of your conviction. In addition, the EPA enters other information describing the nature of your disqualification. Federal award officials and others who administer Federal programs consult the EPLS before entering into or approving procurement and nonprocurement transactions. Anyone may access the EPLS through the internet, currently at <http://www.epls.gov>.

§ 1532.1130 How does disqualification under the CAA or CWA differ from a Federal discretionary suspension or debarment action?

- (a) CAA and CWA disqualifications are exclusions mandated by statute. In contrast, suspensions and debarments imposed under subparts A through I of 2 CFR part 180 or under 48 CFR part 9, subpart 9.4, are exclusions imposed at the discretion of Federal suspending or debarring officials. This means that if you are convicted of violating the CAA or CWA provisions described under § 1532.1105, ordinarily your name and that of the violating facility is placed into the EPLS before you receive a confirmation notice of the listing, or have the opportunity to discuss the disqualification with, or seek reinstatement from, the EPA.
- (b) CAA or CWA disqualification applies to both the person convicted of the offense, and to the violating facility during performance of an award or covered transaction under the Federal procurement and nonprocurement suspension and debarment system. It is the EPA's policy to carry out CAA and CWA disqualifications in a manner which integrates the disqualifications into the Governmentwide suspension and debarment system. Whenever the EPA determines that the risk presented to Federal procurement and nonprocurement activities on the basis of the misconduct which gives rise to a person's CAA or CWA conviction exceeds the coverage afforded by mandatory disqualification, the EPA may use its discretionary authority to suspend or debar a person under subparts A through I of 2 CFR part 180, or under 48 CFR part 9, subpart 9.4.

§ 1532.1135 Does CAA or CWA disqualification mean that I must remain ineligible?

You must remain ineligible until the EPA debarring official certifies that the condition giving rise to your conviction has been corrected. If you desire to have your disqualification terminated, you must submit a written request for reinstatement to the EPA debarring official and support your request with persuasive documentation. For information about the process for reinstatement see §§ 1532.1205 and 1532.1300.

§ 1532.1140 Can an exception be made to allow me to receive an award even though I may be disqualified?

- (a) After consulting with the EPA debarring official, the head of any Federal department or agency (or designee) may exempt any particular award or a class of awards with that department or agency from CAA or CWA disqualification. In the event an exemption is granted, the exemption must:

- (1) Be in writing; and
 - (2) State why the exemption is in the paramount interests of the United States.
- (b) In the event an exemption is granted, the exempting department or agency must send a copy of the exemption decision to the EPA debarring official for inclusion in the official record.

§ 1532.1200 How will I know if I am disqualified under the CAA or CWA?

There may be several ways that you learn about your disqualification. You are legally on notice by the statutes that a criminal conviction the CAA or CWA automatically disqualifies you. As a practical matter, you may learn about your disqualification from your defense counsel, a Federal contract or award official, or from someone else who sees your name in the EPLS. As a courtesy, the EPA will attempt to notify you and the owner, lessor or supervisor of the violating facility that your names have been entered into the EPLS. The EPA will inform you of the procedures for seeking reinstatement and give you the name of a person you can contact to discuss your reinstatement request.

§ 1532.1205 What procedures must I follow to have my procurement and nonprocurement eligibility reinstated under the CAA or CWA?

- (a) You must submit a written request for reinstatement to the EPA debarring official stating what you believe the conditions were that led to your conviction, and how those conditions have been corrected, relieved or addressed. Your request must include documentation sufficient to support all material assertions you make. The debarring official must determine that all the technical and non-technical causes, conditions and consequences of your actions have been sufficiently addressed so that the Government can confidently conduct future business activities with you, and that your future operations will be conducted in compliance with the CAA and CWA.
- (b) You may begin the reinstatement process by having informal discussions with the EPA representative named in your notification of listing. Having informal dialogue with that person will make you aware of the EPA concerns that must be addressed. The EPA representative is not required to negotiate conditions for your reinstatement. However, beginning the reinstatement process with informal dialogue increases the chance of achieving a favorable outcome, and avoids unnecessary delay that may result from an incomplete or inadequate reinstatement request. It may also allow you to resolve your disqualification by reaching an agreement with the EPA debarring official under informal procedures. Using your informal option first does not prevent you from submitting a formal reinstatement request with the debarring official at any time.

§ 1532.1210 Will anyone else provide information to the EPA debarring official concerning my reinstatement request?

If you request reinstatement under § 1532.1205, the EPA debarring official may obtain review and comment on your request by anyone who may have information about, or an official interest in, the matter. For example, the debarring official may consult with the EPA Regional offices, the Department of Justice or other Federal agencies, or state, tribal or local governments. The EPA debarring official will make sure that you have an opportunity to address important allegations or information contained in the administrative record before making a final decision on your request for reinstatement.

§ 1532.1215 What happens if I disagree with the information provided by others to the EPA debarring official on my reinstatement request?

- (a) If your reinstatement request is based on factual information (as opposed to a legal matter or discretionary conclusion) that is different from the information provided by others or otherwise contained in the administrative record, the debarring official will decide whether those facts are genuinely in dispute, and material to making a decision. If so, a fact-finding proceeding will be conducted in accordance with 2 CFR 180.830 through 180.840, and the debarring official will consider the findings when making a decision on your reinstatement request.
- (b) If the basis for your disagreement with the information contained in the administrative record relates to a legal issue or discretionary conclusion, or is not a genuine dispute over a material fact, you will not have a fact-finding proceeding. However, the debarring official will allow you ample opportunity to support your position for the record and present matters in opposition to your continued disqualification. A summary of any information you provide orally, if not already recorded, should also be submitted to the debarring official in writing to assure that it is preserved for the debarring official's consideration and the administrative record.

§ 1532.1220 What will the EPA debarring official consider in making a decision on my reinstatement request?

- (a) The EPA debarring official will consider all information and arguments contained in the administrative record in support of, or in opposition to, your request for reinstatement, including any findings of material fact.
- (b) The debarring official will also consider any mitigating or aggravating factors that may relate to your conviction or the circumstances surrounding it, including any of those factors that appear in 2 CFR 180.860 that may apply to your situation.
- (c) Finally, if disqualification applies to a business entity, the debarring official will consider any corporate or business attitude, policies, practices and procedures that contributed to the events leading to conviction, or that may have been implemented since the date of the misconduct or conviction. You can obtain any current policy directives issued by the EPA that apply to CAA or CWA disqualification or reinstatement by contacting the Office of the EPA Debarring Official, U.S. EPA, Office of Grants and Debarment (3901R), 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

§ 1532.1225 When will the EPA debarring official make a decision on my reinstatement request?

- (a) The EPA debarring official will make a decision regarding your reinstatement request under § 1532.1205(a), when the administrative record is complete, and he or she can determine whether the condition giving rise to the CAA or CWA conviction has been corrected-usually within 45 days of closing the administrative record.
- (b) A reinstatement request is not officially before the debarring official while you are having informal discussions under § 1532.1205(b).

§ 1532.1230 How will the EPA debarring official notify me of the reinstatement decision?

The EPA debarring official will notify you of the reinstatement decision in writing, using the same methods for communicating debarment or suspension action notices under 2 CFR 180.615.

§ 1532.1300 Can I resolve my eligibility status under terms of an administrative agreement without having to submit a formal reinstatement request?

- (a) The EPA debarring official may, at any time, resolve your CAA or CWA eligibility status under the terms of an administrative agreement. Ordinarily, the debarring official will not make an offer to you for reinstatement until after the administrative record for decision is complete, or contains enough information to enable him or her to make an informed decision in the matter.
- (b) Any resolution of your eligibility status under the CAA or CWA resulting from an administrative agreement must include a certification that the condition giving rise to the conviction has been corrected.
- (c) The EPA debarring official may enter into an administrative agreement to resolve CAA or CWA disqualification issues as part of a comprehensive criminal plea, civil or administrative agreement when it is in the best interest of the United States to do so.

§ 1532.1305 What are the consequences if I mislead the EPA in seeking reinstatement or fail to comply with my administrative agreement?

- (a) Any certification of correction issued by the EPA debarring official whether the certification results from a reinstatement decision under §§ 1532.1205(a) and 1532.1230, or from an administrative agreement under §§ 1532.1205(b) and 1532.1300, is conditioned upon the accuracy of the information, representations or assurances made during development of the administrative record.
- (b) If the EPA debarring official finds that he or she has certified correction of the condition giving rise to a CAA or CWA conviction or violation on the basis of a false, misleading, incomplete or inaccurate information; or if a person fails to comply with material condition of an administrative agreement, the EPA debarring official may take suspension or debarment action against the person(s) responsible for the misinformation or noncompliance with the agreement as appropriate. If anyone provides false, inaccurate, incomplete or misleading information to EPA in an attempt to obtain reinstatement, the EPA debarring official will refer the matter to the EPA Office of Inspector General for potential criminal or civil action.

§ 1532.1400 How may I appeal a decision denying my request for reinstatement?

- (a) If the EPA debarring official denies your request for reinstatement under the CAA or CWA, you can ask for review of the debarring official's decision in two ways:
 - (1) You may ask the debarring official to reconsider the decision for material errors of fact or law that you believe will change the outcome of the matter; and/ or
 - (2) You may request the Director, Office of Grants and Debarment (OGD Director), to review the debarring official's denial within 30 days of your receipt of the debarring official's decision under § 1532.1230 or paragraph (a)(1) of this section. However, the OGD Director can reverse the debarring official's decision denying reinstatement only where the OGD Director finds that there is a clear error of material fact or law, or where the OGD Director finds that the debarring official's decision was arbitrary, capricious, or an abuse of discretion.
- (b) A request for review under this section must be in writing and state the specific findings you believe to be in error and include the reasons or legal bases for your position.
- (c) A review under this section is solely within the discretion of the OGD Director.

- (d) The OGD Director must notify you of his or her decision under this section, in writing, using the notice procedures at 2 CFR 180.615 and 180.975.

§ 1532.1500 If I am reinstated, when will my name be removed from the EPLS?

If your eligibility for procurement and nonprocurement participation is restored under the CAA or CWA, whether by decision, appeal, or by administrative agreement, the EPA will remove your name and that of the violating facility from the EPLS, generally within 5 working days of your reinstatement.

§ 1532.1600 What definitions apply specifically to actions under this subpart?

In addition to definitions under subpart A through I of 2 CFR part 180 that apply to this part as a whole, the following two definitions apply specifically to CAA and CWA disqualifications under this subpart:

- (a) Person means an individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state, or any interstate body.
- (b) Violating facility means any building, plant, installation, structure, mine, vessel, floating craft, location or site of operations that gives rise to a CAA or CWA conviction, and is a location at which or from which a Federal contract, subcontract, loan, assistance award or other covered transactions may be performed. If a site of operations giving rise to a CAA or CWA conviction contains or includes more than one building, plant, installation, structure, mine, vessel, floating craft, or other operational element, the entire location or site of operation is regarded as the violating facility unless otherwise limited by the EPA.

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Executive Orders

Executive Order 11738--Providing for administration of the Clean Air Act and the Federal Water Pollution Control Act with respect to Federal contracts, grants, or loans

Source: The provisions of Executive Order 11738 of Sept. 10, 1973, appear at 38 FR 25161, 3 CFR, 1971-1975 Comp., p. 799, unless otherwise noted.

By virtue of the authority vested in me by the provisions of the Clean Air Act, as added by the Clean Air Amendments of 1970 (Public Law 91-604), and the Federal Water Pollution Control Act (33 U.S.C. 1251 *et seq.*), particularly section 508 of that Act as added by the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), it is hereby ordered as follows:

Section 1. Policy. It is the policy of the Federal Government to improve and enhance environmental quality. In furtherance of that policy, the program prescribed in this Order is instituted to assure that each Federal agency empowered to enter into contracts for the procurement of goods, materials, or services and each Federal agency empowered to extend Federal assistance by way of grant, loan, or contract shall undertake such procurement and assistance activities in a manner that will result in effective enforcement of the Clean Air Act (hereinafter referred to as "the Air Act") and the Federal Water Pollution Control Act (hereinafter referred to as "the Water Act").

Sec. 2. Designation of Facilities. (a) The Administrator of the Environmental Protection Agency (hereinafter referred to as "the Administrator") shall be responsible for the attainment of the purposes and objectives of this Order.

(b) In carrying out his responsibilities under this Order, the Administrator shall, in conformity with all applicable requirements of law, designate facilities which have given rise to a conviction for an offense under section 113(c)(1) of the Air Act or section 309(c) of the Water Act. The Administrator shall, from time to time, publish and circulate to all Federal agencies lists of those facilities, together with the names and addresses of the persons who have been convicted of such offenses. Whenever the Administrator determines that the condition which gave rise to a conviction has been corrected, he shall promptly remove the facility and the name and address of the person concerned from the list.

Sec. 3. Contracts, Grants, or Loans. (a) Except as provided in section 8 of this Order, no Federal agency shall enter into any contract for the procurement of goods, materials, or services which is to be performed in whole or in part in a facility then designated by the Administrator pursuant to section 2.

(b) Except as provided in section 8 of this Order, no Federal agency authorized to extend Federal assistance by way of grant, loan, or contract shall extend such assistance in any case in which it is to be used to support any activity or program involving the use of a facility then designated by the Administrator pursuant to section 2.

Sec. 4. *Procurement, Grant, and Loan Regulations.* The Federal Procurement Regulations, the Armed Services Procurement Regulations, and, to the extent necessary, any supplemental or comparable regulations issued by any agency of the Executive Branch shall, following consultation with the Administrator, be amended to require, as a condition of entering into, renewing, or extending any contract for the procurement of goods, materials, or services or extending any assistance by way of grant, loan, or contract, inclusion of a provision requiring compliance with the Air Act, the Water Act, and standards issued pursuant thereto in the facilities in which the contract is to be performed, or which are involved in the activity or program to receive assistance.

Sec. 5. *Rules and Regulations.* The Administrator shall issue such rules, regulations, standards, and guidelines as he may deem necessary or appropriate to carry out the purposes of this Order.

Sec. 6. *Cooperation and Assistance.* The head of each Federal agency shall take such steps as may be necessary to insure that all officers and employees of his agency whose duties entail compliance or comparable functions with respect to contracts, grants, and loans are familiar with the provisions of this Order. In addition to any other appropriate action, such officers and employees shall report promptly any condition in a facility which may involve noncompliance with the Air Act or the Water Act or any rules, regulations, standards, or guidelines issued pursuant to this Order to the head of the agency, who shall transmit such reports to the Administrator.

Sec. 7. *Enforcement.* The Administrator may recommend to the Department of Justice or other appropriate agency that legal proceedings be brought or other appropriate action be taken whenever he becomes aware of a breach of any provision required, under the amendments issued pursuant to section 4 of this Order, to be included in a contract or other agreement.

Sec. 8. *Exemptions--Reports to Congress.* (a) **Upon a determination that the paramount interest of the United States so requires--**

(1) The head of a Federal agency may exempt any contract, grant, or loan, and, following consultation with the Administrator, any class of contracts, grants or loans from the provisions of this Order. In any such case, the head of the Federal agency granting such exemption shall (A) promptly notify the Administrator of such exemption and the justification therefore; (B) review the necessity for each such exemption annually; and (C) report to the Administrator annually all such exemptions in effect. Exemptions granted pursuant to this section shall be for a period not

to exceed one year. Additional exemptions may be granted for periods not to exceed one year upon the making of a new determination by the head of the Federal agency concerned.

(2) The Administrator may, by rule or regulation, exempt any or all Federal agencies from any or all of the provisions of this Order with respect to any class or classes of contracts, grants, or loans, which (A) involve less than specified dollar amounts, or (B) have a minimal potential impact upon the environment, or (C) involve persons who are not prime contractors or direct recipients of Federal assistance by way of contracts, grants, or loans.

(b) Federal agencies shall reconsider any exemption granted under subsection (a) whenever requested to do so by the Administrator.

(c) The Administrator shall annually notify the President and the Congress of all exemptions granted, or in effect, under this Order during the preceding year.

Sec. 9. *Related Actions.* The imposition of any sanction or penalty under or pursuant to this Order shall not relieve any person of any legal duty to comply with any provisions of the Air Act or the Water Act.

Sec. 10. *Applicability.* This Order shall not apply to contracts, grants, or loans involving the use of facilities located outside the United States.

Sec. 11. *Uniformity.* Rules, regulations, standards, and guidelines issued pursuant to this order and section 508 of the Water Act shall, to the maximum extent feasible, be uniform with regulations issued pursuant to this order, Executive Order No. 11602 of June 29, 1971, and section 306 of the Air Act.

Sec. 12. *Order Superseded.* Executive Order No. 11602 of June 29, 1971, is hereby superseded.

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Office of the Assistant Secretary for Administration & Management

Age Discrimination Act of 1975

(42 U.S.C. Sections 6101-6107)

Section 6101. Statement of purpose

It is the purpose of this chapter to prohibit discrimination on the basis of age in programs or activities receiving Federal financial assistance.

Section 6102. Prohibition of discrimination

Pursuant to regulations prescribed under section 6103 of this title, and except as provided by section 6103(b) of this title and section 6103(c) of this title, no person in the United States shall, on the basis of age, be excluded from participation, in be denied the benefits of, or be subjected to discrimination under, any program or activity receiving Federal financial assistance.

Section 6103. Regulations

(a) Publication in Federal Register of proposed general regulations, final general regulations, and anti-discrimination regulations; effective date.

(1) Not later than one year after the transmission of the report required by section 6106(b) of this title, or two and one-half years after November 28, 1975, whichever occurs first, the Secretary of Health and Human Services shall publish in the Federal Register proposed general regulations to carry out the provisions of section 6102 of this title.

(2)(A) The Secretary shall not publish such proposed general regulations until the expiration of a period comprised of--

(i) the forty-five day period specified in section 6016(e) of this title, and

(ii) an additional forty-five day period, immediately following the period described in clause (i), during which any committee of the Congress having jurisdiction over the subject matter involved may conduct hearings with respect to the report which the Commission is required to transmit under section 6106(d) of this title, and with respect to the comments and recommendations submitted by Federal departments and agencies under section 6106(e) of this title.

(B) The forty-five day period specified in subparagraph (A)(ii) shall include only days during which both Houses of the Congress are in session.

(3) Not later than ninety days after the Secretary publishes proposed regulations under paragraph (1), the Secretary shall publish in the Federal Register final general regulations to carry out the provisions of section 6106(e) of this title, after taking into consideration any comments received by the Secretary with respect to the regulations proposed under paragraph (1).

(4) Not later than ninety days after the Secretary publishes final general regulations under paragraph (a)(3), the head of each federal department or agency which extends Federal financial assistance to any program or activity by way of grant, entitlement, loan, or contract other than a contract of insurance or guaranty, shall transmit to the Secretary and publish in the Federal Register proposed regulations to carry out the provisions of section 6102 of this title and to provide appropriate investigative, conciliation, and enforcement procedures. Such regulations shall be consistent with the final general regulations issued by the Secretary, and shall not become effective until approved by the Secretary.

(5) Notwithstanding any other provision of this section, no regulations issued pursuant to this section shall be effective before July 1, 1979.

(b) Nonviolative actions; program or activity exemption.

(1) it shall not be a violation of any provision of this chapter, or of any regulation issued under this chapter, for any person to take any action otherwise prohibited by the provisions of section 6102 of this title if, in the program or activity involved--

(A) Such action reasonably takes into account age as a factor necessary to the normal operation or the achievement of any statutory objective of such program or activity; or

(B) the differentiation made by such action is based upon reasonable factors other than age.

(2) The provisions of this chapter shall not apply to any program or activity established under authority of any law which (A) provides any benefits or assistance to persons based upon the age of such persons; or (B) establishes criteria for participation in age-related terms or describes intended beneficiaries or target groups in such terms.

(c) Employment practices and labor-management joint apprenticeship training program exemptions; Age Discrimination in Employment Act unaffected.

(1) Except with respect to any program or activity receiving Federal financial assistance for public service employment under the Workforce Investment Act of 1998 (29 USC 9201 *et seq.*), nothing in this chapter shall be construed to authorize action under this chapter by any Federal department or agency with respect to any employment practice of any employer, employment agency, or labor organization, or with respect to any labor-management joint apprenticeship training program.

(2) Nothing in this chapter shall be construed to amend or modify the Age Discrimination in Employment Act of 1967 (29 U.S.C. §§ 621-634) as amended, or to affect the rights or responsibilities of any person or party pursuant to such Act.

Section 6104. Enforcement

(a) Methods of achieving compliance with regulations.

The head of any Federal department or agency who prescribes regulations under section 6103 of this title, may seek to achieve compliance with any regulation--

(1) by terminating, or refusing to grant or to continue, assistance under the program or activity involved to any recipient with respect to whom there has been an express finding on the record, after reasonable notice and opportunity for hearing, of a failure to comply with any such regulation; or

(2) by any other means authorized by law.

(b) Limitations on termination of, or on refusal to grant or to continue, assistance; disbursement of withheld funds to achiever agencies.

Any termination of, or refusal to grant or to continue, assistance under subsection (a)(1) of this section shall be limited to the particular political entity or other recipient with respect to which a finding has been made under subsection (a)(1) of this section. Any such termination or refusal shall be limited to its effect to the particular program or activity, or part of such program or activity, with respect to which such finding has been made. No such termination or refusal shall be based in whole or in part on any finding with respect to any program or activity which does not receive Federal financial assistance. Whenever the head of any Federal department or agency who prescribes regulations under section 6103 of this title withholds funds pursuant to the subsection (a) of this section, he may, in accordance with regulations he shall prescribe, disburse the funds so withheld directly to any public or nonprofit private organization or agency, or State or political subdivision thereof, which demonstrates the ability to achieve the goals of the Federal statute authorizing the program or activity while complying with regulations issued under section 6103 of this title.

(c) Advice as to failure to comply with regulation; determination that compliance cannot be secured by voluntary means

No action may be taken under subsection (a) of this title until the head of the Federal department or agency involved has advised the appropriate person of the failure to comply with the regulation involved and has determined that compliance cannot be secured by voluntary means.

(d) Report to congressional committees

In the case of any action taken under subsection (a) of this section, the head of the Federal department or agency involved shall transmit a written report of the circumstances and grounds of such action to the committees of the House of Representative and the Senate having legislative jurisdiction over the program or activity involved. No such action shall take effect until thirty days after the transmission of any such report.

(e) Injunctions; notice of violations; costs; conditions of actions

(1) When any interested person brings an action in any United States district court for the district in which the defendant is found or transacts business to enjoin a violation of this Act by any program or activity receiving Federal financial assistance, such interested person shall give notice by registered mail not less than 30 days prior to the commencement of that action to the Secretary of

Health and Human Services, the Attorney General of the United States, and the person against whom the action is directed. Such interested person may elect, by a demand for such relief in his complaint, to recover reasonable attorney's fees, in which case the court shall award the costs of suit, including a reasonable attorney's fee, to the prevailing plaintiff.

(2) The notice referred to in paragraph (1) shall state the nature of the alleged violation, the relief to be requested, the court in which the action will be brought, and whether or not attorney's fees are being demanded in the event the plaintiff prevails. No action described in paragraph (1) shall be brought (A) if at the time the action is brought the same alleged violation by the same defendant is the subject of a pending action in any court of the United States; or (B) if administrative remedies have not been exhausted.

(f) Exhaustion of administrative remedies

With respect to actions brought for relief based on an alleged violation of the provisions of this chapter, administrative remedies shall be deemed exhausted upon the expiration of 180 days from the filing of an administrative complaint during which time the Federal department or agency makes no finding with regard to the complaint, or upon the day that the Federal department or agency issues a finding in favor of the recipient of financial assistance, whichever occurs first.

Section 6105. Judicial review

(a) Revisions of other laws

Any action by any Federal Department or agency under section 6104 of this title shall be subject to such judicial review as any otherwise be provided by law for similar action taken by any such department or agency on other grounds.

(b) Provisions of Chapter 7 of Title 5; reviewable agency discretion

In the case of any action by any Federal department or agency under section 6104 of this title which is not otherwise subject to judicial review, any person aggrieved (including any State or political subdivision thereof and any agency of either) may obtain judicial review of such action in accordance with the provisions of chapter 7 of Title 5. For purposes of this subsection, any such action shall not be purposes of this subsection, any such action shall not be considered committed to unreviewable agency discretion within the meaning of section 701(a)(2) of such title.

Section 6106. Study of discrimination based on age

(a) Study by Commission on Civil Rights

The Commission on Civil Rights shall (1) undertake a study of unreasonable discrimination based on age in programs and activities receiving Federal financial assistance; and (2) identify with particularity any such federally assisted program or activity in which there is found evidence of persons who are otherwise qualified being, on the basis of age, excluding from participation in, denied the benefits of, or subjected to discrimination under such program or activity.

(b) Public hearings

As part of the study required by this section, the Commission shall conduct public hearings to elicit the views of interested parties, including Federal departments and agencies, on issues relating to age discrimination in programs and activities receiving Federal financial assistance, and particularly with respect to the reasonableness of distinguishing, on the basis of age, among potential participants in, or beneficiaries of, specific federally assisted programs.

(c) Publication of results of analyses, research and studies by independent experts; services of voluntary or uncompensated personnel

The Commission is authorized to obtain through grant or contract, analyses, research and studies by independent experts of issues relating to age discrimination and to publish the results thereof. For purposes of the study required by this section, the Commission may accept and utilize the services of voluntary or uncompensated personnel, without regard to the provisions of section 1975d(b) of this title.

(d) Report to President and Congress; copies to affected Federal departments and agencies; information and technical assistance

Not later than two years after November 28, 1975, the Commission shall transmit a report of its findings and its recommendations for statutory changes (if any) and administrative action, including suggested general regulations, to the Congress and to the President and shall provide a copy of its report to the head of each Federal department and agency with respect to which the Commission makes findings or recommendations. The Commission is authorized to provide, upon request, information and technical assistance regarding its findings and recommendations to Congress, to the President, and to the heads of Federal departments and agencies for a ninety-day period following the transmittal of its report.

(e) Comments and recommendations of Federal departments and agencies; submission to President and Congressional committees

Not later than forty-five working days after receiving a copy of the report required by subsection (d) of this section, each Federal department or agency with respect to which the Commission makes findings or recommendations shall submit its comments and recommendations regarding such report to the President and to the Committee on Labor and Human Resources of the Senate and the Committee on Education and Labor of the House of Representatives.

(f) Cooperation of Federal departments and agencies with Commission

The head of each Federal department or agency shall cooperate in all respects with the Commission with respect to the study required by subsection (a) of this section, and shall provide to the Commission such data, reports, and documents in connection with the subject matter of such study as the Commission may request.

(g) Authorization of appropriations

There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this section.

§ 6106a. Reports to the Secretary and Congress

(a) Reports to Secretary

Not later than December 31 of each year (beginning in 1979), the head of each Federal department or agency shall submit to the Secretary of Health and Human Services a report (1) describing in detail the steps taken during the preceding fiscal year by such department or agency to carry out the provisions of section 6102 of this title; and (2) containing specific data about program participants or beneficiaries, by age, sufficient to permit analysis of how well the department or agency is carrying out the provisions of section 6102 of this title.

(b) Reports to Congress

Not later than March 31 of each year (beginning in 1980), the Secretary of Health and Human Services shall compile the reports made pursuant to subsection (a) of this section and shall submit them to the Congress, together with an evaluation of the performance of each department or agency with respect to carrying out the provisions of section 6102 of this title.

§ 6107. Definitions

For the purposes of this chapter--

- (1) the term "Commission" means the Commission on Civil Rights;
- (2) the term "Secretary" means the Secretary of Health and Human Services;
- (3) the term "Federal department or agency" means any agency as defined in section 551 of Title 5 and includes the United States Postal Service and the Postal Rate Commission; and
- (4) the term "program or activity" means all of the operations of --
 - (A)(i) a department, agency, special purpose district, or other instrumentality of a State or of a local government; or
 - (ii) the entity of such State or local government that distributes such assistance and each such department or agency (and each other State or local government entity) to which the assistance is extended, in the case of assistance to a State or local government;
 - (B)(i) a college, university, or other postsecondary institution, or a public system of higher education; or
 - (ii) a local educational agency (as defined in section 8801 of Title 20), system of vocational education, or other school system;
 - "(C)(i) an entire corporation, partnership, or other private organization, or an entire sole proprietorship --
 - "(I) if assistance is extended to such corporation, partnership, private organization, or sole proprietorship as a whole; or
 - "(II) which is principally engaged in the business of providing education, health care, housing, social services, or parks and recreation; or
 - "(ii) the entire plant or other comparable, geographically separate facility to which Federal financial assistance is extended, in the case of any other corporation, partnership, private organization, or sole proprietorship; or
 - "(D) any other entity which is established by two or more of the entities described in paragraph (A), (B) or (C);

any part of which is extended Federal financial assistance.

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Section 13 of the Federal Water Pollution Control Act Amendments of 1972

In accordance with Executive Order 14224 (in English) [↗](#), which designates English as the official language of the United States, the Environmental Protection Agency (EPA) is reviewing and updating, as necessary, its language access policies and procedures. This webpage and documents will be updated when new materials are available.

Pursuant to a permanent injunction issued by the U.S. District Court for the Western District of Louisiana on August 22, 2024, EPA will not impose or enforce any disparate impact or cumulative impact analysis requirements under Title VI against any entity in the State of Louisiana. Click here for additional and updated information

[<https://epa.gov/external-civil-rights/notice-compliance-permanent-injunction-louisiana-v-epa-et-al>](https://epa.gov/external-civil-rights/notice-compliance-permanent-injunction-louisiana-v-epa-et-al).

Section 13 provides:

No person in the United States shall on the ground of sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance under this Act, the Federal Water Pollution Control Act, or the Environmental Financing Act. This section shall be enforced through agency provisions and rules similar to those already established, with respect to racial and other discrimination, under Title VI of the Civil Rights Act of 1964. However, this remedy is not exclusive and will not prejudice or cut off any other legal remedies available to a discriminatee.

Section 13 of the Federal Water Pollution Control Act Amendments of 1972 (PDF) [↗](#)

[<https://www.govinfo.gov/content/pkg/uscode-2021-title33/pdf/uscode-2021-title33-chap26-subchapi-sec1251.pdf>](https://www.govinfo.gov/content/pkg/uscode-2021-title33/pdf/uscode-2021-title33-chap26-subchapi-sec1251.pdf) is published in the United States Code at 33 U.S.C. §1251.

The nondiscrimination provisions of Section 13 also apply to recipients of financial assistance under the Environmental Financing Act, which is published in the United States Code at 33 U.S.C. §1281. [🔗 <https://www.govinfo.gov/content/pkg/uscode-2021-title33/pdf/uscode-2021-title33-chap26-subchapii-sec1281.pdf>](https://www.govinfo.gov/content/pkg/uscode-2021-title33/pdf/uscode-2021-title33-chap26-subchapii-sec1281.pdf) (PDF)

EPA's Section 13 implementing regulations are published in the Code of Federal Regulations at 40 C.F.R. Part 7 (PDF) [🔗 <https://www.gpo.gov/fdsys/pkg/cfr-2014-title40-vol1/pdf/cfr-2014-title40-vol1-part7.pdf>](https://www.gpo.gov/fdsys/pkg/cfr-2014-title40-vol1/pdf/cfr-2014-title40-vol1-part7.pdf) (Nondiscrimination in Programs Receiving Federal Assistance From the Environmental Protection Agency.)

EPA's Civil Rights regulations (40 C.F.R. Part 7) (PDF) [🔗 <https://www.gpo.gov/fdsys/pkg/cfr-2014-title40-vol1/pdf/cfr-2014-title40-vol1-part7.pdf>](https://www.gpo.gov/fdsys/pkg/cfr-2014-title40-vol1/pdf/cfr-2014-title40-vol1-part7.pdf) (Nondiscrimination in Programs Receiving Federal Assistance from the Environmental Protection Agency) implement not only Title VI of the Civil Rights Act of 1964, as amended, but also section 504 of the Rehabilitation Act of 1973, as amended, and Section 13 of the [Clean Water Act] Federal Water Pollution Control Act Amendments of 1972, Public Law 93-500.

Last updated on March 25, 2026

Office of the Assistant Secretary for Administration & Management

Section 504, Rehabilitation Act of 1973

Section 794. Nondiscrimination under Federal grants and programs; promulgation of rules and regulations**(a) Promulgation of rules and regulations**

No otherwise qualified individual with a disability in the United States, as defined in section 705 (20) of this title, shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service. The head of each such agency shall promulgate such regulations as may be necessary to carry out the amendments to this section made by the Rehabilitation, Comprehensive Services, and Development Disabilities Act of 1978. Copies of any proposed regulations shall be submitted to appropriate authorizing committees of the Congress, and such regulation may take effect no earlier than the thirtieth day after the date of which such regulation is so submitted to such committees. See also 29 CFR Part 32 and 29 CFR Part 37.

(b) "Program or activity" defined

For the purposes of this section, the term "program or activity" means all of the operations of --

- (1)(A) a department, agency, special purpose district, or other instrumentality of a State or of a local government; or
- (B) the entity of such State or local government that distributes such assistance and each such department or agency (and each other State or local government entity) to which the assistance is extended, in the case of assistance to a State or local government;
- (2)(A) a college, university, or other postsecondary institution, or a public system of higher education; or
- (B) a local educational agency (as defined in section 8801 of Title 20), system of vocational education, or other school system;
- (3)(A) an entire corporation, partnership, or other private organization, or an entire sole proprietorship --
 - (i) if assistance is extended to such corporation, partnership, private organization, or sole proprietorship as a whole; or
 - (ii) which is principally engaged in the business of providing education, health care, housing, social services, or parks and recreation; or
- (B) the entire plant or other comparable, geographically separate facility to which Federal financial assistance is extended, in the case of any other corporation, partnership, private organization, or sole proprietorship; or
- (4) any other entity which is established by two or more of the entities described in paragraph (1), (2) or (3); any part of which is extended Federal financial assistance.

(c) Significant structural alterations by small providers

Small providers are not required by subsection (a) to make significant structural alterations to their existing facilities for the purpose of assuring program accessibility, if alternative means of providing the services is available. The terms used in this subsection shall be construed with reference to the regulations existing on March 22, 1988.

(d) Standards used in determining violation of section

The standards used to determine whether this section has been violated in a complaint alleging employment discrimination under this section shall be the standards applied under title I of the Americans with Disabilities Act of 1990 (42 U.S.C. 12111 et seq.) and the provisions of sections 501 through 504, and 510, of the Americans with Disabilities Act of 1990 (42 U.S.C. 12201-12204 and 12210), as such sections related to employment.

Section 794a. Remedies and attorney fees

(a)(1) The remedies, procedures, and rights set forth in section 717 of the Civil Rights Act of 1964 (42 U.S.C. 2000e-16), including the application of sections 706(f) through 706 (k) [42 U.S.C. 2000e-5(f) through k)] shall be available, with respect to any complaint under section 791 of this title, to any employee or applicant for employment aggrieved by the final disposition of such complaint, or by the failure to take final action on such complaint. In fashioning an equitable or affirmative action remedy under such section, a court may take into account the reasonableness of the cost of any necessary work place accommodation, and the availability of alternative therefor or other appropriate relief in order to achieve an equitable and appropriate remedy.

(2) The remedies, procedures, and rights set forth in title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq) shall be available to any person aggrieved by any act or failure to act by any recipient of Federal assistance or Federal provider of such assistance under section 794 of this title.

(b) In any action or proceeding to enforce or charge a violation of a provision of this subchapter, the court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs.

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Executive Orders

Executive Order 12250--Leadership and Coordination of Nondiscrimination Laws

Source: The provisions of Executive Order 12250 of Nov. 2, 1980, appear at 45 FR 72995, 3 CFR, 1980 Comp., p. 298, unless otherwise noted.

By the authority vested in me as President by the Constitution and statutes of the United States of America, including section 602 of the Civil Rights Act of 1964 (42 U.S.C. 2000d-1), Section 902 of the Education Amendments of 1972 (20 U.S.C. 1682), and Section 301 of Title 3 of the United States Code, and in order to provide, under the leadership of the Attorney General, for the consistent and effective implementation of various laws prohibiting discriminatory practices in Federal programs and programs receiving Federal financial assistance, it is hereby ordered as follows:

1-1. Delegation of Function.

1-101. The function vested in the President by Section 602 of the Civil Rights Act of 1964 (42 U.S.C. 2000d-1), relating to the approval of rules, regulations, and orders of general applicability, is hereby delegated to the Attorney General.

1-102. The function vested in the President by Section 902 of the Education Amendments of 1972 (20 U.S.C. 1682), relating to the approval of rules, regulations, and orders of general applicability, is hereby delegated to the Attorney General.

1-2. Coordination of Nondiscrimination Provisions.

1-201. The Attorney General shall coordinate the implementation and enforcement by Executive agencies of various nondiscrimination provisions of the following laws:

- (a) Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d *et seq.*).
- (b) Title IX of the Education Amendments of 1972 (20 U.S.C. 1681 *et seq.*).
- (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794).
- (d) Any other provision of Federal statutory law which provides, in whole or in part, that no person in the United States shall, on the ground of race, color, national origin, handicap, religion, or sex, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance.

1-202. In furtherance of the Attorney General's responsibility for the coordination of the implementation and enforcement of the nondiscrimination provisions of laws covered by this Order, the Attorney General shall review the existing and proposed rules, regulations, and orders

of general applicability of the Executive agencies in order to identify those which are inadequate, unclear or unnecessarily inconsistent.

1-203. The Attorney General shall develop standards and procedures for taking enforcement actions and for conducting investigations and compliance reviews.

1-204. The Attorney General shall issue guidelines for establishing reasonable time limits on efforts to secure voluntary compliance, on the initiation of sanctions, and for referral to the Department of Justice for enforcement where there is noncompliance.

1-205. The Attorney General shall establish and implement a schedule for the review of the agencies' regulations which implement the various nondiscrimination laws covered by this Order.

1-206. The Attorney General shall establish guidelines and standards for the development of consistent and effective recordkeeping and reporting requirements by Executive agencies; for the sharing and exchange by agencies of compliance records, findings, and supporting documentation; for the development of comprehensive employee training programs; for the development of effective information programs; and for the development of cooperative programs with State and local agencies, including sharing of information, deferring of enforcement activities, and providing technical assistance.

1-207. The Attorney General shall initiate cooperative programs between and among agencies, including the development of sample memoranda of understanding, designed to improve the coordination of the laws covered by this Order.

1-3. Implementation by the Attorney General.

1-301. In consultation with the affected agencies, the Attorney General shall promptly prepare a plan for the implementation of this Order. This plan shall be submitted to the Director of the Office of Management and Budget.

1-302. The Attorney General shall periodically evaluate the implementation of the nondiscrimination provisions of the laws covered by this Order, and advise the heads of the agencies concerned on the results of such evaluations as to recommendations for needed improvement in implementation or enforcement.

1-303. The Attorney General shall carry out his functions under this Order, including the issuance of such regulations as he deems necessary, in consultation with affected agencies.

1-304. The Attorney General shall annually report to the President through the Director of the Office of Management and Budget on the progress in achieving the purposes of this Order. This report shall include any recommendations for changes in the implementation or enforcement of the nondiscrimination provisions of the laws covered by this Order.

1-305. The Attorney General shall chair the Interagency Coordinating Council established by Section 507 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794c).

1-4. Agency Implementation.

1-401. Each Executive agency shall cooperate with the Attorney General in the performance of the Attorney General's functions under this Order and shall, unless prohibited by law, furnish such reports and information as the Attorney General may request.

1-402. Each Executive agency responsible for implementing a nondiscrimination provision of a law covered by this Order shall issue appropriate implementing directives (whether in the nature of regulations or policy guidance). To the extent permitted by law, they shall be consistent with the requirements prescribed by the Attorney General pursuant to this Order and shall be subject to the approval of the Attorney General, who may require that some or all of them be submitted for approval before taking effect.

1-403. Within 60 days after a date set by the Attorney General, Executive agencies shall submit to the Attorney General their plans for implementing their responsibilities under this Order.

1-5. General Provisions.

1-501. Executive Order No. 11764 is revoked. The present regulations of the Attorney General relating to the coordination of enforcement of Title VI of the Civil Rights Act of 1964 shall continue in effect until revoked or modified (28 CFR 42.401 to 42.415).

1-502. Executive Order No. 11914 is revoked. The present regulations of the Secretary of Health and Human Services relating to the coordination of the implementation of Section 504 of the Rehabilitation Act of 1973, as amended, shall be deemed to have been issued by the Attorney General pursuant to this Order and shall continue in effect until revoked or modified by the Attorney General.

1-503. Nothing in this Order shall vest the Attorney General with the authority to coordinate the implementation and enforcement by Executive agencies of statutory provisions relating to equal employment.

1-504. Existing agency regulations implementing the nondiscrimination provisions of laws covered by this Order shall continue in effect until revoked or modified.

The U.S. National Archives and Records Administration

1-86-NARA-NARA or 1-866-272-6272

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**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 9/23/2021 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: _____

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EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

THE DIRECTOR

October 25, 2023

M-24-02

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: Shalanda D. Young 
SUBJECT: Implementation Guidance on Application of Buy America Preference in
Federal Financial Assistance Programs for Infrastructure

This memorandum provides supplemental implementation guidance to Federal agencies on: (1) the application of a Buy America preference¹ to Federal financial assistance programs for infrastructure; and (2) the process for waiving such a Buy America preference — including the circumstances under which waivers may be justified as consistent with applicable law and policy.² This memorandum rescinds and replaces Office of Management and Budget (OMB) Memorandum M-22-11. In addition, this memorandum removes direct conflicts between the earlier Memorandum M-22-11 and subsequent guidance issued by OMB in part 184 of Title 2 of the Code of Federal Regulations (“CFR”).³ This memorandum also provides updated guidance on a limited number of topics — including the waiver process — which modifies earlier guidance provided by OMB in Memorandum M-22-11. To the extent that any guidance provided in this memorandum conflicts with guidance in 2 CFR part 184, the guidance in part 184 prevails.

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (“IIJA”), Pub. L. No. 117-58, which includes the Build America, Buy America Act (“BABA”). Pub. L. No. 117-58, §§ 70901-27. BABA strengthens Buy America preferences associated with Federal financial assistance for infrastructure and will bolster America’s industrial base, protect national security, and support high-paying jobs. BABA requires that the head of each covered Federal agency⁴ must ensure that none of the funds made available for a Federal financial assistance program for infrastructure are obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States.⁵

BABA affirms, consistent with Executive Order 14005, *Ensuring the Future Is Made in All of America by All of America’s Workers* (“the Executive Order”), this Administration’s priority to

¹ 2 CFR 184.3.

² 2 CFR 184.7; Executive Order 14005, “Ensuring the Future Is Made in All of America by All of America’s Workers,” 86 FR 7475 (Jan. 28, 2021).

³ 88 FR 57750 (Aug. 23, 2023).

⁴ For the purposes of this guidance, the terms “Federal agency” and “agency” mean any authority of the United States that is an “agency” (as defined in section 3502 of title 44, United States Code), other than an independent regulatory agency (as defined in that section). IIJA, § 70912(3).

⁵ IIJA, § 70914(a).

“use terms and conditions of Federal financial assistance awards to maximize the use of goods, products, and materials produced in, and services offered in, the United States.”⁶

On April 18, 2022, OMB issued Memorandum M-22-11, “Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure.” Memorandum M-22-11 provided initial implementation guidance to Federal agencies on the application of the Buy America preference to Federal financial assistance programs for infrastructure, the Buy America waiver process, and other topics.

On August 23, 2023, OMB issued a Notification of Final Guidance revising title 2 of the Code of Regulations (“CFR”) to add a new part 184 and revise section 200.322.⁷ Part 184 provides guidance to Federal agencies on how to apply the “Buy America” preference set forth in BABA to Federal awards for infrastructure projects.⁸ The revised section 200.322 clarifies existing provisions within part 200 on domestic preferences for procurements made under Federal financial assistance awards, and specifies that Federal agencies providing Federal financial assistance for infrastructure projects must implement the Buy America preferences set forth in 2 CFR part 184.⁹ OMB issues this memorandum to provide Federal agencies with supplemental guidance on implementing BABA and 2 CFR part 184.

I. Rescission of OMB Memorandum M-22-11

This memorandum rescinds and replaces OMB Memorandum M-22-11. OMB’s primary guidance related to implementation of BABA is contained in 2 CFR part 184. This memorandum summarizes certain aspects of 2 CFR part 184, and provides supplemental guidance for infrastructure projects subject to BABA. Federal agencies should refer to 2 CFR 184.2 for the effective date and applicability of part 184.¹⁰

II. Scope

In 2 CFR part 184, OMB identifies a limited set of infrastructure projects that will remain subject to certain requirements established in Memorandum M-22-11. See 2 CFR 184.2(b)-(c). For such projects, refer to Appendix II for applicable requirements originally contained in Memorandum M-22-11.

This memorandum modifies the guidance in Section VII of OMB Memorandum M-22-11 on “Issuing Buy America Waivers” for all infrastructure projects, including both projects subject to part 184 of 2 CFR and projects subject to the requirements of the rescinded OMB Memorandum M-22-11. Thus, Section VI of this Memorandum, entitled “Issuing Buy America Waivers,” is the effective OMB guidance on waivers for all infrastructure projects subject to BABA.

III. Summary of 2 CFR part 184

⁶ Exec. Order No. 14005 (see footnote 1).

⁷ See 88 FR 57750 (Aug. 23, 2023).

⁸ IIJA § 70912(a)(5)(7).

⁹ See 88 FR 57750 (Aug. 23, 2023).

¹⁰ 2 CFR 184.2(b).

2 CFR part 184 includes definitions for key terms, including iron or steel products, manufactured products, construction materials, and materials identified in section 70917(c) of BABA (section 70917(c) materials). These definitions at 2 CFR 184.3 provide a common system for Federal agencies to distinguish between the product categories established under the statutory text in BABA.

2 CFR 184.4(c)-(d) provides guidance on the meaning of infrastructure under BABA. Section 184.4(c) explains that “infrastructure” encompasses public infrastructure projects in the United States. The term includes, at a minimum, the structures, facilities, and equipment for roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property; and structures, facilities, and equipment that generate, transport, and distribute energy including electric vehicle (EV) charging.

OMB also provides a definition of “infrastructure project” at 2 CFR 184.3. Section 184.4(d) explains that Federal agencies should interpret the term “infrastructure” broadly and consider the description provided in section 184.4(c) as illustrative and not exhaustive. Section 184.4(d) also explains that, when determining if a particular construction project of a type not listed in section 184.4(c) constitutes “infrastructure,” agencies should consider whether the project will serve a public function, including whether the project is publicly owned and operated, privately operated on behalf of the public, or is a place of public accommodation, as opposed to a project that is privately owned and not open to the public. Through this memorandum, OMB notes that projects with the former “public” qualities have greater indicia (or distinguishing features) of “infrastructure,” while projects with the latter “private” quality have fewer. As a result, projects consisting solely of the purchase, construction, or improvement of a private home for personal use, for example, would not constitute a public infrastructure project for purposes of BABA. Federal agencies are strongly encouraged to consult with OMB when making such determinations or if they are uncertain about the applicability of this guidance to any particular infrastructure program.

2 CFR part 184 also includes —

- Information on the applicability and effective date of part 184 (2 CFR 184.2);
- Information on the non-applicability of part 184 to certain existing Buy America preferences implemented by Federal agencies (2 CFR 184.2(a));
- Guidance on the applicability of the Buy America preference to infrastructure projects and including the preference in Federal awards (2 CFR 184.4(a)-(b));
- Guidance on categorizing articles, materials, and supplies into the appropriate category (2 CFR 184.4(e));
- Guidance on applying the Buy America preference by category (2 CFR 184.4(f));
- Guidance for determining the cost of components of manufactured products (2 CFR 184.5);
- Standards that define “all manufacturing processes” in the case of construction materials (2 CFR 184.6);

- Guidance on proposing and issuing Buy America waivers (2 CFR 184.7);
- Guidance on how Federal agencies should allow recipients to request waivers (2 CFR 184.7); and
- Guidance on exemptions to the Buy America preference (2 CFR 184.8).

IV. Guidance on Applicability to Federal Financial Assistance Programs

The Buy America preference under BABA and 2 CFR part 184 applies to all Federal financial assistance as defined in 2 CFR 200.1 or successor regulations¹¹ — whether or not funded through IIJA — where funds are appropriated or otherwise made available and used for a project for infrastructure. See 2 CFR 184.2(a), 200.1, and 200.322(c). For the purposes of this memorandum, Federal financial assistance means assistance that non-Federal entities receive or administer in the form of grants, cooperative agreements, non-cash contributions or donations of property, direct assistance, loans, loan guarantees, and other types of financial assistance. The term “non-Federal entity” includes States, local governments, territories, Indian tribes, Institutions of Higher Education (IHE), and nonprofit organizations.¹²

For purposes of this guidance, for-profit organizations are not considered non-Federal entities. However, this guidance does not alter legal authorities that agencies may have to include the Buy America preference, or other domestic content requirements, in awards of Federal financial assistance issued to for-profit organizations. Federal agencies may consider applying this guidance to for-profit entities consistent with their legal authorities. For example, 2 CFR 200.101(a)(2) allows Federal agencies to apply certain subparts of part 200 to for-profit entities. See also the discussion of for-profit entities in the preamble for 2 CFR part 184; and discussion below in this memorandum on requirements that “flow down” to “subrecipients.”

A Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.

A Buy America preference only applies to the iron and steel, manufactured products, and construction materials incorporated into an infrastructure project receiving a Federal award. If an agency has determined that no funds from a particular project receiving a Federal award will be used for infrastructure, a Buy America preference does not apply to that project. A Buy America preference does not apply to non-infrastructure components or expenditures under an infrastructure project receiving a Federal award.

A Buy America preference applies to *an entire infrastructure project*, even if it is funded by both Federal and non-Federal funds under one or more awards. In other words, if an

¹¹ IIJA § 70912(4)(A)

¹² See 2 C.F.R. § 200.1.

infrastructure project receives a Federal award, the Buy America preferences applies to both the Federal funds and non-Federal funds used for the infrastructure project.

Part 184 clarifies that it does not apply to a Buy America preference meeting or exceeding the requirements of section 70914 of BABA applied by a Federal agency to Federal awards for infrastructure projects before November 15, 2021 (when IIJA was signed into law). Federal agencies must make necessary changes to come into compliance with BABA's requirements, unless such agencies have policies and provisions that already meet or exceed the standards required by BABA. For example, a program in which the standards for iron and steel already meet the standards in BABA may nevertheless be required to adopt new standards for manufactured products and construction materials. Maintaining current policies where appropriate avoids unnecessary disruption to programs, or elements of programs, that already meet or exceed BABA requirements. For additional information, see 2 CFR 184.2(a) and associated discussion of that section in the preamble to the final guidance.¹³

Unless the Federal award specifically indicates otherwise, subawards should conform to the terms and conditions of the Federal award from which they flow.¹⁴ For example, if a Federal agency obligates an award to a State government as a direct recipient, and the State issues a subaward to a for-profit entity to carry out the project as a subrecipient, then the Buy America preference requirements included in the Federal award would flow down to the for-profit entity.

Through Memorandum M-22-11, OMB explained that, before applying a Buy America preference to a covered program that will affect Tribal communities, Federal agencies should follow the consultation policies established through Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, and consistent with policies set forth in the Presidential Memorandum of January 26, 2021, on Tribal Consultation and Strengthening Nation-to-Nation Relationships. Federal agencies should continue to strengthen Nation-to-Nation relationships through regular and meaningful consultation and collaboration with Tribal communities in accordance with the Presidential Memorandum of January 26, 2021 and the Presidential Memorandum of November 30, 2022, on Uniform Standards for Tribal Consultation.

Agencies with questions regarding the application of a Buy America preference to agency programs, including questions about the possible use of waivers, are advised to reach out to OMB's Made in America Office ("MIAO") for technical assistance and advice.

V. Consistency with International Agreements

Pursuant to Section 70914(e) of BABA, this guidance must be applied in a manner consistent with the obligations of the United States under international agreements. Federal financial assistance awards are generally not subject to international trade agreements because these international obligations only apply to direct Federal procurement activities by signatories to such agreements. The Federal Acquisition Regulation ("FAR") addresses how international trade agreements implemented by the Trade Agreements Act apply to direct Federal procurement activities of the U.S. at FAR subpart 25.4.¹⁵ In the case of Federal financial assistance, a number of

¹³ 88 FR 57750 (Aug. 23, 2023).

¹⁴ 2 CFR 200.101(b)(2).

¹⁵ See also FAR 25.1101, 25.1103, and 52.225-5.

U.S. States have opted to obligate their procurement activities to the terms of one or more international trade agreements and, as such, are included in schedules to the international trade agreements. If a recipient is a State that has assumed procurement obligations pursuant to the Government Procurement Agreement or any other trade agreement, a Federal agency that applies a BABA preference to Federal awards may propose to waive BABA requirements in the public interest to allow a State to comply with its obligations. Federal agencies should follow the procedures in Section 184.7 of the OMB guidance in 2 CFR part 184 and relevant supplemental guidance in this memorandum. For additional information, interested entities may also consult with the State in question or the Federal agency providing the funds.

VI. Issuing Buy America Waivers

Pursuant to Section 70914(b) of BABA and 2 CFR 184.7, the head of a Federal agency may waive the application of a Buy America preference under an infrastructure program in any case in which the head of the Federal agency finds that —

- Applying the Buy America preference would be inconsistent with the public interest (a “public interest waiver”);
- Types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality (a “nonavailability waiver”); or
- The inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent (an “unreasonable cost waiver”).

Federal agencies are responsible for processing and approving all waivers, including waivers requested by recipients and on behalf of subrecipients consistent with the procedures in 2 CFR 184.7. Every waiver must be reviewed by the MIAO. To the greatest extent practicable, waivers should be targeted to specific products and projects.¹⁶

Before issuing a final waiver, the Federal awarding agency must make the proposed waiver and the detailed written explanation publicly available in an easily accessible location on a website designated by the Federal awarding agency and OMB. The Federal agency must also provide a period of not less than 15 calendar days for public comment on the proposed waiver.¹⁷ General applicability waivers are subject to a minimum 30-day public comment period when reviewed for modification or renewal.¹⁸ The MIAO may request that Federal agencies use a 30-day comment period for other waivers on a case-by-case basis when circumstances warrant — for example when a waiver covers items of special importance to American supply chains (such as those identified in section 3(b) of the Executive Order 13953) or involves a substantial amount of Federal funding.

Agencies are required to provide the website address where they will be posting proposed waivers for public comment to OMB at MBX.OMB.MadeInAmerica@omb.eop.gov. Pursuant to sections 70914(c) and 70937 of IIJA, the waiver must also be cross-posted to a

¹⁶ See Section VI of this guidance for information on waiver principles and criteria.

¹⁷ 2 CFR part 184.7(d).

¹⁸ IIJA § 70914(d)(2)(A)(ii). See Section VII of this guidance for information on general applicability waivers.

centralized waiver transparency website managed by the General Services Administration (GSA), [BuyAmerican.gov](https://www.buyamerican.gov),¹⁹ in addition to the agency website. To minimize duplication and promote efficiency, MIAO and GSA will continue to coordinate with agencies on the expansion of the existing website's functionality to display waivers for Federal financial assistance and provide further instructions to agencies as necessary.

Federal agencies are responsible for performing due diligence, including market research, and approving or rejecting waivers consistent with BABA, 2 CFR part 184, this guidance, and any other applicable Buy America laws.

Federal agencies should notify the MIAO, and are encouraged to consult with the MIAO when possible, in advance of posting an award- or project-level proposed waiver for public comment. However, Federal agencies must consult with the MIAO for proposed waivers with broader applicability (such as a general applicability waiver) before posting them for public comment. The purpose of the consultation is to identify any opportunities to structure the waiver in order to maximize the use of goods, products, and materials produced in the United States to the greatest extent possible consistent with law. Federal agencies should send proposed waivers for review to MBX.OMB.MIAwaivers@omb.eop.gov.

Federal agencies must submit to the MIAO a draft of the waiver for review after the public comment period has concluded. MIAO will review the draft waiver to determine if it is consistent with applicable law and policy,²⁰ and will notify the Federal agency of its determination.

All waiver requests must include a detailed justification for the use of goods, products, or materials mined, produced, or manufactured outside the United States²¹ and a certification that there was a good faith effort to solicit bids for domestic products supported by terms included in requests for proposals, contracts, or nonproprietary communications with potential suppliers.²² In addition, at a minimum and to the greatest extent practicable, each proposed or draft final waiver submitted to the MIAO should include the following information, as applicable:

- Waiver type (nonavailability, unreasonable cost, or public interest).
- Recipient name and Unique Entity Identifier (UEI).
- Federal awarding agency organizational information (e.g., Common Government-wide Accounting Classification (CGAC) Agency Code).
- Financial assistance listing name and number.
- Federal financial assistance program name.
- Federal Award Identification Number (FAIN) (if available or applicable).
- Federal financial assistance funding amount.
- Total estimated infrastructure expenditures, including all Federal and non-Federal funds (if applicable).
- Infrastructure project description and location (to the extent known).

¹⁹ [BuyAmerican.gov](https://www.buyamerican.gov) redirects to [MadeInAmerica.gov](https://www.madeinamerica.gov).

²⁰ Executive Order 14005, § 4(c).

²¹ IIJA, § 70937(c)(2)(A).

²² IIJA, § 70937(c)(2)(D).

- In the case of general applicability waivers, a description of the relevant Federal program(s)—including information on the size and scale of the program(s), an estimate of the dollar amount of Federal financial assistance that would be subject to the waiver, and an estimate of how many infrastructure projects would be subject to the waiver.
- List of iron or steel item(s), manufactured products, and construction material(s) proposed to be excepted from Buy America requirements, including name, cost, country(ies) of origin (if known), and relevant Product and Service Code (PSC) and North American Industry Classification System (NAICS) code for each.
- A description of efforts made (e.g., market research, industry outreach, etc.) by the Federal awarding agency and, in the case of a project or award specific waiver, by the recipient, in an attempt to avoid the need for a waiver. Such a description may cite, if applicable, the absence of any Buy America-compliant bids received in response to a solicitation.
- Market research, where applicable, should include relevant details, including who conducted the market research, when it was conducted, sources that were used, and the methods used to conduct the research.
- Anticipated impact if no waiver is issued.
- For final waivers, any relevant comments received through the public comment period, and the agency's response to those comments.

The purpose of the information is to demonstrate the agency's due diligence, and provide the MIAO with sufficient information to determine whether the proposed waiver is consistent with law and policy. For proposed waivers, agencies should also ensure that sufficient information is available for public review. Information provided for public review should help interested manufacturers gauge the demand for products for which agencies are considering waiving a Buy America preference.

To avoid a need for duplicative waiver requests from entities that receive funding for one infrastructure project through multiple Federal agencies, the Federal agency contributing the greatest amount of Federal funds for the project may be considered the Cognizant Agency for Made in America ("Cognizant Agency") and may take responsibility for coordinating with the other Federal awarding agencies. Such coordination has the benefit of providing uniform waiver criteria and adjudication processes, minimizing duplicative efforts among Federal agencies, and reducing burdens on recipients. Based on the statutory waiver authority at section 70914(b) of BABA, each Federal agency waiving a BABA preference must make their own waiver determination. In other words, a Cognizant Agency cannot independently issue a waiver that applies to other agencies, but other agencies may rely on the work performed by the Cognizant Agency when proposing and issuing waivers for a single infrastructure project. When appropriate, agencies may consider proposing a joint waiver including two or more agencies relying on the work performed by the Cognizant Agency. Any Federal agency that did not jointly issue the proposed and final waivers will need an individual waiver, but it may also potentially rely on work performed by the Cognizant Agency when appropriate under the circumstances. The Cognizant Agency is responsible for consulting with the other Federal agencies, publicizing the proposed joint waiver, and submitting the proposed joint waiver for review to the MIAO.

a. Waiver Principles and Criteria

To ensure they are scrupulously monitoring, enforcing, and complying with applicable Buy America Laws and minimizing the use of waivers,²³ agencies must apply consistent criteria to determine whether to grant a waiver in a given circumstance. Agencies should establish policies and practices to ensure consistency with this guidance.

Agencies may reject or grant waivers in whole or in part. To the greatest extent practicable, waivers should be issued at the project level and be product-specific. As appropriate, a project-level waiver may be further narrowed to apply only to a single product or product type on that project. Overly broad waivers undermine market signals designed to boost domestic supply chains, particularly for key articles, materials and supplies in critical supply chains (i.e., critical supply chains identified in Executive Order 14017, *America's Supply Chains*). When necessary, agencies may consider issuing a waiver that has applicability beyond a single project; however, agencies should always issue, construe, and apply waivers to ensure the maximum utilization of goods, products, and materials produced in the United States, consistent with applicable law.

Federal agencies may consult with the MIAO when establishing or modifying criteria for granting waivers. They may also work within the Made in America Council,²⁴ a practice that will help to foster consistency across agencies to the greatest extent practical and appropriate. Federal agencies should use the following principles before issuing a waiver of any type —

- **Time-limited:** In certain limited circumstances, a Federal agency may determine that a waiver should be constrained principally by a length of time, or phased-out over time, rather than by the specific projects to which it applies. Waivers of this type may be appropriate, for example, when an item that is “non-available” from domestic sources is widely used in projects funded by a particular program’s awards. When issuing such a waiver, the agency should identify an appropriate, definite time frame (e.g., no more than one to two years) designed to ensure that, as domestic supply becomes available, domestic producers will have prompt access to the market created by the program.
- **Targeted:** Waivers that are not limited to particular projects should apply only to the item(s), product(s), or material(s) or category(ies) of item(s), product(s), or material(s) necessary. Waivers that are overly broad will tend to undermine domestic preference policies. Broader waivers will receive greater scrutiny from the MIAO.
- **Conditional:** Federal agencies are encouraged to issue waivers with specific conditions that support the policies of BABA and the Executive Order.

These principles and criteria should be viewed as minimum requirements for the use of

²³ IIJA § 70933(2).

²⁴ “Launching a New Made in America Council,” OMB, Briefing Room, Blogs (Jan. 19, 2022).

waivers by Federal agencies.²⁵ The MIAO expects all general applicability waivers to be appropriately targeted and time-limited. For example, agencies may consider phasing-out a waiver over time to provide a phased application of the Buy America preference requirements for a specific Federal program. Agencies also may consider limiting the scope of the waiver to only specific Buy America preference requirements (such as proposing to waive requirements for a limited set of construction materials). Project-level and award-level waivers should also be narrowly targeted, as appropriate.

Federal agencies should propose waivers to apply prospectively to future expenditures incurred after the effective date of the final waiver. While the BABA requirements apply when Federal funds are obligated²⁶ (when a Federal award is made), the MIAO recognizes that certain circumstances may justify a waiver of those domestic content requirements even after an award has been made. While waivers can be granted after a Federal agency makes an award, the waiver cannot apply to expenditures already incurred under the Federal award for items subject to a Buy America preference before the effective date of the waiver.

Non-availability Waivers

Before granting a non-availability waiver, agencies should consider whether the recipient has performed thorough market research, which may be accomplished with assistance from the agency, and adequately considered, where appropriate, qualifying alternate items, products, or materials. Waivers should describe the market research activities and methods to identify domestically manufactured items capable of satisfying the requirement, including the timing of the research and conclusions reached on the availability of sources. Agencies are encouraged to engage with the Made in America Council to develop resource lists for common items, goods, or materials.

Unreasonable Cost Waivers

An unreasonable cost waiver is available if the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent. Before granting an unreasonable cost waiver, to the extent permitted by law, agencies should ensure the recipient has provided adequate documentation that no domestic alternatives are available within this cost parameter. Agencies may assist recipients in gathering documentation.

For requests citing unreasonable cost as the statutory basis of the waiver, the waiver justification must include a comparison of the overall cost of the project with domestic products to the overall cost of the project with foreign-origin products, pursuant to the requirements of the applicable Made in America law.²⁷ Publicly available cost comparison data may be provided in lieu of proprietary pricing information.²⁸ Unreasonable cost waivers should be no broader than necessary.

²⁵ See Section IV. of this guidance for agencies that have existing regulations or guidance.

²⁶ IIJA § 70914(a).

²⁷ IIJA, § 70937(c)(2)(B).

²⁸ IIJA, § 70937(c)(2)(B).

Before granting an unreasonable cost waiver, to the extent permitted by law, agencies should also assess whether a significant portion of any cost advantage of a foreign-sourced product is the result of the use of dumped steel, iron, or manufactured products or the use of injuriously subsidized steel, iron, or manufactured products. More information on this topic is provided below in the discussion of public interest waivers.

Public Interest Waivers

A waiver in the public interest may be appropriate where an agency determines that other important policy goals cannot be achieved consistent with the Buy America requirements established by BABA and the proposed waiver would not meet the requirements for a non-availability or unreasonable cost waiver. Such waivers must be used judiciously and construed to ensure the maximum utilization of goods, products, and materials produced in the United States.²⁹ To the extent permitted by law, determination of public interest waivers must be made by the head of the agency with the authority over the Federal financial assistance award.³⁰

Public interest waivers may have a variety of bases. As with other waivers, they should be project-specific whenever possible, as what is in the public interest may vary depending upon the circumstances of the project, recipient, and specific items, products, or materials in question.

Federal agencies may wish to consider issuing a limited number of general applicability public interest waivers in the interest of efficiency and to ease burdens for recipients. The agency remains responsible for determining whether such a waiver is appropriate to apply to any given project; the MIAO will not review each application of such a waiver. The following are examples of types of public interest waivers an agency may consider proposing and issuing³¹ —

- ***De Minimis***: Ease of administration is important to reduce burden for recipients and agencies. Federal agencies may consider whether a general applicability public interest waiver should apply to infrastructure project purchases below a *de minimis* threshold. An agency may consider whether a public interest waiver should apply when necessary to ensure that recipients and Federal agencies make efficient use of limited resources, especially if the cost of processing the individualized waiver(s) would risk exceeding the value of the items waived. Agencies may consider adopting an agency-wide public interest waiver that sets a *de minimis* threshold, for example, of five (5) percent of applicable project costs up to a maximum of \$1,000,000, where applicable project costs are defined as material costs subject to the Buy America preference.
- **Small Grants**: Agencies may wish to consider whether it is in the public interest to waive application of a Buy America preference to awards at or below the Simplified Acquisition Threshold (SAT) that meet the following criteria: (1) the total Federal award does not exceed the SAT, currently set at \$250,000; and (2) the Federal award amount, inclusive of other funding sources for the infrastructure

²⁹ IIJA, § 70935(a).

³⁰ IIJA, § 70935(b).

³¹ The list is not exhaustive and no agency is required to issue the types of waivers noted as examples. As with other general applicability waivers, generally applicable public interest waivers must be reviewed at least every five years and more often as appropriate.

project, is not anticipated to exceed the SAT for the life of the Federal award. Federal agencies and the MIAO have found this type of waiver to be consistent with policy in some cases in the initial years after enactment of IIJA, but it may potentially be phased out over time as agencies develop more efficient award-level or project-level waiver review capabilities.

- **Minor Components:** Agencies may wish to consider whether it is in the public interest to allow minor deviations for miscellaneous minor components within iron and steel products. A general applicability, public interest, minor components waiver may allow non-domestically produced miscellaneous minor components comprising no more than five (5) percent of the total material cost of an otherwise domestically produced iron and steel product. This waiver type may not exempt an entire iron and steel product from the Buy America preference; the primary iron and steel components of the product must still be produced domestically. It would not be in the public interest to use a minor components waiver to exempt a whole product from the iron and steel requirements, or to allow the primary iron or steel components of the product to be produced other than domestically.
- **International Trade Obligations:** If a recipient is a State that has assumed procurement obligations pursuant to the Government Procurement Agreement or any other trade agreement, a waiver of a Made in America condition to ensure compliance with such obligations may be in the public interest.
- **Other Considerations:** A waiver may be in the public interest in one circumstance, but not in another, and considerations will depend upon the nature and amount of resources available to the recipient, the value of the items, goods, or materials in question, the potential domestic economic impacts, and other policy considerations, including sustainability, equity, accessibility, performance standards, and the domestic content (if any) of and conditions under which the non-qualifying good was produced.

All proposed waivers citing the public interest as the statutory basis must include a detailed written statement, which must address all appropriate factors, such as potential obligations under international agreements, justifying why the requested waiver is in the public interest.³²

Before granting a waiver in the public interest, to the extent permitted by law, agencies must assess whether a significant portion of any cost advantage of a foreign-sourced product is the result of the use of dumped steel, iron, or manufactured products or the use of injuriously subsidized steel, iron, or manufactured products. As explained above, Federal agencies should also conduct a similar analysis for unreasonable cost waivers, but it is not needed for non-availability waivers. Agencies may consult with the International Trade Administration (ITA) in making this assessment if the granting agency deems such consultation to be helpful. The agency must integrate any findings from the assessment into its waiver determination as appropriate.³³ MIAO will work with ITA and agencies to develop standard processes to expedite this required assessment, such as by ensuring agencies know how to easily access lists of dumped or injuriously subsidized products. Agencies can contact the MIAO for more information on possible resources.

³² IIJA, § 70937(c)(2)(C).

³³ Executive Order, § 5.

b. General Applicability Waivers

The term “general applicability waiver” refers to a waiver that applies generally across multiple agency projects or awards. A general applicability waiver can be “product-specific” (e.g., applies only to a product or category of products) or “non-product specific” (e.g., applies to all “manufactured products”).

General applicability waivers should be issued only when necessary to advance an agency’s missions and goals, consistent with IIJA, the Executive Order, and this guidance. For example, an agency might issue a general applicability waiver for a product for which there are well-established domestic sourcing challenges. General applicability waivers will require appropriate justification from the Federal agency.

Except as provided below, Federal agencies must review general applicability waivers within five years of the date on which the waiver was issued. Agencies are encouraged to review general applicability waivers more frequently, when appropriate. In reviewing of any general applicability waiver, the head of a Federal agency, or their delegated authority, must —

(A) Publish in the *Federal Register* a notice that—

- (i) describes the justification for the general applicability waiver; and
- (ii) requests public comments for a period of not less than 30 days on the continued need for the general applicability waiver; and

(B) Publish in the *Federal Register* a determination on whether to continue or discontinue the general applicability waiver, considering the comments received in response to the notice published under paragraph (A).³⁴

Through November 15, 2026, the requirement to review general applicability waivers under paragraphs (A) and (B) above does not apply to any product-specific general applicability waiver that was issued before May 19, 2021.³⁵

OMB has instructed Federal agencies with existing, non-product specific general applicability waivers that were issued more than five years before November 15, 2021 to promptly commence review of each such waiver by publishing a *Federal Register* notice as required in section 70914(d)(2)(A) of the IIJA. Should the review justify retaining the waiver, agencies should consider narrowing the waiver in a manner that would support supply chain resilience and boost incentives to manufacture key products domestically, as appropriate.

The MIAO will work with agencies to expedite consideration of general applicability waivers for products or categories of products for which domestic sourcing challenges have been well documented. Agencies should align such waivers with complementary policies, such as work to boost supply chain resiliency and domestic employment. General applicability waivers should include appropriate expiration dates designed to ensure that, once available, Buy America

³⁴ IIJA, § 70914(d)(1) & (2).

³⁵ IIJA, § 70914(d)(3).

qualifying products receive appropriate consideration.

Appendix I: Example of Award Term (Sample Language) —Required Use of American Iron, Steel, Manufactured Products, and Construction Materials

Where applicable, the Federal agency must include appropriate terms and conditions in all awards, in accordance with applicable legal requirements and its established procedures, in order to effectuate the requirements of BABA and this guidance. The following is sample language.

To achieve the greatest possible consistency across agencies and programs, agencies should send their proposed terms and conditions to the MIAO for review prior to incorporating them into applicable awards. Agencies should include appropriate language in the Notice of Funding Opportunity to provide applicants fair notice of the Buy America conditions that will apply to funds obligated on or after that date.

** ** **

Buy America Preference. Recipients of an award of Federal financial assistance from a program for infrastructure are hereby notified that none of the funds provided under this award may be used for an infrastructure project unless:

- (1) All iron and steel used in the project are produced in the United States—this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;
- (2) All manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard that meets or exceeds this standard has been established under applicable law or regulation for determining the minimum amount of domestic content of the manufactured product; and
- (3) All construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States. The construction material standards are listed below.

Incorporation into an infrastructure project. The Buy America Preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America Preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.

Categorization of articles, materials, and supplies. An article, material, or supply should only be classified into one of the following categories: (i) Iron or steel products; (ii)

Manufactured products; (iii) Construction materials; or (iv) Section 70917(c) materials. An article, material, or supply should not be considered to fall into multiple categories. In some cases, an article, material, or supply may not fall under any of the categories listed in this paragraph. The classification of an article, material, or supply as falling into one of the categories listed in this paragraph must be made based on its status at the time it is brought to the work site for incorporation into an infrastructure project. In general, the work site is the location of the infrastructure project at which the iron, steel, manufactured products, and construction materials will be incorporated.

Application of the Buy America Preference by category. An article, material, or supply incorporated into an infrastructure project must meet the Buy America Preference for only the single category in which it is classified.

Determining the cost of components for manufactured products. In determining whether the cost of components for manufactured products is greater than 55 percent of the total cost of all components, use the following instructions:

(a) For components purchased by the manufacturer, the acquisition cost, including transportation costs to the place of incorporation into the manufactured product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(b) For components manufactured by the manufacturer, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (a), plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the manufactured product.

Construction material standards. The Buy America Preference applies to the following construction materials incorporated into infrastructure projects. Each construction material is followed by a standard for the material to be considered “produced in the United States.” Except as specifically provided, only a single standard should be applied to a single construction material.

(1) Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.

(2) Plastic and polymer-based products. All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.

(3) Glass. All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.

(4) Fiber optic cable (including drop cable). All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.

(5) Optical fiber. All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.

(6) Lumber. All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.

(7) Drywall. All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.

(8) Engineered wood. All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.

Waivers

When necessary, recipients may apply for, and the agency may grant, a waiver from these requirements. The agency should notify the recipient for information on the process for requesting a waiver from these requirements.

When the Federal agency has made a determination that one of the following exceptions applies, the awarding official may waive the application of the Buy America Preference in any case in which the agency determines that:

- (1) applying the Buy America Preference would be inconsistent with the public interest;
- (2) the types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality; or
- (3) the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent.

A request to waive the application of the Buy America Preference must be in writing. The agency will provide instructions on the format, contents, and supporting materials required for any waiver request. Waiver requests are subject to public comment periods of no less than 15 days and must be reviewed by the Made in America Office.

There may be instances where an award qualifies, in whole or in part, for an existing waiver described at [\[link to awarding agency web site with information on currently applicable general applicability waivers\]](#).

*Definitions*³⁶

“Buy America Preference” means the “domestic content procurement preference” set forth in section 70914 of the Build America, Buy America Act, which requires the head of each Federal agency to ensure that none of the funds made available for a Federal award for an infrastructure project may be obligated unless all of the iron, steel, manufactured products, and construction materials incorporated into the project are produced in the United States.

“Construction materials” means articles, materials, or supplies that consist of only one of the items listed in paragraph (1) of this definition, except as provided in paragraph (2) of this definition. To the extent one of the items listed in paragraph (1) contains as inputs other items listed in paragraph (1), it is nonetheless a construction material.

(1) The listed items are:

- (i) Non-ferrous metals;
- (ii) Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- (iii) Glass (including optic glass);
- (iv) Fiber optic cable (including drop cable);
- (v) Optical fiber;
- (vi) Lumber;
- (vii) Engineered wood; and
- (viii) Drywall.

(2) Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material.

“Infrastructure” means public infrastructure projects in the United States, which includes, at a minimum, the structures, facilities, and equipment for roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property; and structures, facilities, and equipment that generate, transport, and distribute energy including electric vehicle (EV) charging.

“Infrastructure project” means any activity related to the construction, alteration, maintenance, or repair of infrastructure in the United States regardless of whether infrastructure is the primary purpose of the project. See also paragraphs (c) and (d) of 2 CFR 184.4.

“Iron or steel products” means articles, materials, or supplies that consist wholly or predominantly of iron or steel or a combination of both.

³⁶ Federal agencies may choose to provide definitions on a public-facing website and reference that website in the terms and conditions, rather than including all definitions in the terms and conditions itself. If an agency chooses to provide definitions on a public-facing website, it is not considered a deviation from the terms and conditions provided and does not need to be reviewed by OMB.

“Manufactured products” means:

(1) Articles, materials, or supplies that have been:

- (i) Processed into a specific form and shape; or
- (ii) Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.

(2) If an item is classified as an iron or steel product, a construction material, or a Section 70917(c) material under 2 CFR 184.4(e) and the definitions set forth in 2 CFR 184.3, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under 2 CFR 184.4(e) and paragraph (1) of this definition may include components that are construction materials, iron or steel products, or Section 70917(c) materials.

“Predominantly of iron or steel or a combination of both” means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components.

“Section 70917(c) materials” means cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. See Section 70917(c) of the Build America, Buy America Act.

Appendix II: Guidance for Projects Identified at 2 CFR 184.2(b)-(c) as Remaining Subject to OMB Memorandum M-22-11

In 2 CFR part 184, OMB identifies a limited set of infrastructure projects that will remain subject to certain requirements established in Memorandum M-22-11. For projects identified at 2 CFR 184.2(b)-(c) as remaining subject to the requirements of Memorandum M-22-11, recipients and subrecipients may continue to rely on —

- a. The requirements established in Section VIII of the rescinded Memorandum M-22-11 on “Preliminary Guidance for Construction Materials,” which is included, in relevant part, in this appendix. This includes reliance on the shorter list of construction materials identified in Memorandum M-22-11 and the preliminary standard for “all manufacturing processes” applicable to construction materials on that list; and
- b. Their good faith efforts to categorize articles, materials, and supplies as (1) iron or steel products, (2) manufactured products, or (3) construction materials based on the guidance provided in Sections I, VI, and VIII of the rescinded OMB Memorandum M-22-11. In other words, recipients and subrecipients of Federal awards for these projects are not required to recategorize items based on the more specific guidance provided in 2 CFR part 184 and the associated preamble, but may rely on clarifying guidance in part 184 or the associated preamble if useful.

Below is relevant guidance for these projects restated from OMB Memorandum M-22-11 —

The IJJA finds that “construction materials” includes an article, material, or supply — other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives — that is or consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

To provide clarity to item, product, and material manufacturers and processors, items that consist of two or more of the listed materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials. For example, a plastic framed sliding window should be treated as a manufactured product while plate glass should be treated as a construction material.

Absent any existing applicable standard in law or regulation that meets or exceeds these preliminary standards, agencies should consider “all manufacturing processes” for construction materials to include at least the final manufacturing process and the immediately preceding manufacturing stage for the

construction material.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER

November 3, 2022

MEMORANDUM

SUBJECT: Build America, Buy America Act Implementation Procedures for EPA Office of Water Federal Financial Assistance Programs

FROM: Radhika Fox
Assistant Administrator

A handwritten signature in black ink, appearing to be "R. Fox", is placed to the right of the "FROM:" line.

TO: EPA Regional Water Division Directors, Regions I – X
EPA Office of Water Office Directors

OVERVIEW

The Biden-Harris Administration recognized the Nation's critical need for infrastructure investment, championing the Bipartisan Infrastructure Law (BIL), which Congress passed on November 15, 2021 (also known as the Infrastructure Investment and Jobs Act (IIJA)). The BIL will provide an unprecedented level of federal investment in water and wastewater infrastructure in communities across America.

In Title IX of the IIJA, Congress passed the Build America, Buy America (BABA) Act, which establishes strong and permanent domestic sourcing requirements across all Federal financial assistance programs for infrastructure. The U.S. Environmental Protection Agency (EPA) Office of Water is honored to help lead the implementation of these provisions and is proud of its near decade of successful implementation of the American Iron and Steel (AIS) provisions for its flagship water infrastructure programs.

This is a transformational opportunity to build a resilient supply chain and manufacturing base for critical products here in the United States that will spur investment in good-paying American manufacturing jobs and businesses. EPA's efforts to implement BABA will help cultivate the domestic manufacturing base for a wide range of products commonly used across the water sector but not currently made domestically. This will take time, and flexibility will be important to ensure that EPA can leverage critical water investments on time and on budget to protect public health and improve water quality.

IMPLEMENTATION

Recognizing the opportunity and need for BABA implementation guidance, the Made in America Office (MIAO) of the Office of Management and Budget (OMB) published [Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure](#) (OMB Guidance M-22-11) on April 18, 2022. The guidance provides government-wide implementation direction for all Federal financial assistance programs for infrastructure. Despite the extensive guidance developed by MIAO, EPA's Office of Water infrastructure investment programs have received many questions that were not addressed in OMB Guidance M-22-11 or that require further clarification for EPA water infrastructure programs. The following questions and answers serve to supplement OMB Guidance M-22-11 with implementation procedures specific to EPA's relevant water infrastructure programs.

Section 70914(a) of the IIJA states when a Buy America preference under BABA applies: "Not later than... [May 14, 2022], the head of each Federal agency shall ensure that none of the funds made available for a Federal financial assistance program for infrastructure... may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States." Therefore, Federal financial infrastructure investments obligated on or after May 14, 2022, must comply with the BABA requirements. Absent a waiver, all iron, steel, manufactured products, and construction materials permanently incorporated into an infrastructure project subject to the BABA requirements must be produced in the United States. For many of EPA's Office of Water infrastructure investment programs, the vast majority of products permanently incorporated into construction, maintenance, or repair projects must comply with the BABA requirements, with the exception of select construction materials (cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives), which are specifically excepted by the BABA statute.

EPA's Office of Water implements many infrastructure investment programs subject to BABA requirements, including the following:

- Alaska Native Villages and Rural Communities Water Grant Program (ANV) (and any associated Interagency Agreements with the Indian Health Service)
- Clean Water and Drinking Water State Revolving Fund Programs (CW and DWSRF)
- Clean Water and Drinking Water Grants to U.S. Territories and the District of Columbia
- Clean Water Indian and Drinking Water Tribal Infrastructure Grant Set-aside (and any associated Interagency Agreements with the Indian Health Service)
- Coastal Wetlands Planning, Protection and Restoration Act, (CWPPRA) Programs
- Congressionally Directed Spending/Community Project Funding (also known as Community Grants)
- Geographic Programs¹
- Gulf Hypoxia Program
- National Estuaries Program (CWA Section 320)

¹ Geographic Programs include: Great Lakes Restoration Initiative, Chesapeake Bay, San Francisco Bay, Puget Sound, Long Island Sound, Gulf of Mexico, South Florida, Lake Champlain, Lake Pontchartrain, Southern New England Estuaries, Columbia River Basin, Pacific Northwest

- 319 Nonpoint Source Management Program Implementation
- Reducing Lead in Drinking Water Grant Program (SDWA §1459B)
- Assistance for Small and Disadvantaged Communities Grants: Small, Underserved, and Disadvantaged Community Grant Program (SUDC), Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) and Drinking Water Infrastructure Resilience & Sustainability (SDWA §1459A)
- Sewer Overflow and Stormwater Reuse Municipal Grants (OSG)
- USMCA Implementing Legislation (Section 821 and Title IX, USMCA Supplemental Appropriations, 2020)
- U.S.-Mexico Border Water Infrastructure Program
- Voluntary School and Child Care Program Lead Testing and Remediation Grant Program (SDWA 1464(d))
- Water Infrastructure Finance and Innovation Act (WIFIA)

The questions and answers in this document apply to the implementation of BABA requirements for the Office of Water infrastructure programs listed above unless superseded by regulation, statute, or other applicable guidance. For many of the programs listed above which did not have domestic preference requirements prior to BABA, additional implementation details are pending or may be developed after the issuance of these procedures. In addition, EPA notes that more direction will be helpful to inform the determination and definition of domestic content in manufactured goods. Supplemental guidance on these and other issues, from either OMB or EPA, may be forthcoming. These implementation procedures may also apply to additional, unlisted EPA programs which may be required to apply BABA subsequent to publication of this memorandum (e.g., future funding programs which have been authorized, but not yet appropriated).

For more information on the BABA requirements, visit the EPA Office of Water’s dedicated website – <https://www.epa.gov/cwsrf/build-america-buy-america-baba> – or contact your funding authority (such as your grants officer, portfolio manager, or state contact). For information on approved waivers, visit <https://www.epa.gov/cwsrf/build-america-buy-america-baba-approved-waivers>. You may also email questions to BABA-OW@epa.gov.

This Implementation Procedures document is organized to provide responses to questions in the following topic areas:

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QUESTIONS AND ANSWERS

SECTION 1: GENERAL

- Q1.1: Will EPA provide documentation for BABA for bid solicitations and suggested contract language? Will EPA provide suggested language for Assistance Agreements?
 - A1.1: See Appendix 1, which includes suggested language for construction contracts which addresses the BABA requirements. In addition to the language suggested in Appendix 1, EPA also recommends that assistance recipients prepare contract bid solicitation documents with a statement for the consulting engineers and construction firms as follows: “By signing payment application and recommending payment, Contractor certifies they have reviewed documentation for all products and materials submitted for payment, and the certifications are sufficient to demonstrate compliance with Build America, Buy America Act requirements.” In most cases, the assistance recipient’s representatives assume the responsibility for their clients to conduct due diligence on compliance with applicable domestic preference requirements.

All Federal Financial infrastructure assistance agreements subject to BABA must have a clause requiring compliance with the requirements. See Appendix 2 for example assistance agreement language.

- Q1.2: Would federally-financed infrastructure projects outside of the United States need to comply with the BABA requirements?
 - A1.2: No. According to the OMB Guidance (M-22-11), a “project” is defined as “...any activity related to the construction, alteration, maintenance, or repair of infrastructure in the United States.” Therefore, the BABA requirements are not implicated for infrastructure projects occurring outside of the United States, such as projects funded through the United States-Mexico-Canada Agreement with infrastructure activities occurring in Mexico or Canada (that is, outside the United States).
 -
- Q1.3: If most of the project is BABA compliant, and a small portion is not, can an assistance recipient self-fund (i.e., paying with non-federal dollars) the non-compliant products?
 - A1.3: Any project that is funded in whole or in part with federal assistance must comply with the BABA requirements, unless the requirements are otherwise waived. All iron, steel, manufactured products, and construction materials used in a project must meet the BABA requirements unless waived. Absent a waiver, there is no “small portion” or product that does not need to satisfy the BABA requirements unless the requirements are waived (or specifically excluded as is the case for cement and cementitious materials; aggregates such as stone, sand, or gravel; aggregate binding agents or additives; or non-permanent products). An assistance recipient may request a waiver or inquire as to whether a broad waiver, such as a *de minimis* waiver, might apply.

- Q1.4: How do international trade agreements affect the implementation of the BABA requirements?
 - A1.4: The BABA requirements apply in a manner consistent with United States obligations under international trade agreements. Typically, these obligations only apply to direct procurement by the entities that are signatories to these trade agreements. In general, assistance recipients are not signatories to such agreements, so these trade agreements have no impact on BABA implementation. In the few instances where such an agreement applies to a municipality, that municipality is responsible for determining its applicability and requirements and communicating with the funding authority (such as EPA and/or a state) on the actions taken to comply with BABA.

SECTION 2: PRODUCT COVERAGE

- Q2.1: For products made of iron and steel, what is the difference between predominantly and primarily iron and steel?
 - A2.1: EPA considers the terms “predominantly” and “primarily” to be interchangeable, such that a product is considered predominantly (or primarily) iron and steel if it contains greater than 50 percent iron and steel by material cost.
- Q2.2: What is the definition of construction materials (with examples)?
 - A2.2: From OMB Guidance M-22-11: “construction materials” include an article, material, or supply (other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; aggregate binding agents or additives; or non-permanent products) that is or consists primarily of:
 - non-ferrous metals,
 - plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables), (including optic glass),
 - lumber, and
 - drywall.

For example, a plate of glass would be a construction material under BABA, but a framed window that incorporates the glass into a frame would be a manufactured product. Another common construction material for water infrastructure projects would be polyvinyl chloride (PVC) pipe and fittings. However, if PVC components are incorporated into a more complex product such as instrumentation and control equipment or a water treatment unit, those items would be manufactured products.

- Q2.3: What are manufactured products (with examples)?
 - A2.3: From OMB Guidance M-22-11: “...all manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total

cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation...”

The manufactured products category would cover the majority of potential water infrastructure products, including complex products made up of a variety of material types and components. For water infrastructure projects, common manufactured products would include, but not be limited to, pumps, motors, blowers, aerators, generators, instrumentation and control systems, gauges, meters, measurement equipment, treatment equipment, dewatering equipment, actuators, and many other mechanical and electrical items.

- Q2.4: Which category will valves fall under for BABA? Will it differ from the American Iron and Steel (AIS) requirements?
 - A2.4: For programs that are subject to BABA and AIS (SRF, WIFIA, and Community Project Funding), projects using valves should classify them as iron and steel products under BABA as long as their material cost is made up of more than 50 percent iron and/or steel. Valves with 50 percent or less iron and/or steel by material cost would be considered manufactured products under the BABA requirements.

In accordance with OMB Guidance M-22-11, an article, material, or supply should be classified into only one of the three categories: iron and steel, manufactured products, or construction materials. Under the AIS requirements, all valves made primarily of iron and steel (that is, those with iron and/or steel material cost greater than 50 percent) must comply with the AIS requirements. For BABA, EPA interprets Section IV of OMB Guidance M-22-11 to mean that iron and steel products are those items that are primarily iron and steel, the same as for the AIS requirements.

- Q2.5: Does EPA have a list of products to be classified as “Iron and Steel” under BABA?
 - A2.5: Although this list is not comprehensive, the following products were classified as AIS products if made primarily (more than 50 percent) of iron and/or steel by materials cost (for programs subject to both AIS and BABA, this list would be equivalent for “iron and steel” items or products under either requirement):

Products likely made “primarily” of iron and steel to be classified as <u>Iron and Steel</u> under BABA		
Lined and Unlined Pipe	Lined and Unlined Fittings	Tanks
Flanges	Pipe Clamps and Restraints	Structural Steel
Valves	Hydrants	Pre-Cast, Iron/Steel Reinforced Concrete (of all types, regardless of iron/steel content percentage)
Manhole Covers and other Municipal Castings	Access Hatches	Ballast Screens
Iron or Steel Benches	Bollards	Cast Bases
Cast Iron Hinged Hatches	Cast Iron Riser Rings	Catch Basin Inlets
Cleanout/Monument Boxes	Construction Covers and Frames	Curb and Corner Guards

Products likely made “primarily” of iron and steel to be classified as <u>Iron and Steel</u> under BABA		
Curb Boxes	Curb Openings	Curb Stops
Detectable Warning Plates	Downspout Shoes	Drainage Grates
Drainage Grate Frames and Curb Inlets	Inlets	Junction Boxes
Lampposts	Manhole Rings and Frames	Manhole Risers
Meter Boxes	Service Boxes	Steel Hinged Hatches
Steel Riser Rings	Trash Receptacles	Tree Grates
Tree Guards	Trench Grates	Valve Boxes
Valve Box Covers and Risers	Access Ramps	Aeration Pipes and Fittings (separate from aeration/blowers)
Angles	Backflow Preventers/Double Check Valves	Baffle Curtains
Iron or Steel Bar	Bathroom Stalls	Beam Clamps
Cable Hanging Systems	Clarifier Tanks	Coiled Steel
Column Piping	Concrete Reinforcing Bar, Wire, and Fibers	Condensate Sediment Traps
Corrugated Pipe	Couplings	Decking
Digester Covers	Dome Structures	Door Hardware
Doors	Ductwork	Expansion Joints
Expansion Tanks (diaphragm, surge, and hydropneumatics)	Fasteners	Fencing and Fence Tubing
Fire Escapes	Flanged Pipe	Flap Gates
Framing	Gate Valves	Generic Hanging Brackets
Grating	Ground Testing Boxes	Ground Test Wells
Guardrails	HVAC Registers, Diffusers, and Grilles	Joists
Knife Gates	Ladders	Lifting Hooks, J-bar, Connectors within, and Anchors for Concrete
Lockers	Man Baskets and Material Platforms	Manhole Steps
Mud Valves	Municipal Casting Junctions	Non-mechanical (aka stationary) Louvers and Dampers
Overhead Rolling Doors/ Uplifting Doors (manual open, no motor)	Pipe Connectors	Pipe Hangers
Pipe Pilings (any type of steel piling)	Pipe Spool (pipe, flanges, connectors, etc.)	Pipe Supports
Pitless Adaptors	Pre-fab Steel Buildings/Sheds (simple structure, unfurnished)	Pre-stressed Concrete Cylinder Pipe (PCCP)
Railings	Reduced Pressure Zone (RPZ) Valves	Roofing
Service Saddles	Sheet Piling	Sinks (not part of eyewash systems)
Solenoid Valves	Stairs	Static Mixers
Stationary Screens	Surface Drains	Tapping Sleeves
Telescoping Valves	Tipping Buckets	Trusses
Tubing	Valve Stem Extensions	Valve Stems (excluding handwheels and actuators)
Wall Panels	Wall Sleeves/Floor Sleeves	Welding Rods
Well Casing	Well Screens	Wire
Wire Cloth	Wire Rod	Wire Rope and Cables

Q2.6: Does EPA have a list of products that could be made “primarily” of iron and steel but would be classified as “manufactured products” under BABA?

A2.6: Although this list is not comprehensive, the following products would be considered “manufactured products” under the BABA requirements, even if the item might be composed primarily of iron and steel by materials cost (Note: These items are not subject to the AIS requirements.):

Products likely made “primarily” of iron and steel to be classified as <u>Manufactured Products</u> under BABA		
Actuator Superstructures/ Support Structures	Aeration Nozzles and Injectors	Aerators
Analytical Instrumentation	Analyzers (e.g., ozone, oxygen)	Automated Water Fill Stations
Blowers/Aeration Equipment	Boilers, Boiler Systems	Chemical Feed Systems (e.g., polymer, coagulant, treatment chemicals)
Chemical Injection Quills	Chemical Injectors	Clarifier Mechanisms/Arms
Compressors	Controls and Switches	Conveyors
Cranes	Desiccant Air Dryer Tanks	Dewatering Equipment
Dewatering Roll-offs	Disinfection Systems	Drives (e.g., variable frequency drives)
Electric/Pneumatic/Manual Accessories Used to Operate Valves (such as electric valve actuators)	Electrical Cabinetry and Housings (such as electrical boxes/enclosures)	Electrical Conduit
Electrical Junction Boxes	Electronic Door Locks	Elevator Systems (hydraulic, etc.,)
Emergency Life Systems (including eyewash stations, emergency safety showers, fire extinguishers, fire suppression systems including sprinklers /piping/valves, first aid, etc.)	Exhaust Fans	Fall Protection Anchor Points
Fiberglass Tank w/Appurtenances	Filters (and appurtenances, including underdrains, backwash systems)	Flocculators
Fluidized Bed Incinerators	Galvanized Anodes/Cathodic Protection	Gear Reducers
Generators	Geothermal Systems	Grinders
Heat Exchangers	HVAC (excluding ductwork)	HVAC Dampers (if appurtenances to aerators/blowers)
HVAC Louvers (mechanical)	Intake and Exhaust Grates (if appurtenances to aerators/blowers)	Instrumentation
Laboratory Equipment	Ladder Fall Prevention Systems	Ladder Safety Posts
Lighting Fixtures	Lightning and Grounding Rods	Mechanical or Actuated Louvers/Dampers
Membrane Bioreactor Systems	Membrane Filtration Systems	Metal Office Furniture (fixed)
Meters (including flow, wholesale, water, and service connection)	Motorized Doors (unit)	Motorized Mixers
Motorized Screens (such as traveling screens)	Motors	Pelton Wheels
Pipeline Flash Reactors (similar to injectors)	Plate Settlers	Precast Concrete without Iron/Steel Reinforcement

Products likely made “primarily” of iron and steel to be classified as <u>Manufactured Products</u> under BABA		
Furnished Pre-fab Buildings (such as furnished with pumps, mechanics inside)	Presses (including belt presses)	Pressure Gauges
Pump Cans/Barrels and Strainers	Pumps	Mechanical Rakes
Safety Climb Cable	Sampling Stations (unless also act as hydrant)	Scrubbers
Sensors	Sequencing Batch Reactors (SBR)	Steel Shelving (fixed)
Slide and Sluice Gates	Spray Header Units	Steel Cabinets (fixed interior/furniture)
Supervisory Control and Data Acquisition (SCADA) Systems	Tracer Wire	Valve Manual Gears, Actuators, Handles
Voltage Transformer	Water Electrostatic Precipitators (WESP)	Water Heaters
Weir Gates		

- Q2.7: Is asphalt paving a covered product under BABA?
 - A2.7: No. EPA interprets Section 70917(c) of the IIJA to exclude asphalt from BABA requirements. Asphalt paving is a type of concrete composed of an aggregate material mixed with a binder (bitumen). EPA considers asphalt concrete to be excluded by section 70917(c) due to its similarities with cement and cementitious materials.

SECTION 3: CO-FUNDING

- Q3.1: If projects are co-funded with funding mechanisms that don’t require BABA, must the entire project comply with BABA?
 - A3.1: Yes. Any project that is funded in whole or in part with federal assistance must comply with the BABA requirements, unless the requirements are otherwise waived. A “project” consists of all construction necessary to complete the building or work regardless of the number of contracts or assistance agreements involved so long as all the contracts and assistance agreements awarded are closely related in purpose, time, and place. This precludes the intentional splitting of projects into separate and smaller contracts or assistance agreements to avoid BABA’s applicability on some portions of a larger project, particularly where the activities are integrally and proximately related to the whole. However, there are many situations in which major construction activities are clearly undertaken in separate phases that are distinct in purpose, time, or place, in which case, separate contracts or assistance agreements would carry separate requirements.

- Q3.2: How will project requirements be determined for co-funded projects subject to potentially different general applicability/programmatic waiver conditions (such as different adjustment period waivers)?
 - A3.2: OMB Guidance M-22-11 addresses cases with project co-funding from separate programs. EPA would apply the guidance’s “cognizant” program determination to projects that are co-funded with different general applicability/programmatic waivers. For instance, if a project were co-funded between WIFIA and SRF and the majority of the Federal funding for the project is from WIFIA, then WIFIA would be the “cognizant” program for application and determination of waivers. In that case, any conditions from an applicable WIFIA waiver would apply.

SECTION 4: WAIVERS

- Q4.1: Who may apply for a waiver and how do you apply?
 - A4.1: Assistance recipients and their authorized representatives may apply for a project-specific waiver. EPA does not accept waiver requests from suppliers, distributors, or manufacturers unless the assistance recipient endorses and submits the request on its own behalf to the funding authority. In the case where multiple programs are providing federal funds to the project, the assistance recipient should submit the waiver request to the cognizant program, the one providing the greatest amount of federal funds for the project. For information on applying for cost waivers, see questions 4.4 and 4.5. For information on the SRF program roles and responsibilities, see question 7.6.

Project-specific waiver requests should generally include: (1) a brief summary of the project, (2) a description and explanation of the need for the waiver for the product(s) in question, (3) a brief summary of the due diligence conducted in search of domestic alternatives (which could include correspondence between assistance recipient and supplier/distributors), (4) the quantity and materials of the product(s) in question, (5) all engineering specifications and project design considerations relevant to the product(s) in question, (6) the approximate unit cost of items (both foreign and domestic) in addition to an estimated cost of the materials and overall project, (7) the date any products will be needed on site in order to avoid significant project schedule disruptions, and (8) any other pertinent information relevant to EPA’s consideration of the waiver (e.g., if relevant for SRF projects: whether the project is designated as an equivalency project, the date the plans and specifications were submitted to the state, the date of construction initiation, expected date of project completion, any special considerations such as local zoning and building ordinances, seismic requirements, or noise or odor control requirements).

In the case of indirect federal assistance, such as the SRF programs, the state authority reviews and conveys the waiver request to EPA. States should submit waiver requests to the appropriate program waiver request inbox. For SRF projects, please use CWSRFWaiver@epa.gov or DWSRFWaiver@epa.gov.

- Q4.2: Can an assistance recipient request a waiver based on a specification written for a specific brand or model of product (that is, a specification that names a branded item or model)?
 - A4.2: In most cases, performance-based specifications are expected and required for the majority of infrastructure projects funded by EPA’s financial assistance programs. In rare cases where “branded” or product-specific sourcing may be included in project specifications, it is suggested that the specifications include the item in question (that is, not simply a catalog page, but also materials of construction, sizing, quantities, and applicable engineering performance design characteristics for the project, etc.) in addition to the standard phrase “or equal.” For the purposes of product alternative market research, EPA will evaluate the BABA requirements based on performance-based engineering specifications for the product(s) in question. If the project’s specifications do not include performance-based specifications, or at least an “or equal” designation, EPA will base its research on an “or equal” designation using best professional judgment to the extent practicable.
- Q4.3: If a manufactured product is not readily available domestically, will EPA provide short-term “limited availability” product waivers?
 - A4.3: EPA will address the unavailability of domestic products through the waiver process, including potential national short-term waivers for specific products, if appropriate. To the extent practicable and with the intent to maximize domestic market and supply chain development, EPA intends to address issues of broad product unavailability with targeted, time-limited, and conditional waivers, as prescribed in OMB Guidance M-22-11. EPA will follow its robust and thorough product research processes (those put into place for the AIS requirements for the SRF and WIFIA programs and expanded for the new BABA requirements) to identify and determine those products for which proposed national/general applicability waivers may be appropriate.
- Q4.4: What information is needed when applying for a cost waiver under BABA?
 - A4.4: As part of the cost waiver request, the assistance recipient must demonstrate that implementation of the BABA requirements will increase the overall project cost more than 25 percent. Depending on the circumstances of the overall project cost increases, documentation to justify the cost waiver can vary but may include itemized cost estimates or bid tabulations comparing project costs with and without BABA implementation. Assistance recipients should begin assessing the potential cost impacts of the BABA requirements during the design phase of a project.
- Q4.5: Can administrative costs associated with tracking and verification of certifications be considered when determining if the cost of a project increases by 25 percent or more?
 - A4.5: Yes. Section 70914(b)(3) of the IIJA states that a waiver may be provided if the overall cost of the project increases by more than 25 percent due to the “inclusion of iron, steel, manufactured products, or construction materials produced in the United States.” EPA interprets this to mean that the “inclusion” of the BABA-covered products could encompass

reasonable administrative costs associated with complying with the BABA requirements, such as staff, contractor, and technological resources to collect and track BABA compliance documentation.

- Q4.6: How can assistance recipients and construction contractors address product delivery delays?
 - A4.6: Assistance recipients should reasonably plan for material procurement to account for known potential supply chain issues or extended lead times and shall notify the funding authority well in advance of the issues so that prompt attention can be given to explore options. Where extended lead times for compliant products are impacting project schedules and may significantly impact construction progress, timely communication with the funding agency is important. For products that are unavailable within a reasonable timeframe to meet the objectives and schedule of a project, EPA may consider a non-availability waiver with adequate justification. An assistance recipient would need to apply for the waiver and contact its funding authority (such as EPA and/or a state) to initiate the waiver process.

SECTION 5: DOCUMENTING COMPLIANCE

- Q5.1: Who will be responsible for BABA enforcement?
 - A5.1: Responsibility for BABA implementation applies at all levels, from manufacturers to suppliers and distributors, construction contractors, assistance recipients, and funding authorities.

The manufacturers have responsibility to provide adequate and accurate documentation of the products manufactured. If suppliers and distributors are involved, they are responsible for passing along compliance documentation for products supplied to projects that are subject to the BABA requirements.

The assistance recipient and their representatives are primarily responsible for ensuring the documentation collected for products used on the project is sufficient to document compliance with the BABA requirements.

The funding authority is responsible for providing oversight and guidance as needed to ensure the proper implementation of the requirements. The Uniform Grants Guidance (UGG) (Title 2 of the Code of Federal Regulations (CFR) Part 200) applies to many Federal financial assistance agreements that will include BABA requirements. The general provisions of 2 CFR Part 200 determine the responsible party for the grant funding authority.

For information on SRF program roles and responsibilities, see question 7.6.

At all levels, where fraud, waste, abuse, or any violation of the law is suspected, the Office of Inspector General (OIG) should be contacted immediately. The OIG can be reached at 1-888-546-8740 or OIG_Hotline@epa.gov. More information can be found at this website: <http://www.epa.gov/oig/hotline.htm>.

- Q5.2: When will the BABA requirements be assessed for compliance? Do assistance recipients need to have waivers for potential non-domestic products before assistance agreements are in place, at the time products are procured or products are incorporated into the project (i.e., used)?
 - A5.2: Compliance is assessed where the domestic product is used (or installed) at the project site. Proper compliance documentation, whether it is a BABA certification letter or a waiver, should accompany a product prior to its “use”, in accordance with Section 70914(a) of IIJA. This may occur prior to assistance agreements being in place but is not necessary. Additionally, communication of BABA requirements through appropriate Terms and Conditions in financial assistance agreements and in project solicitation and contract documents is key in ensuring all parties involved are informed of the requirements for the project before construction is underway.
- Q5.3: How can product compliance with the BABA requirements be demonstrated?
 - A5.3: Assistance recipients and their representatives should ensure that the products delivered to the construction site are accompanied by proper documentation that demonstrate compliance with the law and be made available to the funding authority upon request. The documentation may be received and maintained in hard copy, electronically, or could be embedded in construction management software. The use of a signed certification letter for the project is the most direct and effective form of compliance documentation for ensuring products used on site are BABA-compliant prior to their installation; however, other forms of documentation are also acceptable as long as collectively, the following can be demonstrated:
 - (1) Documentation linked to the project. For example, this can be in the form of the project name, project location, contract number, or project number.
 - (2) Documentation linked to the product used on the project. For example, description of product(s) (simple explanation sufficient to identify the product(s)), or an attached (or electronic link to) purchase order, invoice, or bill of lading.
 - (3) Documentation includes statement attesting that the products supplied to the assistance recipient are compliant with BABA requirement. Reference to the Infrastructure Investment and Jobs Act (“IIJA”) or the Bipartisan Infrastructure Law (BIL) are also acceptable. For iron and steel items under BABA, references to the American Iron and Steel (AIS) requirements are also acceptable and reciprocal with BABA for such items.
 - (4) Documentation that manufacturing occurred in the United States, which could include, for example, the location(s) of manufacturing for each manufacturing step that is being certified. It is acceptable for manufactured products to note a single point of manufacturing, documenting that the final point of manufacturing is in the United States. Note that each BABA category may require different determinations for compliance.
 - (5) Signature of company representative (on company letterhead and signature can be electronic). The signatory of the certifying statement affirms their knowledge of the manufacturing processes for the referenced product(s) and attests that the product meets the BABA requirements.

In addition to compliance documentation, assistance recipients or their representatives should also conduct a visual inspection of the product when it arrives to the project site, especially for iron and steel products which are often stamped with the country of origin. (Note: A country of origin stamp alone is not sufficient verification of compliance with BABA and assistance receipts should not rely on it to ensure compliance.)

EPA may develop alternative procedures for demonstrating compliance. Additional project- or program-specific instructions may be developed on a case-by-case basis in order to meet individual circumstances.

- Q5.4: Will EPA provide a form or template for tracking and documenting compliance?
 - A5.4: EPA does not require a specified format for tracking or documenting compliance. Assistance recipients are free to develop any system (from simple to complex software) for tracking items used on the project and the accompanying compliance documentation, e.g., certification letters, applicable waivers, if it helps with implementation and compliance. Elements that may help with keeping track of compliance may include: product description, quantity required/used, product category (i.e., iron and steel, manufactured product, or construction material), status of obtaining certification letter, product cost, and whether the item might qualify as *de minimis*, or qualify under another applicable waiver.
- Q5.5: If a manufacturer claims to comply with the Buy American Act, does it also comply with BABA?
 - A5.5: No. With the exception of the AIS requirements – which EPA interprets to be equivalent to the “iron and steel” requirements under BABA – EPA does not have an interpretation about the comparability of other domestic preference requirements relative to BABA. Any products that are to be certified as compliant with BABA should include a specific reference to the BABA requirements and appropriate attestation from a responsible manufacturing company official. See Question 5.3 for EPA’s recommendations for BABA certification letters.
- Q5.6: How will assistance recipients manage certification letters for hundreds, possibly thousands of products?
 - A5.6: EPA recognizes that the new BABA requirements will cover most products used in typical water and wastewater infrastructure projects, and that the number of items which may require certification at large and/or complex projects may reach several hundred. EPA is concerned about the potential administrative burden that this would place on assistance recipients. EPA recommends that projects with a high number of potentially covered products meet with their funding authority about potential compliance strategies to minimize burden and streamline compliance activity. Assistance recipients should prepare contract bid solicitation documents with a statement for the consulting engineers and construction firms as follows: “By signing payment application and recommending payment, Contractor certifies they have reviewed documentation for all products and materials submitted for payment, and the documentation is sufficient to demonstrate compliance with Build America,

Buy America Act requirements.” In most cases, the assistance recipient’s representatives may assume the responsibility for their clients to conduct due diligence on compliance with applicable domestic preference requirements.

- Q5.7: Who is responsible for documenting the 55 percent content requirement for manufactured products under BABA? What if the final manufacturer cannot trace or verify domestic origin for all components?
 - A5.7: The manufacturer who signs a certification letter is responsible for documenting compliance with any of the three categories of products (iron and steel, manufactured products, or construction materials). For manufactured products, BABA requires that greater than 55 percent of the total cost of all components of the manufactured product be from domestic sources. EPA recommends that the certification letter for manufactured products document whether the item passes the content test in the final product along with a statement attesting to compliance with the BABA requirements for manufactured products.
- Q5.8: How do final product fabricators document compliance when the final step of manufacturing may be simply assembling components?
 - A5.8: It is acceptable, in many cases, especially for highly complex manufactured products that utilize many sub-components, for the final point of assembly to certify without using a “step certification” process. Multiple certifications (i.e., step certifications) or a singular certification can be used for a product, as long as the certifying official is willing to attest to the product’s compliance with BABA requirements at all stages of manufacturing.
- Q5.9: Will Material Test Reports be acceptable in lieu of a BABA certification for iron and steel?
 - A5.9: Material Test Reports (MTRs, commonly referred to as “Mill Certifications” or “Mill Certs”) provide the chemical composition of steel and iron from a mill or foundry. If an MTR accompanies the delivery of steel or iron to a project site with an invoice or bill of lading, EPA will consider it sufficient to demonstrate compliance (equivalent to a certification letter) as long as the MTR includes a manufacturer representative’s signature in addition to the location (city and state) of the mill/foundry. It is common for MTRs to be the first letter in a “step certification” if the product is further fabricated or painted, etc., by another manufacturer.
- Q5.10: Can a manufacturer use a fillable certification letter for products?
 - A5.10: EPA recommends that certifications be signed by representatives of the manufacturing entity. EPA does not oppose manufacturers using forms to internally develop letters within their company, thereby providing signed, non-manipulable certification letters to suppliers, distributors, and/or assistance recipients. A fillable form that can be changed by someone outside of the manufacturer after signature does not demonstrate compliance and may create compliance concerns for the manufacturer or assistance recipient.

- Q5.11: Are product certifications from suppliers and distributors allowed?
 - A5.11: EPA recommends that representatives of product manufacturers certify compliance and discourages suppliers and distributors from creating certification letters. EPA does not rule out the possibility that a third-party certification process, such as a certification by a distributor, may be viable. However, EPA is currently not aware of a system or proposed system that meets the EPA's recommendations for documentation of product certification.
- Q5.12: How long should assistance recipients keep compliance documentation?
 - A5.12: Assistance recipients should apply recordkeeping requirements for the project according to the procedures dictated by the funding authority. For most EPA grant programs, this is prescribed in the UGG at 2 CFR 200.334-200.338; e.g., the SRF programs require a minimum of three years. Other funding programs may require longer documentation retention periods.

SECTION 6: PROGRAMS WITH AMERICAN IRON AND STEEL REQUIREMENTS

- Q6.1: Does BABA supersede the American Iron and Steel (AIS) Requirements?
 - A6.1: The BABA requirements for items considered “iron and steel” are equivalent to those for covered iron and steel products under the AIS requirements in the Clean Water Act and the Safe Drinking Water Act. These requirements apply to the CWSRF, DWSRF, WIFIA, and Water infrastructure Community Grants. BABA includes a “Savings Provision” (Section 70917(b)) that states that BABA does not affect existing domestic content procurement preferences for infrastructure projects funded by Federal financial assistance programs that meet the requirements of section 70914. EPA views the AIS requirements as meeting the “iron and steel” product requirements of BABA Section 70914, as they both include the key requirement that items made of iron and steel be wholly manufactured in the United States from the point of melting and/or pouring the iron or steel components through final manufacturing step. Because of the “Savings Provision” of Section 70917, the AIS requirements satisfy the “iron and steel” requirements of BABA. For the programs that have AIS requirements, EPA intends to implement BABA requirements the same way for iron and steel items as it has done for AIS products.
- Q6.2: For iron and steel products, does a manufacturer need to demonstrate compliance from initial melting through the finished product?
 - A6.2: For iron and steel products, the BABA requirements are the same as the existing AIS requirements, in that all of the iron and steel in a covered product (that is, the product is comprised of more than 50 percent iron and steel by material cost) must be melted and poured in the United States and all subsequent manufacturing processes (such as grinding, rolling, bending, reheating, and casting) must occur in the United States.

Q6.3: Will EPA apply the same manufacturing standards for BABA iron and steel products as for the American Iron and Steel (AIS) requirements?

- A6.3: Yes. For AIS, EPA did not require raw materials used in the production of steel or iron to be domestically sourced. For BABA, EPA interprets the requirements to be the same. Hence, like AIS, raw materials in the production of iron and steel subject to BABA requirements would not need to be domestically sourced. The key step for both AIS and BABA domestic iron and/or steel production is the melting/pouring (that is, the location of the furnace), which must be in the United States.

- Q6.4: Will the certification process be similar to the process established for the American Iron and Steel requirements?

- A6.4: EPA expects the certification process for the BABA requirements to be very similar to that established for the AIS requirements. For iron and steel products, the process should remain the same for AIS and BABA. EPA recommends for manufactured products and for construction materials that certification letters include direct reference to the product/material content requirements under BABA, in addition to an affirmative statement verifying that the product meets the BABA requirements.

- Q6.5: Will duplicate certification letters be required for AIS and BABA for iron/steel products?

- A6.5: No. Compliance with BABA requirements will be sufficient to demonstrate compliance with AIS requirements for iron and steel products. If a project is subject to BABA, the only demonstration of compliance necessary is with the BABA requirements, of which the iron and steel requirements are equivalent to those of the AIS statutory requirements: the iron or steel in a product made primarily or predominantly of iron and steel (comprising more than 50 percent iron and steel by material cost) must be melted and/or poured in the United States and all subsequent manufacturing processes must occur in the United States.

SECTION 7: PROGRAM-SPECIFIC ISSUES

- Q7.1.: How do the BABA requirements apply to Community Grants?

- A7.1: The Community Project Funding/Congressionally Directed Spending grants for the construction of drinking water, wastewater, and stormwater infrastructure and for water quality protection are subject to the requirements specified in the explanatory statement accompanying the Consolidated Appropriations Act (Explanatory Statement for Division G of P.L. 117-13, the Consolidated Appropriations Act of 2022). The explanatory statement asserts: “Applicable Federal requirements that would apply to a Clean Water State Revolving Fund or Drinking Water State Revolving Fund project grant recipient shall apply to a grantee receiving a CPF grant under this section.” Therefore, the federally funded Community Project Funding/Congressionally Directed Spending grants are subject to the same requirements that apply to CWSRF or DWSRF projects, including BABA and AIS requirements. See also A1.2.

- Q7.2: Should SRF projects covered by the BABA SRF Projects Design Planning Adjustment Period Waiver follow the same procedures for demonstrating compliance as outlined for American Iron and Steel requirements?
 - A7.2: Yes. The SRF Design Planning Adjustment Period waiver does not waive the iron and steel requirements under BABA. The SRF programs have existing domestic preference requirements for SRF projects under CWA Section 608 and SDWA Section 1452(a)(4) (AIS requirements) to use iron and steel products that are produced in the United States. Sections 70917(a) and (b) of BIL explain the application of BABA to existing domestic preference requirements. Specifically, the savings provision in Section 70917(b) states that existing domestic preference requirements that meet BABA requirements are not affected by BABA. The statutory AIS requirements were existing at the time BABA became law and satisfy the BABA iron and steel requirements. Therefore, the statutory AIS requirements that have previously applied to SRF-funded projects will continue to do so, and compliance with AIS requirements will satisfy the BABA iron and steel requirements. Demonstration of compliance for iron and steel products will follow the AIS implementation policies for projects subject to the waiver.
- Q7.3: For SRF programs, is BABA considered a federal cross-cutting authority? (i.e., do “equivalency” rules apply?)
 - A7.3: Yes, BABA is considered a federal cross-cutting requirement that applies to SRF assistance equivalent to the federal capitalization grant (i.e., “equivalency” projects). EPA’s SRF regulations at 40 CFR 35.3145 and 35.3575 require states and recipients of SRF funds equivalent to the amount of the federal capitalization grant to comply with federal cross-cutting requirements. Section 70914 of the IIJA, which states when a Buy America preference applies, explains that “none of the funds made available for a Federal financial assistance program for infrastructure...may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States.” Therefore, BABA only applies to projects funded in an amount equivalent to the federal capitalization grant and not to those projects receiving funds in excess of the capitalization grant (i.e., “non-equivalency” projects). (Note: The AIS requirements continue to apply for all SRF projects, including non-equivalency projects, and all WIFIA and Community Grant projects, because equivalency does not apply.)
- Q7.4: Do the BABA requirements apply to Drinking Water State Revolving Fund set-asides?
 - A7.4: Due to requirements related to the deposit of funds in the DWSRF program, almost all of the funds used to conduct set-aside activities are Federal dollars. Therefore, Federal cross-cutting requirements must be applied to all set-aside activities. However, in the case of most set-aside activities, the cross-cutting requirements will not be implicated because of the nature of the activities conducted under the set-asides. Because the BABA requirements only apply to infrastructure, and infrastructure typically is not an eligible set-aside expenditure (with one potential exception being loans for incentive-based source water protection

measures under the Local Assistance and Other State Programs Set-Aside), the BABA requirements will not apply to most set-aside activities.

- Q7.5: What if an SRF project is refinanced using Federal financial assistance on or after May 14, 2022?
 - A7.5: If an SRF project began construction, financed from another funding source, prior to May 14, 2022, but is refinanced through an assistance agreement executed on or after that date, BABA requirements will apply to all construction that occurs on or after May 14, 2022, through completion of construction, unless a waiver applies. There is no retroactive application of the BABA requirements where a refinancing occurs for an SRF project that has completed construction prior to May 14, 2022. (Note: If SRF funding is used for the refinancing, the AIS requirements may still apply depending on the timing of construction.)
- Q7.6: What are the roles and responsibilities for SRF programs for BABA implementation?
 - A7.6: Implementation of the BABA requirements for the State Revolving Fund programs will continue the roles and responsibilities from the successful AIS implementation process.

As with AIS, it is both the assistance recipient's and the state's responsibility to ensure compliance with the BABA requirements. The state is the recipient of a federal capitalization grant and must comply with all grant conditions, including a condition requiring adherence to BABA requirements.

Consequently, states are strongly advised to conduct site visits of projects during construction and review documentation demonstrating the assistance recipient's proof of compliance. In EPA's experience, most states conduct periodic site visits and arrange timely meetings with funded projects. Observed best practices typically include a meeting early in the process (sometimes before bid and usually prior to commencing construction) and at least one project site visit during the construction process. Assistance recipients must maintain documentation of compliance with the BABA requirements, as explained in question 5.3. The documents must be kept by the assistance recipient and should be reviewed by the state during project reviews.

The state's role in the waiver process is to review any waiver requests submitted to the state to ensure that all necessary information has been provided by the assistance recipient prior to forwarding the request to EPA. If a state finds the request lacking, the state should work with the assistance recipient to help obtain complete information. Question 4.1 explains the information needed by EPA to expediently review a waiver request.

In order to implement the BABA requirements, EPA has developed an approach for effective and efficient implementation of the waiver process to allow projects to proceed in a timely manner. The framework described below will allow states, on behalf of the assistance recipients, to apply for waivers of the BABA requirements directly to EPA Headquarters. Only waiver requests received and/or endorsed from states will be considered. Pursuant to BABA, EPA has the responsibility to make findings as to the issuance of waivers to the BABA requirements.

Step-by-step SRF Waiver Process

The waiver process begins with the assistance recipient. To fulfill the BABA requirements, the assistance recipient must in good faith design the project (where applicable) and solicit bids for construction with American-made iron and steel, manufactured goods, and construction materials. It is essential that the assistance recipient include the BABA terms in any request for proposals or solicitations for bids, and in all contracts (see Appendix 2 for sample construction contract language). The assistance recipient may receive a waiver at any point before, during, or after the bid process, if one or more of three statutory conditions is demonstrated to EPA and approved.

To apply for a project-specific waiver, the assistance recipient should email the request in the form of a Word document (.doc) or editable PDF (.pdf) to the funding program. It is strongly recommended that each state identify a person or persons for BABA communications. The state designee(s) will review the application for the waiver and determine whether the necessary information has been included (Note: More information may be provided in the future regarding what information is required to be included in waiver requests). Once the waiver application is complete, the designee will forward the application to CWSRFWaiver@epa.gov or DWSRFWaiver@epa.gov.

Evaluation by EPA

After receiving an application for waiver of the BABA requirements and ensuring sufficient information was provided, EPA will publish the request on its website for 15 days and receive public comment. EPA will then determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver.

In the event that EPA finds that adequate documentation and justification has been submitted, the Administrator may grant a waiver to the assistance recipient. EPA will notify the state designee whether a waiver request has been approved or not approved as soon as such a decision has been made. Granting such a waiver is a four-step process:

1. Research – After receiving an application for a waiver, EPA will perform market research to determine whether the iron, steel, manufactured goods, or construction materials are available domestically.
2. Posting – After research, if no domestic product has been identified, EPA is required to publish the application and all material submitted with the application on EPA's website for 15 days. During that period, the public will have the opportunity to review the request and provide informal comment to EPA. The website can be found at: <https://www.epa.gov/cwsrf/build-america-buy-america-baba-waivers-open-public-comment>.
3. Evaluation – After receiving an application for waiver of the BABA requirements, EPA will determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver to determine whether or not to grant the waiver.

3. Signature of waiver approval by the Administrator or another agency official with delegated authority – As soon as the waiver is signed and dated, EPA will notify the State SRF program and post the signed waiver on the Agency's website. The assistance recipient should keep a copy of the signed waiver in its project files.

(Note: Additional steps may be required in the future regarding the waiver process depending on additional guidance from OMB)

APPENDIX 1

Example Build America, Buy America (BABA) Act Construction Contract Language

ALL CONSTRUCTION CONTRACTS MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE BABA REQUIREMENTS. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN A PROJECT'S CONSTRUCTION CONTRACT. EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THIS CLAUSE WITH RESPECT TO STATE OR LOCAL LAW:

The Contractor acknowledges to and for the benefit of the _____ (“Owner”) and the _____ (the “Funding Authority”) that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as “Build America, Buy America,” that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States (“Build America, Buy America Requirements”) including iron and steel, manufactured products, and construction materials provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

APPENDIX 2

Example Build America, Buy America (BABA) Act Assistance Agreement Language

ALL FEDERAL FINANCIAL INFRASTRUCTURE ASSISTANCE AGREEMENTS MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE BABA REQUIREMENTS. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN AN ASSISTANCE AGREEMENT (E.G., SRF LOAN AGREEMENT). EPA MAKES NO CLAIMS REGARDING THE LEGAL SUFFICIENCY OF THIS CLAUSE WITH RESPECT TO STATE LAW:

Comply with all federal requirements applicable to the assistance received (including those imposed by the Infrastructure Investment and Jobs Act (“IIJA”), Public Law No. 117-58) which the Participant understands includes, but is not limited to, the following requirements: that all of the iron and steel, manufactured products, and construction materials used in the Project are to be produced in the United States (“Build America, Buy America Requirements”) unless (i) the Participant has requested and obtained a waiver from the cognizant Agency^[1] pertaining to the Project or the Project is otherwise covered by a general applicability waiver; or (ii) all of the contributing Agencies have otherwise advised the Participant in writing that the Build America, Buy America Requirements are not applicable to the Project.

Comply with all record keeping and reporting requirements under all applicable legal authorities, including any reports required by the funding authority (such as EPA and/or a state), such as performance indicators of program deliverables, information on costs and project progress. The Participant understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities and (ii) failure to comply with the applicable legal requirements and this Agreement may result in a default hereunder that results in a repayment of the assistance agreement in advance of the maturity of the Bonds, termination and/or repayment of grants, cooperative agreements, direct assistance or other types of financial assistance, and/or other remedial actions.

^[1] From OMB Guidance M-22-11: To avoid a need for duplicative waiver requests from entities that receive funding for one infrastructure project through multiple Federal agencies, the Federal agency contributing the greatest amount of Federal funds for the project should be considered the “Cognizant Agency for Made in America” and should take responsibility for coordinating with the other Federal awarding agencies. Such coordination will provide uniform waiver criteria and adjudication processes, minimize duplicative efforts among Federal agencies, and reduce burdens on recipients. The Cognizant Agency for Made in America shall be responsible for consulting with the other Federal awarding agencies, publicizing the proposed joint waiver, and submitting the proposed joint waiver for review to MIAO.

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Connecticut Drinking Water State Revolving Fund

Build America, Buy America (BABA) - De Minimis Waiver On-Going Tracking Form

The Bipartisan Infrastructure Law (BIL) (aka Infrastructure Investment and Jobs Act (IIJA)) (Public Law 117-58) included a new requirement for the use of domestic products in DWSRF-funded projects. Under the authority of Section 70914(b)(1), the EPA has issued a public interest waiver for BABA De Minimis components. The assistance recipient wishing to use this waiver should consult with their contractor(s) to maintain an itemized list of components covered under the De Minimis waiver.

THIS VERSION OF THE "BABA DE MINIMIS WAIVER FORM" IS TO BE USED TO TRACK ITEMS AS THE PROJECT PROGRESSES. THE FINAL REPORTED AMOUNT MUST BE ON THE "FINAL UTILIZATION AND CERTIFICATION FORM".

PWS Name: _____ PWSID: _____

Project Name: _____ Loan agrmnt #: _____

NOTE: This De Minimis waiver is only applicable to projects which are required to follow BABA. If the project is only required to follow American Iron & Steel (AIS), use that form. Must have sufficient documentation to support all costs included in this calculation.

The total amount used for BABA de minimis components cumulatively may comprise no more than a total of 5 percent of the total cost of the project.

Total Cost of Project: 5% Limit: Cap of \$1,000,000

* **Category** is only one of the following: "Iron & Steel"; "Manufactured Product"; OR "Construction Material"

Manufacturer & Component Description	Category *	Part/Model#	Quantity (if appl)	Cost per Unit (if applicable)	Component Total Cost	How is Cost Documented?

Use additional sheets as necessary

Running Total BABA De Minimis Cost of Components:

If approaching the 5% limit, contact DWS immediately

For final reporting, use the "Final Utilization and Certification" Form.

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Connecticut Drinking Water State Revolving Fund

Build America, Buy America (BABA) - De Minimis Waiver Final Utilization & Certification Form

The Bipartisan Infrastructure Law (BIL) (aka Infrastructure Investment and Jobs Act (IIJA)) (Public Law 117-58) included a new requirement for the use of domestic products in DWSRF-funded projects. Under the authority of Section 70914(b)(1), the EPA has issued a public interest waiver for BABA De Minimis components. The assistance recipient wishing to use this waiver should consult with their contractor(s) to maintain an itemized list of components covered under the De Minimis waiver. At the conclusion of the project, this form must be completed and retained in the assistance recipient's project files and a copy provided to the DPH-DWSRF unit. **It is strongly recommended that you maintain a list as the project progresses (see "on-Going Tracking Form").**

PWS Name: _____ PWSID: _____

Project Name: _____ Loan agrmnt #: _____

NOTE: This De Minimis waiver is only applicable to projects which are required to follow BABA. If the project is only required to follow American Iron & Steel (AIS), use that form. Must have sufficient documentation to support all costs included in this calculation.

The total amount used for BABA de minimis components cumulatively may comprise no more than a total of 5 percent of the total cost of the project.

Total Cost of Project: _____ 5% Limit: _____ Cap of \$1,000,000

* **Category** is only one of the following: "Iron & Steel"; "Manufactured Product"; OR "Construction Material"

Manufacturer & Component Description	Category *	Part/ Model#	Quantity (if appl)	Cost per Unit (if applicable)	Component Total Cost	How is Cost Documented?

Use additional sheets as necessary

Final Total BABA De Minimis Cost of Components: _____

Completed by:

If approaching the 5% limit, contact DWS immediately

Name: _____

Title: _____

Signature: _____

Date: _____

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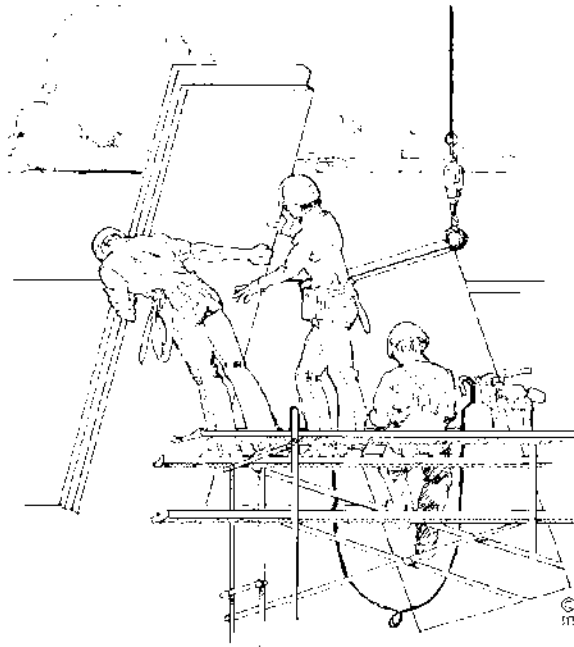
~NOTICE~

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) 263-6790.



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

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): _____

**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.

Dredging (Heavy)

- a. Paid Holidays: New Year’s Day, Martin Luther King, Jr.’s Birthday, Memorial Day, Good Friday, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day and Christmas Day.
- b. Vacation: Eight Percent (8%) of the straight time rate, multiplied by the total hours worked.

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.

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.

Information Bulletin

Occupational Classifications

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(d).

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. If unsure, the employer should seek guidelines for CTDOL.

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.

- **LABORER, CLEANING**

- The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

- **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 or 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 require 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 require equal composite workforce.

- **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.

- **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), decorative security fence (non-metal)).

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 hhg 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. (demolition 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, 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. 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. To include testing and air –balancing ancillary to installation and construction.

- **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**

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are required to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ****License required, drivers only, per Connecticut General Statutes.***

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) 263-6790.

[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.

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.												PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS										Connecticut Department of Labor Wage and Workplace Standards Division 200 Folly Brook Blvd. Wethersfield, CT 06109																			
CONTRACTOR NAME AND ADDRESS:												SUBCONTRACTOR NAME & ADDRESS						WORKER'S COMPENSATION INSURANCE CARRIER POLICY # EFFECTIVE DATE: EXPIRATION DATE:																							
PAYROLL NUMBER		Week-Ending Date		PROJECT NAME & ADDRESS																																					
PERSON/WORKER, ADDRESS and SECTION		APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION		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	LIST OTHER																						
				Trade License Type & Number - OSHA 10 Certification Number								Total O/T Hours	TOTAL FRINGE BENEFIT PLAN CASH			FICA	WITH- HOLDING	WITH- HOLDING																							
HOURS WORKED EACH DAY																																									
												\$ Base Rate	1. \$ 2. \$ 3. \$																												
												\$ Cash Fringe	4. \$ 5. \$ 6. \$																												
												\$ Base Rate	1. \$ 2. \$ 3. \$																												
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												\$ Cash Fringe	4. \$ 5. \$ 6. \$																												
12/9/2013 WWS-CP1												*IF REQUIRED												*SEE REVERSE SIDE												PAGE NUMBER ____OF					

***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 _____
- 4) Disability_____
- 2) Pension or retirement _____
- 5) Vacation, holiday_____
- 3) Life Insurance _____
- 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)

Weekly Payroll Certification For Public Works Projects (Continued)				PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS										Week-Ending Date: Contractor or Subcontractor Business Name:					
WEEKLY PAYROLL																			
PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION	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				FICA	FEDERAL	STATE	LIST OTHER		
			Trade License Type & Number - OSHA								Total	TOTAL FRINGE BENEFIT PLAN							
			10 Certification Number	HOURS WORKED EACH DAY						O/T Hours	CASH								
											\$ Base Rate	1. \$							
												2. \$							
												3. \$							
												4. \$							
												5. \$							
												6. \$							
										\$ Cash Fringe	1. \$								
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										\$ Base Rate	1. \$								
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											6. \$								

12/9/2013
WWS-CP2

*IF REQUIRED

NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1)

PAGE NUMBER ____ OF

[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.

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.										PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS										Connecticut Department of Labor Wage and Workplace Standards Division 200 Folly Brook Blvd. Wethersfield, CT 06109									
WEEKLY PAYROLL																													
CONTRACTOR NAME AND ADDRESS: Landon Corporation, 15 Connecticut Avenue, Northford, CT 06472										SUBCONTRACTOR NAME & ADDRESS XYZ Corporation 2 Main Street Yantic, CT 06389										WORKER'S COMPENSATION INSURANCE CARRIER Travelers Insurance Company POLICY # #BAC8888928 EFFECTIVE DATE: 1/1/09 EXPIRATION DATE: 12/31/09									
PAYROLL NUMBER 1		Week-Ending Date 9/26/09		PROJECT NAME & ADDRESS DOT 105-296, Route 82																									
PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE							Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	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					FICA	FEDERAL	STATE	LIST OTHER											
				20	21	22	23	24	25	26																			
Robert Craft 81 Maple Street Willimantic, CT 06226		M/C	Electrical Lineman E-1 1234567 Owner OSHA 123456		8	8	8	8	8		S-TIME 40 O-TIME	\$ 30.75 Base Rate \$ 8.82 Cash Fringe	1. \$ 5.80 2. \$ 3. \$ 2.01 4. \$ 5. \$ 6. \$	\$1,582.80				P-xxxx	\$1,582.80	#123 \$ xxx.xx									
Ronald Jones 212 Elm Street Norwich, CT 06360	65%	M/B	Electrical Apprentice OSHA 234567		8	8	8	8	8		S-TIME 40 O-TIME	\$ 19.99 Base Rate \$ 16.63 Cash Fringe	1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$	\$1,464.80	xx.xx	xxx.xx	xx.xx	G-xxx	\$1,464.80	#124 \$xxx.xx									
Franklin T. Smith 234 Washington Rd. New London, CT 06320 SECTION B		M/H	Project Manager			8					S-TIME 8 O-TIME	\$ Base Rate \$ Cash Fringe	1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$	\$1,500.00	xx.xx	xx.xx	xx.xx	M-xx.x		#125 xxx.xx									
											S-TIME O-TIME	\$ Base Rate \$ Cash Fringe	1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$																

7/13/2009
WWS-CP1

*IF REQUIRED

*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-CP1 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



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.

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.

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U.S. Department of Labor

Wage and Hour Division

Davis-Bacon and Related Acts Weekly Certified Payroll Form

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Unless otherwise noted, the information requested is specific to the named project below.

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.



Rev. January 2025
OMB No.: 1235-0008
Expires: 01/31/2028

☐ SUBMISSION OF FINAL DBRA CERTIFIED PAYROLL FORM

☐ PRIME CONTRACTOR

☐ SUBCONTRACTOR

PROJECT NAME				PROJECT NO. or CONTRACT NO.			CERTIFIED PAYROLL NO.		PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME																
PROJECT LOCATION				WAGE DETERMINATION NO.			WEEK ENDING DATE		PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS ADDRESS																
(1A)	(1B)	(1C)	(1D)	(1E)	(2)	(3)	(4)				(5)	(6A)	(6B)	(6C)	(7A)	(7B)	(8)			(9)					
WORKER ENTRY NO.	WORKER LAST NAME	WORKER FIRST NAME	WORKER MIDDLE INITIAL	WORKER IDENTIFYING NO.	(J) JOURNEYWORKER (RA) REGISTERED APPRENTICE	LABOR CLASSIFICATION	ST = STRAIGHT TIME OT = OVERTIME	(TOP) DAYS OF WORK WEEK (BOTTOM) DATES							TOTAL HOURS WORKED FOR WEEK	HOURLY WAGE RATE PAID FOR ST AND OT	TOTAL FRINGE BENEFIT CREDIT	PAYMENT IN LIEU OF FRINGE BENEFITS	GROSS AMT EARNED	GROSS AMT EARNED FOR ALL WORK	DEDUCTIONS FOR ALL WORK				NET PAY TO WORKER FOR ALL WORK
								HOURS WORKED EACH DAY													TAX WITH-HOLDINGS	FICA	OTHER (MUST SPECIFY, SEE INSTRUCTIONS)	TOTAL DEDUCTIONS	
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While use of Form WH-347 itself is optional, covered contractors and subcontractors performing work on Federal or federally assisted construction contracts are required by the DBRA regulations and the contract clauses to submit payroll information on a weekly basis. The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federal or federally financed construction contracts to, on a weekly basis, "furnish a statement on the wages paid each employee during the prior week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors and subcontractors to submit weekly certified payrolls to the appropriate Federal agency if the agency is a party to the contract (or, if the agency is not such a party, to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the Federal agency). Each certified payroll must be accompanied by a signed "Statement of Compliance" (e.g., page 2 of the WH-347 or another document with identical wording) indicating that the certified payrolls are accurate and complete, and that each laborer or mechanic has been paid not less than the required Davis-Bacon prevailing wage rate(s) (including any fringe benefits) for the work performed. DOL and contracting agencies receiving this information review the information to determine whether workers have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that it will take an average of 55 minutes to complete this collection, 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, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210 (over)

LABOR STANDARDS INTERVIEW

CONTRACT NUMBER			EMPLOYEE INFORMATION		
NAME OF PRIME CONTRACTOR			LAST NAME		FIRST NAME
			MI		
NAME OF EMPLOYER			STREET ADDRESS		
			CITY		
SUPERVISOR'S NAME			STATE	ZIP CODE	
LAST NAME		FIRST NAME	MI	WORK CLASSIFICATION	WAGE RATE

ACTION	CHECK BELOW	
	YES	NO
Do you work over 8 hours per day?	☐	☐
Do you work over 40 hours per week?	☐	☐
Are you paid at least time and a half for overtime hours?	☐	☐
Are you receiving any cash payments for fringe benefits required by the posted wage determination decision?	☐	☐
WHAT DEDUCTIONS OTHER THAN TAXES AND SOCIAL SECURITY ARE MADE FROM YOUR PAY?		

HOW MANY HOURS DID YOU WORK ON YOUR LAST WORK DAY BEFORE THIS INTERVIEW?	TOOLS YOU USE	
DATE OF LAST WORK DAY BEFORE INTERVIEW (YYMMDD)		
DATE YOU BEGAN WORK ON THIS PROJECT (YYMMDD)		

THE ABOVE IS CORRECT TO THE BEST OF MY KNOWLEDGE

EMPLOYEE'S SIGNATURE			DATE (YYMMDD)
INTERVIEWER	SIGNATURE	TYPED OR PRINTED NAME	DATE (YYMMDD)

INTERVIEWER'S COMMENTS

WORK EMPLOYEE WAS DOING WHEN INTERVIEWED	ACTION <i>(If explanation is needed, use comments section)</i>	YES	NO
	IS EMPLOYEE PROPERLY CLASSIFIED AND PAID?	☐	☐
	ARE WAGE RATES AND POSTERS DISPLAYED?	☐	☐

FOR USE BY PAYROLL CHECKER

IS ABOVE INFORMATION IN AGREEMENT WITH PAYROLL DATA?

☐ YES ☐ NO

COMMENTS

CHECKER			
LAST NAME	FIRST NAME	MI	JOB TITLE
SIGNATURE			DATE (YYMMDD)

PROJECT NAME			PROJECT NO. or CONTRACT NO.		PAYROLL NO.		PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME																																																																																																																																																																							
PROJECT LOCATION					WEEK ENDING DATE		CERTIFYING OFFICIAL'S NAME AND TITLE																																																																																																																																																																							
I paid or supervised the payment of the laborers or mechanics working on the above project during the stated time period. I certify the following:																																																																																																																																																																														
☐	The payroll information submitted with this statement is correct and complete for the above project during the above period, and the wage and fringe benefit rates paid to the workers, including credit taken for the reasonably anticipated costs of a bona fide fringe benefit plan, fund or program, are not less than the applicable wage and fringe benefits rates for the classification(s) of work actually performed, as specified in the wage determination(s) incorporated into the contract.																																																																																																																																																																													
☐	All regular payrolls and all other basic records that the contractor is required to maintain for this payroll period are complete and accurate and will be made available upon request from the agency or the Department of Labor.																																																																																																																																																																													
☐	The classifications reported for each laborer or mechanic are the classification(s) of work that each worker actually performed.																																																																																																																																																																													
☐	Any workers paid as apprentices during the above period are duly registered in a bona fide apprenticeship program registered with the Office of Apprenticeship, Employment and Training Administration, United States Department of Labor ("OA"), or a State Apprenticeship Agency ("SAA") recognized by Department of Labor. I have verified the registered apprenticeship program information provided below as accurate and applicable to any apprentices identified on page 1 of this form.																																																																																																																																																																													
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☐	Fringe benefits have been paid in cash and/or to bona fide fringe benefit plans, funds, or programs. Where the contractor is claiming an hourly credit for their contributions to or reasonably anticipated costs of a bona fide fringe benefit plan, fund, or program, provide plan information and the hourly credit claimed for each worker listed on the previous page of this form.																																																																																																																																																																													
<p align="center">HOURLY CREDIT FOR FRINGE BENEFITS</p> <p align="center"><i>If an amount is listed in (6B) on the first page of this certified payroll form, enter the hourly credit claimed under each plan name, type and number for each worker and check whether the plan is funded or unfunded.</i></p> <table border="1"> <thead> <tr> <th rowspan="4">NAME OF WORKER</th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th>FB NAME</th> <th></th> <th rowspan="4">TOTAL HOURLY CREDIT</th> </tr> <tr> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> <th>FB TYPE</th> <th></th> </tr> <tr> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> <th>PLAN NO.</th> <th></th> </tr> <tr> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> <th>☐ Funded ☐ Unfunded</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> <tr> <td></td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>Hourly Credit</td> <td>\$</td> <td>\$</td> </tr> </tbody> </table>													NAME OF WORKER	FB NAME		FB NAME		FB NAME		FB NAME		FB NAME		FB NAME		TOTAL HOURLY CREDIT	FB TYPE		FB TYPE		FB TYPE		FB TYPE		FB TYPE		FB TYPE		PLAN NO.		PLAN NO.		PLAN NO.		PLAN NO.		PLAN NO.		PLAN NO.		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded		☐ Funded ☐ Unfunded			Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$		Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	Hourly Credit	\$	\$
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☐	All workers on the project have been paid the full weekly wages earned, and no rebates or deductions have been or will be made either directly or indirectly, other than permissible deductions as defined in 29 CFR part 3.																																																																																																																																																																													
ADDITIONAL REMARKS																																																																																																																																																																														
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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 3729 OF TITLE 31 OF THE UNITED STATES CODE), AS WELL AS DEBARMENT FROM FUTURE FEDERAL AND FEDERALLY-ASSISTED CONTRACTS. INFORMATION REPORTED IN CERTIFIED PAYROLLS MAY BE SUBJECT TO DISCLOSURE IN RESPONSE TO A FREEDOM OF INFORMATION ACT REQUEST.																																																																																																																																																																														

CT Wage Rates

Project: Lead Service Line Replacement Program

Minimum Rates and Classifications for
Heavy/Highway Construction

ID#: 26-8436

Connecticut Department of Labor
Wage and Workplace Standards Division

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: SFY 22-39

Project Town: Putnam

State#:

FAP#:

Project: Lead Service Line Replacement Program

CLASSIFICATION	Hourly Rate	Benefits
1) Boilermaker	50.21	30.01
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	46.09	36.29
2) Carpenters, Piledrivermen	44.48	29.74
2a) Diver Tenders	44.48	29.74
2b) Divers Effluent	67.52	29.74
3) Divers	52.94	29.74
03a) Millwrights	45.14	30.24
03b) Carpenter-Welder	44.98	29.74
03c) Carpenter: Working with creosote lumber or acid	45.48	29.74

As of: July 30, 2026

4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	61.85	27.65
4a) Painters: Brush and Roller	41.17	27.65
4b) Painters: Spray	44.17	27.65
4bc) Painters: Spray Helper	42.17	27.65
4c) Painters: Steel Only	43.17	27.65
4d) Painters: Blast	46.17	27.65
4de) Painter: Blast Helper	42.17	27.65
4e) Painters: Tanks, Tower and Swingstage etc.	43.17	27.65
4f) Elevated Tanks (60 feet and above)	50.17	27.65
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)	50.25	37.47+3% of gross wage
6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	45.25	46.62 + 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)	52.08	36.80
----LABORERS-----		
8) Group 1: General Laborers and concrete specialist	37.0	30.47

As of: July 30, 2026

8) Group 1a: Acetylene Burners (Hours worked with a torch)	38.0	30.47
9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	37.25	30.47
10) Group 3: Pipelayers	37.5	30.47
11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	37.5	30.47
12) Group 5: Toxic waste removal (non-mechanical systems)	39.0	30.47
13) Group 6: Blasters	38.75	30.47
Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	40.0	30.47
Group 8: Traffic control signalmen	22.2	30.47
Group 9: Hydraulic Drills	37.75	30.47
Group 10: Toxic Waste Removers A or B With PPE	40.0	30.47
----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	39.23	30.47 + a
13b) Brakemen, Trackmen, Miners' Helpers and all other men	38.26	30.47 + a

As of: July 30, 2026

----CLEANING, CONCRETE AND CAULKING TUNNEL----

14) Concrete Workers, Form Movers, and Strippers	38.26	30.47 + a
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15) Form Erectors	38.59	30.47 + a
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----ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:----

16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers, Miners Helpers	38.26	30.47 + a
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17) Laborers Topside, Cage Tenders, Bellman	38.15	30.47 + a
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18) Miners	39.23	30.47 + a
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----TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: ---
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18a) Blaster	45.72	30.47 + a
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19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	45.52	30.47 + a
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20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	43.54	30.47 + a
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21) Mucking Machine Operator, Grout Boss, Track Boss	46.31	30.47 + a
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----TRUCK DRIVERS----(*see note below)

Block Truck	39.98	33.00 + a
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2 Axle	38.66	33.00 + a
Helpers	36.16	33.00 + a
Three Axle Trucks; Two Axle Mixer	38.77	33.00 + a
Three Axle Mixer	38.83	33.00 + a
Four Axle	38.89	33.00 + a
Four Axle Mixer	40.69	33.00 + a
5 Axle	38.89	33.00 + a
5 Axle Mixer	40.69	33.00 + a
Heavy Duty Trailer (40 tons and over)	41.16	33.00 + a
Heavy Duty Trailer (up to 40 tons)	39.89	33.00 + a
Snorkle Truck	39.04	33.00 + a
Swivel Dump and Tack Truck	38.89	33.00 + a
Euclids and Semi Trailer	38.94	33.00 + a

----POWER EQUIPMENT OPERATORS----

As of: July 30, 2026

Group 1: Crane Handling or Erecting Structural Steel or Stone, Hoisting Engineer (2 drums or over), Caisson Drilled Shaft over 14". (Trade License Required)	60.66	30.95 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and over.	55.6	30.95 + a
Group 2: Cranes (100 ton rate capacity and over). (Trade License Required)	60.24	30.95 + a
Group 2a: Cranes (under 100 ton rated capacity), Magni Type-360 Rotating Forklift.	59.2	30.95 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer), HF-1 Forklift, Drills with self contained power units, Micropile up to 14 inches helical pile.	55.17	30.95 + a
Group 3: Excavator; 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)	54.13	30.95 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper), Goldhofer.	53.61	30.95 + a
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" mandrel)	52.78	30.95 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller, Geothermal Drill.	52.78	30.95 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	52.35	30.95 + a
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)	51.89	30.95 + a

As of: July 30, 2026

Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine, Rigger Foreman.	51.34	30.95 + a
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), Vacuum Excavation Truck and Hydrovac Excavation Truck (27 HG pressure or greater).	50.74	30.95 + a
Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	47.91	30.95 + a
Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	47.91	30.95 + a
Group 12: Wellpoint Operator.	47.82	30.95 + a
Group 13: Compressor Battery Operator.	47.04	30.95 + a
Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	45.45	30.95 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	44.89	30.95 + a
Group 16: Maintenance Engineer and Articulating End Dump.	43.99	30.95 + a
Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator., Portable Grout Plant Operator, Portable Water Filtration Plant Operator.	49.95	30.95 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license), Rigger, Signalman.	46.6	30.95 + a
Surveyor: Chief of Party	50.21	30.95 + a

As of: July 30, 2026

Surveyor: Assistant Chief of Party	46.3	30.95 + a
Surveyor: Instrument Man	44.55	30.95 + a
Surveyor: Rodman or Chairman	38.34	30.95 + a
**NOTE: SEE BELOW		
----LINE CONSTRUCTION----(Railroad Construction and Maintenance)----		
20) Lineman, Cable Splicer, Technician	59.91	34.00
21) Heavy Equipment Operator	53.92	31.88
22) Equipment Operator, Tractor Trailer Driver, Material Men	50.92	30.84
23) Driver Groundmen	44.93	28.47
23a) Groundman Experienced	32.95	13.99
----OUTSIDE LINE CONSTRUCTION----		
24) Driver Groundmen	43.78	28.42
25) Groundmen	32.1	13.95
26) Heavy Equipment Operators	52.53	31.83

As of: July 30, 2026

27) Linemen, Cable Splicers, Dynamite Men	58.37	33.94
28) Material Men, Tractor Trailer Drivers, Equipment Operators	49.61	30.79
29) Technician	56.12	32.85

----COMMUNICATION----

Sales & Service Technician: To include but not limited to: Installation, Repair, Splicing and Maintenance	52.07	20.62
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----DREDGING----

Class A1: Mechanical Dredge Operator	48.48	17.32+a+b
Class B1: Maintenance Engineer	41.93	16.87+a+b
Class C1: Mate/Welder	38.38	16.62+a+b
Class D: Deckhand	30.86	16.09+a+b

Welders: Rate for craft to which welding is incidental.

Surveyors: Hazardous material removal: \$3.00 per hour premium.

*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.

Truck Drivers: Trainers Premium: \$3.00 over wage rate.

Truck Drivers: Night Premium - Mixer Drivers: \$2.00 over wage rate.

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
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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. 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.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

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.

Project: Lead Service Line Replacement Program

Minimum Rates and Classifications for
Heavy/Highway Construction

ID#: 26-8437

Connecticut Department of Labor
Wage and Workplace Standards Division

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: SFY 22-39

Project Town: Woodstock

State#:

FAP#:

Project: Lead Service Line Replacement Program

CLASSIFICATION	Hourly Rate	Benefits
1) Boilermaker	50.21	30.01
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	46.09	36.29
2) Carpenters, Piledrivermen	44.48	29.74
2a) Diver Tenders	44.48	29.74
2b) Divers Effluent	67.52	29.74
3) Divers	52.94	29.74
03a) Millwrights	45.14	30.24
03b) Carpenter-Welder	44.98	29.74
03c) Carpenter: Working with creosote lumber or acid	45.48	29.74

As of: July 30, 2026

4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	61.85	27.65
4a) Painters: Brush and Roller	41.17	27.65
4b) Painters: Spray	44.17	27.65
4bc) Painters: Spray Helper	42.17	27.65
4c) Painters: Steel Only	43.17	27.65
4d) Painters: Blast	46.17	27.65
4de) Painter: Blast Helper	42.17	27.65
4e) Painters: Tanks, Tower and Swingstage etc.	43.17	27.65
4f) Elevated Tanks (60 feet and above)	50.17	27.65
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)	50.25	37.47+3% of gross wage
6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	45.25	46.62 + 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)	52.08	36.80
----LABORERS-----		
8) Group 1: General Laborers and concrete specialist	37.0	30.47

As of: July 30, 2026

8) Group 1a: Acetylene Burners (Hours worked with a torch)	38.0	30.47
9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	37.25	30.47
10) Group 3: Pipelayers	37.5	30.47
11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	37.5	30.47
12) Group 5: Toxic waste removal (non-mechanical systems)	39.0	30.47
13) Group 6: Blasters	38.75	30.47
Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	40.0	30.47
Group 8: Traffic control signalmen	22.2	30.47
Group 9: Hydraulic Drills	37.75	30.47
Group 10: Toxic Waste Removers A or B With PPE	40.0	30.47
----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	39.23	30.47 + a
13b) Brakemen, Trackmen, Miners' Helpers and all other men	38.26	30.47 + a

As of: July 30, 2026

----CLEANING, CONCRETE AND CAULKING TUNNEL----

14) Concrete Workers, Form Movers, and Strippers	38.26	30.47 + a
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15) Form Erectors	38.59	30.47 + a
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----ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:----

16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers, Miners Helpers	38.26	30.47 + a
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17) Laborers Topside, Cage Tenders, Bellman	38.15	30.47 + a
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18) Miners	39.23	30.47 + a
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----TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: ---
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18a) Blaster	45.72	30.47 + a
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19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	45.52	30.47 + a
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20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	43.54	30.47 + a
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21) Mucking Machine Operator, Grout Boss, Track Boss	46.31	30.47 + a
--	-------	-----------

----TRUCK DRIVERS----(*see note below)

Block Truck	39.98	33.00 + a
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2 Axle	38.66	33.00 + a
Helpers	36.16	33.00 + a
Three Axle Trucks; Two Axle Mixer	38.77	33.00 + a
Three Axle Mixer	38.83	33.00 + a
Four Axle	38.89	33.00 + a
Four Axle Mixer	40.69	33.00 + a
5 Axle	38.89	33.00 + a
5 Axle Mixer	40.69	33.00 + a
Heavy Duty Trailer (40 tons and over)	41.16	33.00 + a
Heavy Duty Trailer (up to 40 tons)	39.89	33.00 + a
Snorkle Truck	39.04	33.00 + a
Swivel Dump and Tack Truck	38.89	33.00 + a
Euclids and Semi Trailer	38.94	33.00 + a

----POWER EQUIPMENT OPERATORS----

As of: July 30, 2026

Group 1: Crane Handling or Erecting Structural Steel or Stone, Hoisting Engineer (2 drums or over), Caisson Drilled Shaft over 14". (Trade License Required)	60.66	30.95 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and over.	55.6	30.95 + a
Group 2: Cranes (100 ton rate capacity and over). (Trade License Required)	60.24	30.95 + a
Group 2a: Cranes (under 100 ton rated capacity), Magni Type-360 Rotating Forklift.	59.2	30.95 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer), HF-1 Forklift, Drills with self contained power units, Micropile up to 14 inches helical pile.	55.17	30.95 + a
Group 3: Excavator; 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)	54.13	30.95 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper), Goldhofer.	53.61	30.95 + a
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" mandrel)	52.78	30.95 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller, Geothermal Drill.	52.78	30.95 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	52.35	30.95 + a
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)	51.89	30.95 + a

As of: July 30, 2026

Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine, Rigger Foreman.	51.34	30.95 + a
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), Vacuum Excavation Truck and Hydrovac Excavation Truck (27 HG pressure or greater).	50.74	30.95 + a
Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	47.91	30.95 + a
Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	47.91	30.95 + a
Group 12: Wellpoint Operator.	47.82	30.95 + a
Group 13: Compressor Battery Operator.	47.04	30.95 + a
Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	45.45	30.95 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	44.89	30.95 + a
Group 16: Maintenance Engineer and Articulating End Dump.	43.99	30.95 + a
Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator., Portable Grout Plant Operator, Portable Water Filtration Plant Operator.	49.95	30.95 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license), Rigger, Signalman.	46.6	30.95 + a
Surveyor: Chief of Party	50.21	30.95 + a

As of: July 30, 2026

Surveyor: Assistant Chief of Party	46.3	30.95 + a
Surveyor: Instrument Man	44.55	30.95 + a
Surveyor: Rodman or Chairman	38.34	30.95 + a

****NOTE: SEE BELOW**

----LINE CONSTRUCTION----(Railroad Construction and Maintenance)----

20) Lineman, Cable Splicer, Technician	59.91	34.00
21) Heavy Equipment Operator	53.92	31.88
22) Equipment Operator, Tractor Trailer Driver, Material Men	50.92	30.84
23) Driver Groundmen	44.93	28.47
23a) Groundman Experienced	32.95	13.99

----OUTSIDE LINE CONSTRUCTION----

24) Driver Groundmen	43.78	28.42
25) Groundmen	32.1	13.95
26) Heavy Equipment Operators	52.53	31.83

As of: July 30, 2026

27) Linemen, Cable Splicers, Dynamite Men	58.37	33.94
28) Material Men, Tractor Trailer Drivers, Equipment Operators	49.61	30.79
29) Technician	56.12	32.85

----COMMUNICATION----

Sales & Service Technician: To include but not limited to: Installation, Repair, Splicing and Maintenance	52.07	20.62
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----DREDGING----

Class A1: Mechanical Dredge Operator	48.48	17.32+a+b
Class B1: Maintenance Engineer	41.93	16.87+a+b
Class C1: Mate/Welder	38.38	16.62+a+b
Class D: Deckhand	30.86	16.09+a+b

Welders: Rate for craft to which welding is incidental.

Surveyors: Hazardous material removal: \$3.00 per hour premium.

*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.

Truck Drivers: Trainers Premium: \$3.00 over wage rate.

Truck Drivers: Night Premium - Mixer Drivers: \$2.00 over wage rate.

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
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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. 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.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

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.

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Prevailing Wage Rates System

Annual Adjusted July 1st Rates

Heavy Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Fairfield	Bethel	1) Boilermaker	\$48.21	30.01
Fairfield	Bethel	1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	\$43.14	34.74
Fairfield	Bethel	2) Carpenters, Piledrivermen	\$42.03	29.19
Fairfield	Bethel	2a) Diver Tenders	\$42.03	29.19
Fairfield	Bethel	2b) Divers Effluent	\$67.52	29.19
Fairfield	Bethel	3) Divers	\$50.49	29.19
Fairfield	Bethel	03a) Millwrights	\$43.25	29.13
Fairfield	Bethel	03b) Carpenter-Welder	\$42.53	29.19
Fairfield	Bethel	03c) Carpenter: Working with creosote lumber or acid	\$43.03	29.19
Fairfield	Bethel	4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	\$59.70	26.65
Fairfield	Bethel	4a) Painters: Brush and Roller	\$39.57	26.50
Fairfield	Bethel	4b) Painters: Spray	\$42.57	26.50
Fairfield	Bethel	4bc) Painters: Spray Helper	\$40.57	26.50
Fairfield	Bethel	4c) Painters: Steel Only	\$41.57	26.50
Fairfield	Bethel	4d) Painters: Blast	\$44.57	26.50
Fairfield	Bethel	4de) Painter: Blast Helper	\$40.57	26.50
Fairfield	Bethel	4e) Painters: Tanks, Tower and Swingstage etc.	\$41.57	26.50
Fairfield	Bethel	4f) Elevated Tanks (60 feet and above)	\$48.57	26.50
Fairfield	Bethel	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)	\$47.40	35.32+3% of gross wage
Fairfield	Bethel	6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	\$45.25	43.62 + a
Fairfield	Bethel	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)	\$50.58	36.30
Fairfield	Bethel	----LABORERS---- -		
Fairfield	Bethel	8) Group 1: General Laborers and concrete specialist	\$35.70	28.85

As of: July 1, 2025

Heavy Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Windham	Pomfret	Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator., Portable Grout Plant Operator, Portable Water Filtration Plant Operator.	\$47.91	29.80 + a
Windham	Pomfret	Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	\$44.70	29.80 + a
Windham	Pomfret	Surveyor: Chief of Party	\$48.16	29.80 + a
Windham	Pomfret	Surveyor: Assistant Chief of Party	\$44.41	29.80 + a
Windham	Pomfret	Surveyor: Instrument Man	\$42.73	29.80 + a
Windham	Pomfret	Surveyor: Rodman or Chairman	\$36.78	29.80 + a
Windham	Pomfret	**NOTE: SEE BELOW		
Windham	Pomfret	----LINE CONSTRUCTION----(Railroad Construction and Maintenance)---		
Windham	Pomfret	20) Lineman, Cable Splicer, Technician	\$57.60	32.85
Windham	Pomfret	21) Heavy Equipment Operator	\$51.84	29.95
Windham	Pomfret	22) Equipment Operator, Tractor Trailer Driver, Material Men	\$48.96	29.01
Windham	Pomfret	23) Driver Groundmen	\$43.20	26.84
Windham	Pomfret	23a) Groundman Experienced	\$31.68	13.91
Windham	Pomfret	----OUTSIDE LINE CONSTRUCTION----		
Windham	Pomfret	24) Driver Groundmen	\$42.09	26.84
Windham	Pomfret	25) Groundmen	\$30.87	13.91
Windham	Pomfret	26) Heavy Equipment Operators	\$50.51	29.95
Windham	Pomfret	27) Linemen, Cable Splicers, Dynamite Men	\$56.12	32.85
Windham	Pomfret	28) Material Men, Tractor Trailer Drivers, Equipment Operators	\$47.70	29.01
Windham	Pomfret	29) Technician	\$56.12	32.85
Windham	Pomfret	----COMMUNICATION----		
Windham	Pomfret	Sales & Service Technician: To include but not limited to: Installation, Repair, Splicing and Maintenance	\$48.84	18.07
Windham	Pomfret	----DREDGING----		
Windham	Pomfret	Class A1: Mechanical Dredge Operator	\$45.26	17.22+a+b
Windham	Pomfret	Class B1: Maintenance Engineer	\$39.14	16.78+a+b
Windham	Pomfret	Class C1: Mate/Welder	\$35.83	16.54+a+b
Windham	Pomfret	Class D: Deckhand	\$28.81	16.03+a+b
Windham	Putnam	1) Boilermaker	\$48.21	30.01

As of: July 1, 2025

Heavy Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Windham	Putnam	1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	\$43.14	34.74
Windham	Putnam	2) Carpenters, Piledrivermen	\$42.03	29.19
Windham	Putnam	2a) Diver Tenders	\$42.03	29.19
Windham	Putnam	2b) Divers Effluent	\$67.52	29.19
Windham	Putnam	3) Divers	\$50.49	29.19
Windham	Putnam	03a) Millwrights	\$43.25	29.13
Windham	Putnam	03b) Carpenter-Welder	\$42.53	29.19
Windham	Putnam	03c) Carpenter: Working with creosote lumber or acid	\$43.03	29.19
Windham	Putnam	4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	\$59.70	26.65
Windham	Putnam	4a) Painters: Brush and Roller	\$39.57	26.50
Windham	Putnam	4b) Painters: Spray	\$42.57	26.50
Windham	Putnam	4bc) Painters: Spray Helper	\$40.57	26.50
Windham	Putnam	4c) Painters: Steel Only	\$41.57	26.50
Windham	Putnam	4d) Painters: Blast	\$44.57	26.50
Windham	Putnam	4de) Painter: Blast Helper	\$40.57	26.50
Windham	Putnam	4e) Painters: Tanks, Tower and Swingstage etc.	\$41.57	26.50
Windham	Putnam	4f) Elevated Tanks (60 feet and above)	\$48.57	26.50
Windham	Putnam	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)	\$48.25	35.22+3% of gross wage
Windham	Putnam	6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	\$45.25	43.62 + a
Windham	Putnam	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)	\$50.58	36.30
Windham	Putnam	----LABORERS---- -		
Windham	Putnam	8) Group 1: General Laborers and concrete specialist	\$35.70	28.85
Windham	Putnam	8) Group 1a: Acetylene Burners (Hours worked with a torch)	\$36.70	28.85
Windham	Putnam	9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	\$35.95	28.85
Windham	Putnam	10) Group 3: Pipelayers	\$36.20	28.85
Windham	Putnam	11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	\$36.20	28.85
Windham	Putnam	12) Group 5: Toxic waste removal (non-mechanical systems)	\$37.70	28.85

As of: July 1, 2025

Heavy Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Windham	Putnam	13) Group 6: Blasters	\$37.45	28.85
Windham	Putnam	Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	\$38.70	28.85
Windham	Putnam	Group 8: Traffic control signalmen	\$21.42	28.85
Windham	Putnam	Group 9: Hydraulic Drills	\$36.45	28.85
Windham	Putnam	Group 10: Toxic Waste Removers A or B With PPE	\$38.70	28.85
Windham	Putnam	----LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and Liner Plate Tunnels in Free Air.----		
Windham	Putnam	13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	\$37.93	28.85 + a
Windham	Putnam	13b) Brakemen, Trackmen, Miners' Helpers and all other men	\$36.96	28.85 + a
Windham	Putnam	----CLEANING, CONCRETE AND CAULKING TUNNEL----		
Windham	Putnam	14) Concrete Workers, Form Movers, and Strippers	\$36.96	28.85 + a
Windham	Putnam	15) Form Erectors	\$37.29	28.85 + a
Windham	Putnam	----ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:----		
Windham	Putnam	16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers, Miners Helpers	\$36.96	28.85 + a
Windham	Putnam	17) Laborers Topside, Cage Tenders, Bellman	\$36.85	28.85 + a
Windham	Putnam	18) Miners	\$37.93	28.85 + a
Windham	Putnam	----TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: ----		
Windham	Putnam	18a) Blaster	\$44.42	28.85 + a
Windham	Putnam	19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	\$44.22	28.85 + a
Windham	Putnam	20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	\$42.24	28.85 + a
Windham	Putnam	21) Mucking Machine Operator, Grout Boss, Track Boss	\$45.01	28.85 + a
Windham	Putnam	----TRUCK DRIVERS----(*see note below)		
Windham	Putnam	Block Truck	\$37.48	32.68 + a
Windham	Putnam	2 Axle	\$36.16	32.68 + a
Windham	Putnam	Helpers	\$34.66	32.68 + a
Windham	Putnam	Three Axle Trucks; Two Axle Mixer	\$36.27	32.68 + a
Windham	Putnam	Three Axle Mixer	\$36.33	32.68 + a
Windham	Putnam	Four Axle Trucks	\$36.39	32.68 + a
Windham	Putnam	Four Axle Mixer	\$37.19	32.68 + a

As of: July 1, 2025

Heavy Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Windham	Putnam	5 Axle	\$36.39	32.68 + a
Windham	Putnam	5 Axle Mixer	\$37.19	32.68 + a
Windham	Putnam	Heavy Duty Trailer (40 tons and over)	\$38.66	32.68 + a
Windham	Putnam	Heavy Duty Trailer (up to 40 tons)	\$37.39	32.68 + a
Windham	Putnam	Snorkle Truck	\$36.54	32.68 + a
Windham	Putnam	Swivel Dump and Tack Truck	\$36.39	32.68 + a
Windham	Putnam	Euclids and Semi Trailer	\$36.44	32.68 + a
Windham	Putnam	----POWER EQUIPMENT OPERATORS----		
Windham	Putnam	Group 1: Crane Handling or Erecting Structural Steel or Stone, Hoisting Engineer (2 drums or over). (Trade License Required)	\$58.19	29.80 + a
Windham	Putnam	Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and over.	\$53.33	29.80 + a
Windham	Putnam	Group 2: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	\$57.78	29.80 + a
Windham	Putnam	Group 2a: Cranes (under 100 ton rated capacity).	\$56.79	29.80 + a
Windham	Putnam	Group 2b: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer).	\$52.92	29.80 + a
Windham	Putnam	Group 3: Excavator; 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)	\$51.92	29.80 + a
Windham	Putnam	Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper).	\$51.42	29.80 + a
Windham	Putnam	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" mandrel)	\$50.63	29.80 + a
Windham	Putnam	Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	\$50.63	29.80 + a
Windham	Putnam	Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	\$50.22	29.80 + a
Windham	Putnam	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)	\$49.77	29.80 + a
Windham	Putnam	Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	\$49.25	29.80 + a
Windham	Putnam	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), Vacuum Excavation Truck and Hydrovac Excavation Truck (27 HG pressure or greater).	\$48.67	29.80 + a
Windham	Putnam	Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	\$45.96	29.80 + a
Windham	Putnam	Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	\$45.96	29.80 + a
Windham	Putnam	Group 12: Wellpoint Operator.	\$45.87	29.80 + a

As of: July 1, 2025

Heavy Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Windham	Putnam	Group 13: Compressor Battery Operator.	\$45.12	29.80 + a
Windham	Putnam	Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	\$43.60	29.80 + a
Windham	Putnam	Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	\$43.06	29.80 + a
Windham	Putnam	Group 16: Maintenance Engineer.	\$42.20	29.80 + a
Windham	Putnam	Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator., Portable Grout Plant Operator, Portable Water Filtration Plant Operator.	\$47.91	29.80 + a
Windham	Putnam	Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	\$44.70	29.80 + a
Windham	Putnam	Surveyor: Chief of Party	\$48.16	29.80 + a
Windham	Putnam	Surveyor: Assistant Chief of Party	\$44.41	29.80 + a
Windham	Putnam	Surveyor: Instrument Man	\$42.73	29.80 + a
Windham	Putnam	Surveyor: Rodman or Chairman	\$36.78	29.80 + a
Windham	Putnam	**NOTE: SEE BELOW		
Windham	Putnam	----LINE CONSTRUCTION----(Railroad Construction and Maintenance)---		
Windham	Putnam	20) Lineman, Cable Splicer, Technician	\$57.60	32.85
Windham	Putnam	21) Heavy Equipment Operator	\$51.84	29.95
Windham	Putnam	22) Equipment Operator, Tractor Trailer Driver, Material Men	\$48.96	29.01
Windham	Putnam	23) Driver Groundmen	\$43.20	26.84
Windham	Putnam	23a) Groundman Experienced	\$31.68	13.91
Windham	Putnam	----OUTSIDE LINE CONSTRUCTION----		
Windham	Putnam	24) Driver Groundmen	\$42.09	26.84
Windham	Putnam	25) Groundmen	\$30.87	13.91
Windham	Putnam	26) Heavy Equipment Operators	\$50.51	29.95
Windham	Putnam	27) Linemen, Cable Splicers, Dynamite Men	\$56.12	32.85
Windham	Putnam	28) Material Men, Tractor Trailer Drivers, Equipment Operators	\$47.70	29.01
Windham	Putnam	29) Technician	\$56.12	32.85
Windham	Putnam	----COMMUNICATION----		
Windham	Putnam	Sales & Service Technician: To include but not limited to: Installation, Repair, Splicing and Maintenance	\$48.84	18.07
Windham	Putnam	----DREDGING----		
Windham	Putnam	Class A1: Mechanical Dredge Operator	\$45.26	17.22+a+b

As of: July 1, 2025

Heavy Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Windham	Putnam	Class B1: Maintenance Engineer	\$39.14	16.78+a+b
Windham	Putnam	Class C1: Mate/Welder	\$35.83	16.54+a+b
Windham	Putnam	Class D: Deckhand	\$28.81	16.03+a+b
Windham	Scotland	1) Boilermaker	\$48.21	30.01
Windham	Scotland	1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	\$43.14	34.74
Windham	Scotland	2) Carpenters, Piledrivermen	\$42.03	29.19
Windham	Scotland	2a) Diver Tenders	\$42.03	29.19
Windham	Scotland	2b) Divers Effluent	\$67.52	29.19
Windham	Scotland	3) Divers	\$50.49	29.19
Windham	Scotland	03a) Millwrights	\$43.25	29.13
Windham	Scotland	03b) Carpenter-Welder	\$42.53	29.19
Windham	Scotland	03c) Carpenter: Working with creosote lumber or acid	\$43.03	29.19
Windham	Scotland	4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	\$59.70	26.65
Windham	Scotland	4a) Painters: Brush and Roller	\$39.57	26.50
Windham	Scotland	4b) Painters: Spray	\$42.57	26.50
Windham	Scotland	4bc) Painters: Spray Helper	\$40.57	26.50
Windham	Scotland	4c) Painters: Steel Only	\$41.57	26.50
Windham	Scotland	4d) Painters: Blast	\$44.57	26.50
Windham	Scotland	4de) Painter: Blast Helper	\$40.57	26.50
Windham	Scotland	4e) Painters: Tanks, Tower and Swingstage etc.	\$41.57	26.50
Windham	Scotland	4f) Elevated Tanks (60 feet and above)	\$48.57	26.50
Windham	Scotland	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)	\$48.25	35.22+3% of gross wage
Windham	Scotland	6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	\$45.25	43.62 + a
Windham	Scotland	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)	\$50.58	36.30
Windham	Scotland	----LABORERS---- -		
Windham	Scotland	8) Group 1: General Laborers and concrete specialist	\$35.70	28.85
Windham	Scotland	8) Group 1a: Acetylene Burners (Hours worked with a torch)	\$36.70	28.85

As of: July 1, 2025



Prevailing Wage Rates System

Annual Adjusted July 1st Rates

Residential Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Fairfield	Bethel	Asbestos Worker/Heat and Frost Insulator	\$48.81	34.05
Fairfield	Bethel	Boilermakers	\$36.97	17.52
Fairfield	Bethel	Bricklayers, Cement Masons, PCC, Plasterers, Stone Masons	\$42.03	17.50
Fairfield	Bethel	Roofers: Slate & Tile	\$44.50	24.74 + a
Fairfield	Bethel	Roofers: Cole Tar Pitch	\$46.00	24.74 + a
Fairfield	Bethel	Sprinkler Fitters (Fire Sprinklers) (Trade License required: F-1,2,3,4)	\$53.76	33.44 + a
Fairfield	Bethel	Tile and Stone Finisher	\$33.00	27.40
Fairfield	Bethel	Tile Setter	\$40.00	32.72
Fairfield	Bethel	Elevator Mechanics (Trade License required: R-1,2,5,6)	\$66.72	38.435+a+b
Fairfield	Bethel	Power Equipment Operator: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer)	\$52.92	29.80 + a
Fairfield	Bethel	Power Equipment Operator: Excavator; 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)	\$51.92	29.80 + a
Fairfield	Bethel	Power Equipment Operator: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper).	\$51.42	29.80 + a
Fairfield	Bethel	Power Equipment Operator: 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" mandrel), Side Boom; Combination Hoe and Loader; Directional Driller.	\$50.63	29.80 + a
Fairfield	Bethel	Power Equipment Operator: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under Mandrel).	\$49.77	29.80 + a
Fairfield	Bethel	Power Equipment Operator: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	\$50.22	29.80 + a
Fairfield	Bethel	Power Equipment Operator: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and over.	\$53.33	29.80 + a
Fairfield	Bethel	Power Equipment Operator: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	\$49.25	29.80 + a
Fairfield	Bethel	Power Equipment Operator: Crane Handling or Erecting Structural Steel or Stone, Hoisting Engineer (2 drums or over). (Trade License Required)	\$58.19	29.80 + a
Fairfield	Bethel	Power Equipment Operator: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	\$45.96	29.80 + a
Fairfield	Bethel	Power Equipment Operator: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	\$57.78	29.80 + a

As of: July 1, 2025

Residential Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Windham	Pomfret	Laborers: General Laborers	\$25.24	15.86
Windham	Pomfret	Plumber/Pipefitter (Including HVAC Pipe Installation) (CT Occupational Trade License Required)	\$50.98	35.85
Windham	Putnam	Asbestos Worker/Heat and Frost Insulator	\$48.81	34.05
Windham	Putnam	Boilermakers	\$36.97	17.52
Windham	Putnam	Carpenter	\$26.55	12.82
Windham	Putnam	Bricklayers, Cement Masons, PCC, Plasterers, Stone Masons	\$42.03	17.50
Windham	Putnam	Roofers: Composition (asphalt shingles)	\$31.10	14.46
Windham	Putnam	Sprinkler Fitters (Fire Sprinklers) (Trade License required: F-1,2,3,4)	\$53.76	33.44 + a
Windham	Putnam	Tile and Stone Finisher	\$33.00	27.40
Windham	Putnam	Tile Setter	\$40.00	32.72
Windham	Putnam	Elevator Mechanics (Trade License required: R-1,2,5,6)	\$66.72	38.435+a+b
Windham	Putnam	Power Equipment Operator: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer)	\$52.92	29.80 + a
Windham	Putnam	Power Equipment Operator: Excavator; 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)	\$51.92	29.80 + a
Windham	Putnam	Power Equipment Operator: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper).	\$51.42	29.80 + a
Windham	Putnam	Power Equipment Operator: 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" mandrel), Side Boom; Combination Hoe and Loader; Directional Driller.	\$50.63	29.80 + a
Windham	Putnam	Power Equipment Operator: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under Mandrel).	\$49.77	29.80 + a
Windham	Putnam	Power Equipment Operator: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	\$50.22	29.80 + a
Windham	Putnam	Power Equipment Operator: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and over.	\$53.33	29.80 + a
Windham	Putnam	Power Equipment Operator: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	\$49.25	29.80 + a
Windham	Putnam	Power Equipment Operator: Crane Handling or Erecting Structural Steel or Stone, Hoisting Engineer (2 drums or over). (Trade License Required)	\$58.19	29.80 + a
Windham	Putnam	Power Equipment Operator: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	\$45.96	29.80 + a
Windham	Putnam	Power Equipment Operator: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	\$57.78	29.80 + a
Windham	Putnam	Power Equipment Operator: Cranes (under 100 ton rated capacity).	\$56.79	29.80 + a
Windham	Putnam	Power Equipment Operator: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	\$45.96	29.80 + a

As of: July 1, 2025

Residential Rates

County	Town	Classification	Hourly Rate	Hourly Benefit
Windham	Putnam	Power Equipment Operator: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder), Vacuum Excavation Truck and Hydrovac Excavation Truck (27 HG pressure or greater).	\$48.67	29.80 + a
Windham	Putnam	Power Equipment Operator: Wellpoint Operator	\$45.87	29.80 + a
Windham	Putnam	Power Equipment Operator: Compressor Battery Operator	\$45.12	29.80 + a
Windham	Putnam	Power Equipment Operator: Elevator Operator; Tow Motor Operator (solid tire no rough terrain).	\$43.60	29.80 + a
Windham	Putnam	Power Equipment Operator: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	\$43.06	29.80 + a
Windham	Putnam	Power Equipment Operator: Maintenance Engineer	\$42.20	29.80 + a
Windham	Putnam	Power Equipment Operator: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator; Portable Grout Plant Operator; Portable Water Filtration Plant Operator.	\$47.91	29.80 + a
Windham	Putnam	Power Equipment Operator: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	\$44.70	29.80 + a
Windham	Putnam	Surveyor: Chief of Party	\$48.16	29.80 + a
Windham	Putnam	Surveyor: Assistant Chief of Party	\$44.41	29.80 + a
Windham	Putnam	Surveyor: Instrument Man	\$42.73	29.80 + a
Windham	Putnam	Surveyor: Rodman or Chainman	\$36.78	29.80 + a
Windham	Putnam	Sheet Metal Mechanics (Including HVAC Duct Installation) (Trade License required: SM-1,2,3,4,5,6)	\$44.70	44.38
Windham	Putnam	HVAC Mechanics	\$15.69	1.49
Windham	Putnam	Electricians (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2, V-1,2,7,8,9)	\$48.25	35.22 + 3 % of gross wage
Windham	Putnam	Glazier	\$30.16	10.10 + a
Windham	Putnam	Painter	\$27.85	10.10 + a
Windham	Putnam	Painter: Taper	\$28.33	10.10 + a
Windham	Putnam	Laborers: General Laborers	\$25.24	15.86
Windham	Putnam	Plumber/Pipefitter (Including HVAC Pipe Installation) (CT Occupational Trade License Required)	\$50.98	35.85
Windham	Scotland	Asbestos Worker/Heat and Frost Insulator	\$48.81	34.05
Windham	Scotland	Boilermakers	\$36.97	17.52
Windham	Scotland	Carpenter	\$26.55	12.82
Windham	Scotland	Bricklayers, Cement Masons, PCC, Plasterers, Stone Masons	\$42.03	17.50
Windham	Scotland	Roofers: Composition (asphalt shingles)	\$31.10	14.46
Windham	Scotland	Sprinkler Fitters (Fire Sprinklers) (Trade License required: F-1,2,3,4)	\$53.76	33.44 + a

As of: July 1, 2025

Federal Wage Rates

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State: Connecticut

Construction Types: Heavy

Counties: Connecticut Counties of
Fairfield, Hartford, Litchfield,
Middlesex, New Haven, New London,
Tolland and Windham

All dredging, except self propelled hopper dredging, on the Atlantic Coast and tributary waters emptying into the Atlantic Ocean

Modification Number	Publication Date
1	01/30/2026
2	05/18/2026

ENGI0025-001 10/01/2025

	Rates	Fringes
DREDGING: CLASS D: OILER, DECKHAND, SHOREMAN, RODMAN, SCOWMAN, COOK, MESSMAN, PORTER/JANITOR. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) \$1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) \$1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR \$1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) \$1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG \$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) \$1.55; WELDER (ABS CERTIFICATION) \$1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....\$ 30.86		14.15
DREDGING: CLASS C2: BOAT OPERATOR. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) \$1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) \$1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR \$1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) \$1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG \$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) \$1.55; WELDER (ABS CERTIFICATION) \$1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....\$ 37.15		14.57
DREDGING: CLASS C1: MATE, DRAG BARGE OPERATOR, ASSISTANT FILL PLACER, WELDER, STEWARD. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) \$1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) \$1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR \$1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) \$1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG \$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) \$1.55; WELDER (ABS CERTIFICATION) \$1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....\$ 37.15		14.57

<p>CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG \$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) \$1.55; WELDER (ABS CERTIFICATION) \$1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....\$ 38.38</p> <p>DREDGING: CLASS B2: CERTIFIED WELDER. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) \$1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) \$1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR \$1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) \$1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG \$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) \$1.55; WELDER (ABS CERTIFICATION) \$1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....\$ 39.46</p> <p>DREDGING: CLASS B1: DERRICK OPERATOR (180 SWING), SPIDER/SPILL BARGE OPERATOR, ENGINEER, ELECTRICIAN, CHIEF WELDER, CHIEF MATE, FILL PLACER, OPERATOR II, MAINTENANCE ENGINEER, LICENSED BOAT OPERATOR, LICENSED CREW BOAT OPERATOR. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) \$1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) \$1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR \$1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) \$1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG \$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) \$1.55; WELDER (ABS CERTIFICATION) \$1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....\$ 41.93</p> <p>DREDGING: CLASS A2: CRANE OPERATOR (360 SWING) INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) \$1.80 LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) \$1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR \$1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) \$1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG \$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) \$1.55; WELDER (ABS CERTIFICATION) \$1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED.....\$ 43.20</p> <p>DREDGING: CLASS A1: DECK CAPTAIN; MECHANICAL DREDGE OPERATOR, LEVERMAN, LICENSED TUG OPERATOR OVER 1000 HP. INCENTIVE PAY: (ADD TO HOURLY RATE) OPERATOR (NCCCO LICENSE/CERTIFICATION) \$1.80</p>	<p>14.66</p> <p>14.73</p> <p>14.90</p> <p>14.99</p>
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LICENSED TUG OPERATOR OVER 1000 HP (ASSIGNED AS MASTER) (USCG LICENSED MASTER OF TOWING VESSELS (MOTV) \$1.80; LICENSED BOAT OPERATOR (ASSIGNED AS LEAD BOAT CAPTAIN) USCG LICENSED BOAT OPERATOR \$1.30; ENGINEER (QMED AND TANKERMAN ENDORSEMENT OR LICENSED ENGINEER (USCG) \$1.80 OILER (QMED AND TANKERMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (TANKERMAN ENDORSEMENT ONLY) USCG \$1.55; DECKHAND OR MATE (AB WITH LIFEBOATMAN ENDORSEMENT (USCG) \$1.80; ALL CLASSIFICATIONS (LIFEBOATMAN ENDORSEMENT ONLY (USCG) \$1.55; WELDER (ABS CERTIFICATION) \$1.55 FOOTNOTES APPLICABLE TO ABOVE CRAFTS: A. PAID HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING, JR.'S BIRTHDAY, MEMORIAL DAY, GOOD FRIDAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY AND CHRISTMAS DAY B. VACATION: EIGHT PERCENT (8%) OF THE STRAIGHT TIME RATE, MULTIPLIED BY THE TOTAL HOURS WORKED....\$ 48.48

15.34

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 <https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 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) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than **◆SU◆**, **◆UAVG◆**, **◆SA◆**, or **◆SC◆** denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ♦SU♦ identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

♦SU♦ wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ♦SA♦ identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ♦SA♦ identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

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

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

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

Regarding any other wage determination matter such as

conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail 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 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.

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END OF GENERAL DECISION
"

State: Connecticut

Construction Types: Highway

Counties: Connecticut Counties of
Fairfield, Litchfield, Middlesex, New
Haven, Tolland and Windham

Modification Number	Publication Date
1	01/23/2026
2	05/18/2026

BRCT0001-004 01/05/2026

	Rates	Fringes
BRICKLAYER (BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, PLASTERERS AND STONE MASONS).....	\$ 46.09	36.29

CARP0326-003 05/05/2025

	Rates	Fringes
CARPENTERS:: DIVERS (LITCHFIELD COUNTY HARWINTON, PLYMOUTH, THOMASTON, WATERTOWN MIDDLESEX COUNTY NEW HAVEN COUNTY BEACON FALLS, BETHANY, BRANFORD, CHESHIRE, EAST HAVEN, GUILFORD, HAMDEN. MADISON, MERIDEN, MIDDLEBURY, NAUGATUCK, NEW HAVEN, NORTH BRANFORD, NORTH HAVEN, ORANGE (EAST OF ORANGE CENTER ROAD AND NORTH OF ROUTE 1, AND NORTH OF ROUTE 1 AND EAST OF THE OYSTER RIVER), PROSPECT, SOUTHBURY, WALLINGFORD, WATERBURY, WEST HAVEN, WOLCOTT, WOODBRIDGE TOLLAND COUNTY ANDOVER, COLUMBIA, COVENTRY,.....	\$ 50.49	29.19
CARPENTERS:: DIVER TENDERS (LITCHFIELD COUNTY HARWINTON, PLYMOUTH, THOMASTON, WATERTOWN MIDDLESEX COUNTY NEW HAVEN COUNTY BEACON FALLS, BETHANY, BRANFORD, CHESHIRE, EAST HAVEN, GUILFORD, HAMDEN. MADISON, MERIDEN, MIDDLEBURY, NAUGATUCK, NEW HAVEN, NORTH BRANFORD, NORTH HAVEN, ORANGE (EAST OF ORANGE CENTER ROAD AND NORTH OF ROUTE 1, AND NORTH OF ROUTE 1 AND EAST OF THE OYSTER RIVER), PROSPECT, SOUTHBURY, WALLINGFORD, WATERBURY, WEST HAVEN, WOLCOTT, WOODBRIDGE TOLLAND COUNTY ANDOVER, COLUMBIA, COV.....	\$ 42.03	29.19
CARPENTERS:: CARPENTERS, PILEDRIVERS (LITCHFIELD COUNTY HARWINTON, PLYMOUTH, THOMASTON, WATERTOWN MIDDLESEX COUNTY NEW HAVEN COUNTY BEACON FALLS, BETHANY, BRANFORD, CHESHIRE, EAST HAVEN, GUILFORD, HAMDEN. MADISON, MERIDEN, MIDDLEBURY, NAUGATUCK, NEW HAVEN, NORTH BRANFORD, NORTH HAVEN, ORANGE (EAST OF ORANGE CENTER ROAD AND NORTH OF ROUTE 1, AND NORTH OF ROUTE 1 AND EAST OF THE OYSTER RIVER), PROSPECT, SOUTHBURY, WALLINGFORD, WATERBURY, WEST HAVEN, WOLCOTT, WOODBRIDGE TOLLAND COUNTY		

ANDOVER, COL.....	\$ 42.03	29.19
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CARP0326-014 05/05/2025

	Rates	Fringes
CARPENTERS: DIVERS (TOLLAND COUNTY BOLTON, ELLINGTON, SOMERS, TOLLAND, VERNON).....	\$ 50.49	29.19
CARPENTERS: DIVER TENDERS (TOLLAND COUNTY BOLTON, ELLINGTON, SOMERS, TOLLAND, VERNON).....	\$ 42.03	29.19
CARPENTERS: CARPENTERS, PILEDRIVERS (TOLLAND COUNTY BOLTON, ELLINGTON, SOMERS, TOLLAND, VERNON).....	\$ 42.03	29.19

CARP0326-017 05/05/2025

	Rates	Fringes
CARPENTERS: DIVERS.....	\$ 50.49	29.19
CARPENTERS: DIVER TENDERS.....	\$ 42.03	29.19
CARPENTERS: CARPENTERS, PILEDRIVERS.....	\$ 42.03	29.19

CARP1121-006 01/05/2026

	Rates	Fringes
MILLWRIGHT.....	\$ 45.14	30.24

ELEC0003-007 04/17/2025

	Rates	Fringes
ELECTRICIAN (FAIRFIELD COUNTY (DARIEN, GREENWICH, NEW CANAAN, STAMFORD)).....	\$ 45.00	36.63

ELEC0035-001 06/01/2025

	Rates	Fringes
ELECTRICIANS (MIDDLESEX COUNTY (CROMWELL, MIDDLEFIELD, MIDDLETON AND PORTLAND); TOLLAND COUNTY; WINDHAM COUNTY).....	\$ 48.25	36.67

ELEC0090-002 06/01/2025

	Rates	Fringes
ELECTRICIANS:.....	\$ 46.48	38.05

ELEC0488-002 06/01/2025

	Rates	Fringes
ELECTRICIANS.....	\$ 47.40	36.74

ENGI0478-001 04/06/2025

	Rates	Fringes
POWER EQUIPMENT OPERATORS: GROUP 4 TRENCHING MACHINES, LIGHTER DERRICK, CONCRETE FINISHING MACHINE, CMI MACHINE OR SIMILAR, KOEHRING LOADER (SKOOPER). 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.....	\$ 51.92	29.80
POWER EQUIPMENT OPERATORS: GROUP 21 EXCAVATOR, 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 OPERAING), RUBBER TIRE EXCAVATOR (DROTT		

1085 SIMILAR), GRADER OPERATOR, BULLDOZER FINEGRADE (SLOPES SHAPING, LASER OR GPS, ECT.) 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.....\$ 51.92 29.80

POWER EQUIPMENT OPERATORS: GROUP 20 EXCAVATOR OVER 2 CUBIC YARDS; PILE DRIVER(\$3.00 PREMIUM WHEN OPERATOR CONTROLS HAMMER). 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.....\$ 52.92 29.80

POWER EQUIPMENT OPERATORS: GROUP 19 FRONT END LOADER(7 CUBIC YARDS OR OVER); WORK BOAT 26 FT. AND OVER. 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.....\$ 53.33 29.80

POWER EQUIPMENT OPERATORS: GROUP 18 MAINTENANCE ENGINEER. 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.....\$ 42.20 29.80

POWER EQUIPMENT OPERATORS: GROUP 17 GENERATOR OPERATOR, COMPRESSOR OPERATOR, PUMP OPERATOR,WELDING MACHINE OPERATOR; HEATER OPERATOR. 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.....\$ 43.06 29.80

POWER EQUIPMENT OPERATORS: GROUP 16 ELEVATOR OPERATOR, TOW MOTOR OPERATOR (SOLID TIRE NO ROUGH TERRAIN). 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.....\$ 43.60 29.80

POWER EQUIPMENT OPERATORS: GROUP 15 POWER SAFETY BOAT, VACUUM TRUCK, ZIM MIXER, SWEEPER; (MINIMUM FOR ANY JOB REQUIRING A CDL LICENSE) . 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.....\$ 44.70 29.80

POWER EQUIPMENT OPERATORS: GROUP 14 COMPRESSOR BATTERY OPERATOR. 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.....	\$ 45.12	29.80
POWER EQUIPMENT OPERATORS: GROUP 13 PORTABLE ASPHALT PLANT OPERATOR, PORTABLE CONCRETE PLANT OPERATOR, PORTABLE CRUSHER PLANT OPERATOR, PORTABLE GROUT PLANT OPERATOR, PORTABLE WATER FILTRATION PLANT OPERATOR. 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.....		
	\$ 47.91	29.80
POWER EQUIPMENT OPERATORS: GROUP 12 WELLPOINT OPERATOR. 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.....		
	\$ 45.87	29.80
POWER EQUIPMENT OPERATORS: GROUP 11 CONVEYOR, EARTH ROLLER, POWER PAVEMENT BREAKER (WHIPHAMMER), ROBOT DEMOLITION EQUIPMENT. 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.....		
	\$ 45.96	29.80
POWER EQUIPMENT OPERATORS: GROUP 10 VIBRATORY HAMMER, ICE MACHINE, DIESEL & AIR, HAMMER, ETC. 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.....		
	\$ 45.96	29.80
POWER EQUIPMENT OPERATORS: 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), VACUUM EXCAVATION TRUCK AND HYDROVAC EXCAVATION TRUCK (27 HG PRESSURE OR GREATER). 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.....		
	\$ 48.67	29.80
POWER EQUIPMENT OPERATORS: GROUP 8 MECHANIC, GREASE TRUCK OPERATOR, HYDROBLASTER, BARRIER MOVER, POWER STONE SPREADER, WELDER, WORK BOAT UNDER 26 FT. TRANSFER MACHINE. 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.....		
	\$ 49.25	29.80

POWER EQUIPMENT OPERATORS: 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). 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.....\$ 49.25 29.80

POWER EQUIPMENT OPERATORS: GROUP 6 FRONT END LOADER (3 CU. YDS. UP TO 7 CU. YARDS), BULLDOZER (ROUGH GRADE DOZER) . 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.....\$ 50.22 29.80

POWER EQUIPMENT OPERATORS: 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 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.....\$ 50.63 29.80

POWER EQUIPMENT OPERATORS: GROUP 3 CRANES (UNDER 100 TON RATED CAPACITY) 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 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.....\$ 56.79 29.80

POWER EQUIPMENT OPERATORS: GROUP 2 CRANES (100 TON CAPACITY & OVER) BAUER DRILL/CAISSON 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 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.....	\$ 57.78	29.80
POWER EQUIPMENT OPERATORS: GROUP 1 CRANE HANDLING OR ERECTING STRUCTURAL STEEL OR STONE, HOISTING ENGINEER (2 DRUMS OR OVER) 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 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.....		
	\$ 58.19	29.80

IRON0015-002 06/02/2025

	Rates	Fringes
IRONWORKERS: REINFORCING, STRUCTURAL AND PRECAST CONCRETE ERECTION. PAID HOLIDAY: LABOR DAY PROVIDED EMPLOYEE HAS BEEN ON THE PAYROLL FOR THE 5 CONSECUTIVE WORK DAYS PRIOR TO LABOR DAY.....	\$ 45.25	43.62

LABO0146-001 04/06/2025

	Rates	Fringes
LABORERS: GROUP 9: TOXIC WASTE REMOVERS A OR B WITH PPE (ON A SITE DESIGNATED AS A SUPERFUND SITE BY THE U.S. ARMY CORPS OF ENGINEERS AND IS DEEMED A HAZ-MAT SITE, AND APPLIES TO EMPLOYEES REQUIRED TO WEAR OSHA LEVAL A OR B EVEN IF THE PPE IS NOT WORN.).....	\$ 38.70	28.85
LABORERS: GROUP 8: ACETYLENE BURNER (HOURS WORKED WITH A TORCH).....	\$ 36.70	28.85
LABORERS: GROUP 7 TRAFFIC CONTROL SIGNALMAN.....	\$ 21.42	28.85
LABORERS: GROUP 6 TOXIC WASTE REMOVER.....	\$ 37.70	28.85
LABORERS: GROUP 5 BLASTERS.....	\$ 37.45	28.85
LABORERS: GROUP 4 ASBESTOS/LEAD REMOVAL.....	\$ 38.70	28.85
LABORERS: GROUP 3 PIPELAYERS, JACKHAMMER/PAVEMENT BREAKER (HANDHELD), MASON TENDERS/CATCH BASIN BUILDERS, ASPHALT RAKERS, AIR TRACK OPERATORS, BLOCK PAVER AND CURB SETTER.....	\$ 36.20	28.85
LABORERS: GROUP 2 CHAIN SAW OPERATORS, FENCE AND GUARD RAIL ERECTORS, PNEUMATIC TOOL OPERATORS AND POWDERMEN.....	\$ 35.95	28.85
LABORERS: GROUP 1 LABORERS (UNSKILLED), CONCRETE SPECIALIST.....	\$ 35.70	28.85

LABO0146-002 04/06/2025

Rates	Fringes
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LABORERS: TUNNEL CONSTRUCTION: TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: MUCKING MACHINE OPERATOR 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.....	\$ 45.01	28.85
LABORERS: TUNNEL CONSTRUCTION: TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: CHANGE HOUSE ATTENDANTS, POWDER WATCHMEN, TOP ON IRON BOLT 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.....	\$ 42.24	28.85
LABORERS: TUNNEL CONSTRUCTION: TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: BRAKEMEN, TRACKMEN, GROUTMAN, LABORERS, OUTSIDE LOCK TENDER, GAUGE TENDERS 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.....	\$ 44.22	28.85
LABORERS: TUNNEL CONSTRUCTION: TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: BLASTER 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.....	\$ 44.42	28.85
LABORERS: TUNNEL CONSTRUCTION: SHIELD DRIVE AND LINER PLATE TUNNELS IN FREE AIR: MINERS, MOTORMEN, MUCKING MACHINE OPERATORS, NOZZLEMEN, GROUT MEN, SHAFT AND TUNNEL, STEEL AND RODMEN, SHIELD AND ERECTOR, ARM OPERATOR, CABLE TENDERS 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.....	\$ 37.93	28.85
LABORERS: TUNNEL CONSTRUCTION: SHIELD DRIVE AND LINER PLATE TUNNELS IN FREE AIR: BRAKEMEN AND TRACKMEN 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.....	\$ 36.96	28.85
LABORERS: TUNNEL CONSTRUCTION: ROCK SHAFT, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR: MINERS 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.....	\$ 37.93	28.85
LABORERS: TUNNEL CONSTRUCTION: ROCK SHAFT, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR: LABORERS TOPSIDE, CAGE TENDERS, BELLMAN 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.....		
	\$ 36.85	28.85
LABORERS: TUNNEL CONSTRUCTION: ROCK SHAFT, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR: BRAKEMEN, TRACKMEN, TUNNEL LABORERS, SHAFT LABORERS 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.....		
	\$ 36.96	28.85
LABORERS: TUNNEL CONSTRUCTION: CLEANING, CONCRETE AND CAULKING TUNNEL: FORM ERECTORS 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.....		
	\$ 37.29	28.85
LABORERS: TUNNEL CONSTRUCTION: CLEANING, CONCRETE AND CAULKING TUNNEL: CONCRETE WORKERS, FORM MOVERS AND STRIPPERS 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.....		
	\$ 36.96	28.85

PAIN0011-001 06/01/2025		
	Rates	Fringes
PAINTERS: TANKS, TOWERS, SWING.....	\$ 41.57	26.75
PAINTERS: BRUSH AND ROLL.....	\$ 39.57	26.75
PAINTERS: BLAST AND SPRAY.....	\$ 42.57	26.75

PAIN0011-003 06/01/2024		
	Rates	Fringes
PAINTERS: BRUSH, ROLLER, BLASTING (SAND, WATER, ETC.) SPRAY (BRIDGE CONSTRUCTION).....	\$ 59.70	26.90

TEAM0251-002 04/06/2025		
	Rates	Fringes
TRUCK DRIVERS: SPECIALIZED (EARTH MOVING EQUIPMENT OTHER THAN CONVENTIONAL TYPE ON-THE-ROAD TRUCKS AND SEMI-TRAILERS, INCLUDING EUCLIDS) 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.....	\$ 36.44	32.68
TRUCK DRIVERS: SNORKLE TRUCK 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.....		
	\$ 36.54	32.68
TRUCK DRIVERS: HEAVY DUTY TRAILER UP TO 40 TONS 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.....		
	\$ 37.39	32.68
TRUCK DRIVERS: HEAVY DUTY TRAILER 40 TONS AND OVER 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.....		
	\$ 38.66	32.68
TRUCK DRIVERS: 4 AXLE READY MIX 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.....		
	\$ 37.19	32.68
TRUCK DRIVERS: 4 AXLE 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.....		
	\$ 36.39	32.68
TRUCK DRIVERS: 3 AXLE READY MIX 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.....		
	\$ 36.33	32.68
TRUCK DRIVERS: 3 AXLE 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.....	\$ 36.27	32.68
TRUCK DRIVERS: 2 AXLE READY MIX 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.....		
	\$ 36.27	32.68

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
<https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject
to the Davis-Bacon Act that were awarded on or between January 1,
2015 and January 29, 2022, and that have not been renewed or
extended on or after January 30, 2022. Executive Order 13658 does
not apply to contracts subject only to the Davis-Bacon Related Acts
regardless of when they were awarded. If a contract is subject to
Executive Order 13658, the contractor must pay all covered workers
at least \$13.65 per hour (or the applicable wage rate listed on this
wage determination, if it is higher) for all hours spent performing on
the contract from May 11, 2026, through December 31, 2026. The
applicable Executive Order minimum wage rate will be adjusted annually.
Additional information on contractor requirements and worker
protections under Executive Order 13658 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) (iii)).

The body of each wage determination lists the classifications
and wage rates that have been found to be prevailing for the
type(s) of construction and geographic area covered by the wage
determination. The classifications are listed in alphabetical
order under rate identifiers indicating whether the particular
rate is a union rate (current union negotiated rate), a survey
rate, a weighted union average rate, a state adopted rate, or a
supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than **SU**, **UAVG**, **SA**, or **SC** denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The **SU** identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

SU wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The **SA** identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R. 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the

state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the **SA** identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

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

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

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

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

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Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
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2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail 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 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.

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END OF GENERAL DECISION

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State: Connecticut

Construction Types: Residential

Counties: Connecticut Counties of
Litchfield and Windham

RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up
to and including 4 stories)

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

ENGI0478-003 04/06/2025

	Rates	Fringes
POWER EQUIPMENT OPERATORS: FRONT END LOADERS (3 CY UP TO 7 CY) HAZARDOUS WASTE PREMIUM \$3.00 PER HOUR OVER CLASSIFIED RATE. 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.....	\$ 50.22	29.80

SUCT1992-001 01/29/1992

	Rates	Fringes
TRUCK DRIVER (3 AXLE).....	\$ 13.69	2.05
POWER EQUIPMENT OPERATORS: BULLDOZERS.....	\$ 13.40	1.29
POWER EQUIPMENT OPERATORS: BACKHOES.....	\$ 16.87	2.45
PLUMBER (EXCLUDING HVAC WORK).....	\$ 14.25	2.31
PAINTER (EXCLUDING DRYWALL FINISHING).....	\$ 8.96	0.00
LABORERS: UNSKILLED.....	\$ 13.17	2.89
LABORERS: LANDSCAPE WORKERS.....	\$ 8.00	0.49
INSULATOR - BATT.....	\$ 8.40	2.60
HVAC MECHANIC.....	\$ 11.00	1.49
CEMENT MASON/CONCRETE FINISHER.....	\$ 10.50	0.48

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 <https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 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) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

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A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

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SU wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

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WAGE DETERMINATION APPEALS PROCESS

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

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Wage and Hour Division
U.S. Department of Labor
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Washington, DC 20210

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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 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.

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END OF GENERAL DECISION
"

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WORK CHANGE DIRECTIVE NO.: ____

Owner: _____ Owner's Project No.: _____
Engineer: _____ Engineer's Project No.: _____
Contractor: _____ Contractor's Project No.: _____
Project: Lead Service Line Replacement Program
Contract Name: _____
Date Issued: _____ Effective Date of Work Change Directive: _____

Contractor is directed to proceed promptly with the following change(s):

Description:

Attachments:

Purpose for the Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☐ Non-agreement on pricing of proposed change. ☐ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: \$ _____ [increase] [decrease] [not yet estimated].

Contract Time: _____ days [increase] [decrease] [not yet estimated].

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

Recommended by Engineer

Authorized by Owner

By:

Title:

Date:

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CHANGE ORDER NO.: ____

Owner: _____ Owner's Project No.: _____
Engineer: _____ Engineer's Project No.: _____
Contractor: _____ Contractor's Project No.: _____
Project: _____ Lead Service Line Replacement Program
Contract Name: _____
Date Issued: _____ Effective Date of Change Order: _____

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

Description: _____

Attachments: _____

Change in Contract Price	Change in Contract Times [State Contract Times as either a specific date or a number of days]
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. ____ \$ _____	[Increase] [Decrease] from previously approved Change Orders No.1 to No. ____ Substantial Completion: _____ Ready for final payment: _____
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] this Change Order: \$ _____	[Increase] [Decrease] this Change Order: Substantial Completion: _____ Ready for final payment: _____
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____

Recommended by Engineer (if required)		Accepted by Contractor	
By: _____	_____	_____	_____
Title: _____	_____	_____	_____
Date: _____	_____	_____	_____
Authorized by Owner		Approved by Funding Agency (if applicable)	
By: _____	_____	_____	_____
Title: _____	_____	_____	_____
Date: _____	_____	_____	_____

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FIELD ORDER NO.: ____

Owner:

Owner's Project No.:

Engineer:

Engineer's Project No.:

Contractor:

Contractor's Project No.:

Project:

Contract Name:

Date Issued:

Effective Date of Field Order:

Contractor is hereby directed to promptly perform the Work described in this Field Order, issued in accordance with Paragraph 11.04 of the General Conditions, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification Section(s):

Drawing(s) / Details (s):

Description:

Attachments:

Issued by Engineer

By: _____

Title: _____

Date: _____

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SECTION 01010 SUMMARY OF WORK

PART 1 GENERAL

1.01 LOCATION OF WORK

- A. The work of this Contract is located within the Town of Putnam Water Pollution Control Authority (WPCA) service territory, which includes the towns of Putnam and Woodstock, Connecticut. The Work Area is defined as the area shown in the Project Area Map in Appendix A of the Project Manual. A list of addresses for lead service line replacements is included in Appendix A of the Project Manual. These are addresses which are required to be contacted and inspected; if it is found that the service line is lead, and the homeowner has signed the Putnam Water Pollution Control Authority (WPCA) Right of Entry and Release Form for FREE Galvanized Service Line Replacement (Right-of-Entry (ROE) and Release Form for Galvanized Service Line Replacement), the lead service lines are to be replaced. Locations with known galvanized materials were contacted to get the Right-of-Entry (ROE) and Release Form for Galvanized Service Line Replacement signed prior to the start of construction, however, if additional galvanized or lead services are identified in the field, the Contractor shall be responsible for ensuring the form is signed before conducting any replacement. In addition to locations where galvanized or lead services are identified in the field, Contractor should follow up with locations with known galvanized requiring replacement materials that have not signed the form prior to the start of construction.
- B. The Lead Service Line Replacement Program will target replacements of lead service lines within multiple areas of the Town of Putnam WPCA service territory, as included in Appendix A. For the purposes of this project, galvanized steel on the private side that is currently downstream of lead or was previously downstream of lead, including piping and fittings, is defined as a lead service line and should be removed and treated as if it was a lead pipe. Addresses may be added to and removed from the list in Appendix A by the Engineer or Owner within the defined Work Area throughout the project duration for a total of up to 223 service line replacements. Replacements will primarily be for the private side only, typically from the curb stop to the water meter in the building using copper pipe. However, public side replacements will be performed if lead is identified onsite upstream of the curb stop. Certain locations may require special replacement procedures, including the relocation of the service line from the water main to the building. Contractor may perform replacements at addresses not listed in Appendix A only under the conditions discussed in Section 01170, Paragraph 1.17.I.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required to replace up to 223 service line replacements, and construct the Lead Service Line Replacement Program in its entirety as specified herein and as shown in the details in Appendix B.
- B. Provide adequate workforce including service replacement crews, restoration crews, outreach crew, plumbers, and subcontractors to execute the work within the Contract Duration while maintaining a minimum monthly quota of 40 completed service replacements per month starting in the fourth month of the contract. The minimum number of replacements must be met each month starting the fourth month of the contract as the average is not rolling. Access issues related to the Contractor not obtaining sufficient Right-of-Entry (ROE) and Release Forms is

not an acceptable reason for not meeting the minimum quota. The Owner may terminate for cause if the Contractor fails to maintain a minimum monthly quota of 40 service replacements per month.

C. The Work includes, but is not necessarily limited to, the following:

1. Furnishing and installing new copper service tubing, corporation stop, curb stops and boxes, ball valves, core drilling and adapters and fittings of the necessary size required to reinstate water service to the customer, and disposal of existing domestic lead water service lines in accordance with all local, state, and federal requirements including appurtenances. Existing service lines shall be replaced with the new service lines of diameter closest (and rounded up) to the next incremental size of 1-inch, 1.5-inch or 2-inch diameter. New 1-inch service lines shall replace all existing service lines less than or equal to 1-inch. New 1.5-inch service lines shall replace all existing services lines greater than 1-inch and less than or equal to 1.5-inch. New 2-inch service lines shall replace all existing services lines greater than 1.5-inch and less than or equal to 2-inch. All work required for lead service line replacements, including but not limited to:
 - a. Coordination with the Owner.
 - b. Obtaining the Right-of-Entry (ROE) and Release Form for Galvanized Service Line Replacement from Property Owners.
 - c. Coordination and scheduling of work on private property with Customer (which shall include property owners, residents, tenants, and businesses).
 - d. Coordination with other contractors working on other projects within the Work Area
 - e. Traffic control, including uniformed police officers and flaggers, as required.
 - f. Visual inspection of the service line within the property building.
 - g. Test pits.
 - h. Pavement and concrete removal, including saw cutting, as required.
 - i. Excavation and backfilling.
 - j. Testing and disposal of excess soil as non-hazardous, contaminated soil.
 - k. Removal and proper legal disposal of lead or galvanized service lines, concrete, asphalt, vegetation, clean and surplus contaminated waste and material, excess soil, and other surplus waste and materials in accordance with all local, state, and federal requirements.
 - l. Dewatering and shoring.
 - m. Trenchless installation, and open-cut installation when needed.
 - n. Leakage testing and flushing of new service lines in accordance with AWWA Standard C810.
 - o. Connecting to existing or newly installed water meter.
 - p. Installation of a new ball valve upstream of the water meter when replacing the private-side.
 - q. Replacing, furnishing, and installing all required ball valves before the meter, moving pressure reducing valves located before the meter to after the meter, if present, and appurtenances of the necessary size required and as required by Connecticut Plumbing Code.
 - r. Temporary water service (as required).
 - s. Photographic documentation of pre and post-construction activities and interior and exterior conditions for each property.
 - t. Documentation of contractor's work and photographs in eBuilder.
 - u. Submittal of service line sketches to WPCA for tap card updates.

- v. All temporary surface restoration work in accordance with local municipality permit conditions
- w. All final surface restoration work to restore all areas disturbed by construction to conditions equal to or better than pre-construction conditions in accordance with local municipality permit conditions.
- x. Furnishing a technician from an Independent Testing Laboratory.
- y. Permits and all required supporting documentation, including but not limited to road opening (municipal and state), wetland, and all other permits required to complete work. Contractor to prepare all required traffic management and detour plans to obtain required road opening permits.

2. All other work required for successful completion of the Work as specified.

1.03 WORK BY LICENSED PLUMBER

- A. The following work shall be performed by a licensed plumber in accordance with Connecticut Plumbing Code under this Contract:
 - 1. Check electrical grounding before cutting into existing water line as specified in Section 02663. Make grounding modifications as required in Section 02663.
 - 2. Installation of new interior copper piping.
 - 3. Installation of new full port ball valves of the necessary size in building interior upstream of the existing building water meter.
 - 4. Final connection to the existing water meter.

1.04 CONTRACTOR'S USE OF PREMISES

- A. Coordinate all work with Owner, Engineer, and Customer to facilitate the usage of water services lines, with minimal conflicts and interruptions to the water service.
- B. Coordinate work to allow full, uninterrupted access to all residences and businesses, and allow for pedestrian access around work zones and closed sidewalks. Contractor shall limit the use of the premises for his/her Work and storage to allow for:
 - 1. Work by other contractors or by Owner.
 - 2. Access of public to homes and businesses.
 - 3. Public use and safety.
 - 4. Fire Protection.
- C. Coordinate use of premises with Owner, Engineer, and Customer prior to the start of Contractor's work thereon.
- D. Contractor shall assume full responsibility for the security of all his/her personnel, materials, and equipment stored on the project including all subcontractors.

- E. If directed by the Owner or Engineer, move any stored items or containers that interfere with operations of Owner, other contractors, Customer or public.
- F. Obtain and pay for the use of additional storage or work areas if needed to perform the Work.

1.05 OWNER AND CUSTOMER OCCUPANCY

- A. Customer (Private property owners, tenants, businesses and residents) will occupy premises during the performance of the work. Coordinate all construction operations with Customer, Owner, and Engineer to minimize conflict and to facilitate usage and occupancy during construction.
- B. Contractor will provide residents with point-of-use pitcher filters, replacement cartridges, installation instructions, filter use and flushing instructions, and health effects flyer after replacement is complete before turning the water back on.
- C. Identify landscaping obstructions that may interfere with construction and notify Property Owner one week before replacement to relocate if Property Owner does not want Contractor to disturb. If Property Owner does not move the obstruction, Contractor shall remove and retain onsite for re-use by Property Owner and complete service line replacement.

1.06 ROAD WORK

- A. Road work in Town of Putnam WPCA service territories or State of Connecticut rights-of-way shall conform to Town or CTDOT requirements where applicable. Contractor shall obtain all permits necessary.
- B. All traffic control devices shall be in accordance with the Manual on Uniform Traffic Control Devices, published by U.S.D.O.T., Federal Highway Administration latest revision, and local police and government requirements.
- C. Where permission is granted to the Contractor by the authority having jurisdiction for the use of road plates to secure excavations on a temporary basis, all road plates shall be recessed to match existing pavement surface and shall be secured with at least four railroad spikes per plate (minimum one spike in each side of plate). Road plates should be replaced with a temporary patch prior to the end of work each week, no road plates should be left in place over the weekend.
- D. Traffic Control Officers and Flaggers will be paid from one of two available allowances, Uniformed Police Traffic Control Allowance or Flagger Traffic Control Allowance. Determination of using police vs. flaggers will be at the discretion of the Contractor unless uniformed police are required in an area by the Town or State.

1.07 MISCELLANEOUS

- A. This project is subject to the federal Build America, Buy America (BABA) and American Iron and Steel (AIS) provisions concerning the use of domestic materials. Refer to EPA BABA resources and guidance from the Office of Management and Budget (OMB) and Made in America Office (MIAO) for further information.

- B. The CT DPH, DEEP, and/or authorized State and Federal representatives shall be allowed access to the site and project records.

END OF SECTION

SECTION 01014
CONSTRUCTION SEQUENCE AND SCHEDULE REQUIREMENTS

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

- A. Provide adequate workforce including service replacement crews, restoration crews, plumbers, and subcontractors to execute the work within the Contract Duration while maintaining the minimum monthly quota as specified in Section 01010.
- B. The water distribution system must provide continuous service to all customers during the construction period and meet all demands required under normal service conditions with the exceptions permitted herein when directly replacing a Customer's water service line.
- C. Submit a proposed construction sequence with a detailed sequence of work for the work area. Contractor shall submit the following for Engineer and Owner review:
 - 1. Lead service line replacement plan including:
 - a. Detailed activities at each location (i.e., contacting the Customer, providing all required notifications, verifying pipe materials, installing the new water service line, removing or abandoning the existing water service line, flushing, and testing, placing into service, restoring, etc.).
 - b. Number of replacement construction crews by month.
 - c. Number of restoration crews by month.
 - d. Estimated construction duration for each crew in each area.
 - e. Estimated service downtime for each Customer.
 - 2. Traffic management and detour plans.
- D. In general, no work which affects or could affect system operations shall be performed without a specific detailed plan by the Contractor approved in advance by the Engineer and the Owner. All requests shall be in writing to the Owner and Engineer.
- E. In accordance with Section 01010, the Contractor shall mobilize by the third month of the contract to meet the monthly quotas and required number of replacement crews.
- F. Contractor shall complete all outreach efforts as required per Section 01170 no later than three (3) months before the end of the Contract.
- G. Contractor shall complete all replacements no later than two months before the end of the Contract to allow time for final restoration in accordance with the minimum required settlement durations in Section 01170.
- H. Construction progress schedules required shall reflect the conditions presented in Section 01310.

1.02 DEFINITIONS AND TERMS

- A. System Operational Constraints: The constraints to the performance of the work required because of system operations which must be maintained at all times are identified in this section. These constraints shall be included in the Contractor's progress schedule and plans.
- B. Construction Scheduling Constraints: The constraints to the performance of the work required because of special sequencing with other parts of the work, calendar time constraints and special testing, commissioning and work procedures are identified in this Section. These constraints are in addition to the standard procedural constraints such as shop drawings, testing, commissioning, training, etc. and the above plant operational constraints. These constraints shall be included in the Contractor's progress schedule.
- C. Special Conditions: Certain special conditions, if any, related to performance or scheduling of the work. Special conditions are identified in this section and Section 01170. If they affect the scheduling of the work, they shall be included in the Contractor's progress schedule.
- D. Owner: Town of Putnam Water Pollution Control Authority, 200 School St, Putnam, Connecticut, 06260.
- E. Engineer: CDM Smith Inc., 101 E. River Drive Suite 1A, East Hartford, Connecticut 06108.
- F. Customer: Refer to Section 008000 – Supplementary Conditions.
- G. Property Owner: Refer to Section 008000 – Supplementary Conditions.
- H. Work Area: Consists of the addresses provided in Appendix A.

1.03 SUBMITTALS

- A. Submit proposed construction sequence with a detailed sequence of work in accordance with the requirements herein and of Section 01300 for Engineer and Owner review and approval prior to starting construction.

1.04 NOTIFICATION REQUIREMENT

- A. Give a minimum of 72 hours advanced notice via door hanger to the Customers of any service line to be replaced or water service disrupted. Engineer shall be responsible for providing the files for the notices. In addition, notify the customer via a 24-hour notice phone call within 24 hours of the replacement to remind them to provide access and to remind them of the hours they should anticipate being without water.
- B. In addition, the Contractor shall provide and distribute door hangers a minimum 72 hours in advance to all residents that may be affected by construction activities and the potential interruption of water service, traffic or parking areas on the street.
- C. “No parking” signs shall be posted for a duration of no more than 5 days at one time and shall be posted at least 24 hours in advance of work commencing at that address.
- D. All work, including customer scheduling, color printing (double-sided full color on white paper) and distributing door hangers, shall be included as part of the replacement bid item.

corresponding with the replacement scheduled at the property and shall be the responsibility of the Contractor.

- E. All registration information will be printed and/or distributed by the Owner.
- F. If the homeowner refuses entry or does not grant the Contractor access to perform an internal inspection, Contractor shall document rejection and provide to Owner and Engineer. Contractor shall not perform a test pit unless approved by Engineer. Contractor shall not charge for any work at locations with documented rejections unless a test pit or partial replacement occurs.

1.05 CONNECTION PREPARATIONS

- A. Where new service piping shall be tied-into existing piping, the new piping installed by Contractor shall be fully prepared in anticipation of the final connection in order to minimize downtime. Coordinate all work as required with Engineer and Owner so that the final connections can be made to the existing water meter. If no water meter previously existed or a new water meter installation is necessary, the Contractor should notify the Owner immediately. See Section 01170 for requirements related to coordination for connection of new water service lines to existing building water meters.
- B. Perform a flush as specified in Section 02663 after any type of replacement is conducted. Flushing shall be of the entire service line.

1.06 SITE CONDITIONS

- A. Locations for lead service line replacement as part of this Contract and typical details for water service connection replacement are included in the appendices of these Specifications. Each location will vary and have unique site conditions. Additional addresses may be added by the Owner or Engineer within the defined Work Area.
- B. Coordinate all work and work activities with the Owner, Engineer, and Customers as specified.
- C. Coordinate the activities with other contractors, if any, to allow the orderly and timely completion of all the work.

1.07 OPERATIONAL CONSTRAINTS

- A. The following is a list of operational constraints to consider in developing the overall plan of construction. This list is not intended to release the Contractor from the responsibility to coordinate the work in any manner which will ensure project completion within the time allowed or to complete the work while maintaining the safety and integrity of the water system. These requirements are such that the Owner can maintain proper flow, pressures and fire flows to the water system at all times. The safety and integrity of the water system are of prime importance.
 - 1. Water service lines to be replaced in the Owner's distribution system have typical normal operating pressures ranging from 40 psi to 120 psi, unless otherwise indicated by the Owner. The Contractor is responsible for verifying and documenting the operating pressure at all locations prior to performing any work.

2. The water distribution system must provide continuous service to all customers during the construction period and meet all demands required under normal service conditions except as permitted herein.
3. All work for lead service line replacements at each location must be completed in a maximum time not to exceed 8 hours from arrival on-site. One (1) temporary shutdown of service line per location will be allowed to facilitate replacement of the lead service line with the shutdown not exceeding 8 hours. In no case shall any customer or location be without potable water service for longer than 8 hours. Provide temporary service, in accordance with Section 01046, if the shutdown will be longer than 8 hours, at Contractor's expense.
4. Unless otherwise approved by the Engineer and Owner, all work shall be performed with water mains live and in service as specified in Section 02663.

1.08 CONSTRUCTION SCHEDULING CONSTRAINTS

- A. The following is a list of scheduling constraints to consider in developing the overall plan of construction. This list is not intended to release the Contractor from the responsibility to coordinate the work in any manner which will ensure project completion within the time allowed. The following items are not necessarily listed in their order of priority or required sequence of construction.
 1. Coordinate all work activities with the Owner, Engineer, and Customer as specified to allow orderly and timely completion of all required work.
 2. Contractor shall be aware of elections, school schedules, certain festivals and activities that occur in the Town which may restrict work at certain times. These activities may cause changes in traffic patterns and road closures in areas of the Town. Contractor is responsible for being aware of the dates, times and locations of all festivals and activities that may be located in work areas and require adjustments to the construction schedule. Coordinate all work with Owner and Engineer. Sites may be prioritized at the Owner's discretion.
 3. Restrictions for placement of final, permanent paving is as specified in Section 02576. All work should be timed to avoid the need to place initial pavement during cold temperatures, as defined in Section 02576.
 4. All initial pavement over trenches and excavations, in the form of hot patch, shall be completed by the end of each workday. No trench or excavated area shall be left past the end of the day without initial pavement placed and installed.
 5. The Right-of-Entry (ROE) and Release Form for Galvanized Service Line Replacement must be obtained before any replacement work can commence on a customer-owned portion of the service line. ROE must be submitted to and approved by the Owner before any work at that address takes place.
 6. The Contractor shall be capable of providing multiple crews as needed to complete the work without undue delay.

7. All documentation of service line materials (pre and post-construction) and work performed shall be made in e-Builder by the end of each workday for the day on which the work is performed.
8. Contractor shall perform a pre-replacement inspection of the interior of the building to identify any construction constraints and make adjustments if necessary.
9. A replacement is scheduled with the homeowner only when the homeowner has provided verbal or written approval. Leaving a voicemail or notice of the replacement time does not qualify as a scheduled replacement.

1.09 HOURS OF CONSTRUCTION

- A. The Contractor's hours of operation will be limited to an 8-hour shift between the hours of 7:00 AM to 5:00 PM on Mondays through Fridays only. There shall be no work performed on Saturdays, Sundays, holidays, or outside the hours of operation unless prior written approval is obtained by the Contractor from the Engineer and Owner.
- B. Work hours shall be as indicated above with the exception of the local requirements for the Town or for the type of roadway or location. The Contractor is responsible for following all local codes, ordinances and permit conditions where the work is taking place.

1.10 ADVERSE WEATHER

- A. The schedule submittal to the Engineer must include planning for typical adverse weather in the project area over the duration of the contract.
- B. The Contractor must provide the Engineer evidence of excessive weather conditions in excess of the adverse weather typically expected by the National Oceanic Atmospheric Administration (NOAA) (<https://www.ncei.noaa.gov/>, 828-271-4800) for the project area, in order to justify a delay due to excess adverse weather (i.e., unusually severe weather).
- C. Time Extension for unusually severe weather:
 1. This provision specifies the requirements for the consideration of time extensions for unusually severe weather. In order for the Engineer to grant a time extension, the following conditions must be satisfied.
 - a. The weather experienced at the project site during the Contract period must be found to be unusually severe, that is, more severe than the adverse weather determined to be typical for the project area according to the NOAA website.
 - b. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.
- D. Upon acknowledgement of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor shall record on the project schedule, the occurrence of adverse weather and resultant impact to normally scheduled Work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01025
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SCOPE

- A. This Section includes specifications for the measurement and payment of the various elements of the Work, with provisions applicable to lump sum prices, unit prices, and allowances, if applicable.
- B. In the case of conflict between this Section and the measurement methods specified in the individual technical Sections, the measurement methods in the technical specifications shall govern.
- C. The Contractor shall receive no payment for any portion of the work until it is installed and accepted by the Engineer. The only exception to this is payment for stored materials on-site if the Contract provides for the payment of stored materials. A partial payment may be requested for items partially installed.

1.02 RELATED WORK

- A. Bid Form is included in Section 00410.
- B. General Conditions are included in Section 00720.
- C. Applications for Payment are included in Section 01026.
- D. Schedule of Values is included in Section 01370.

1.03 LUMP SUM ITEMS

- A. Lump Sum measurement will be for the entire item, unit of work, structure, or combination thereof, as specified and as indicated in the Bid Form. Measurement and payment for all bid items indicated as Lump Sums shall include the cost of all labor, materials, and equipment necessary to furnish, install, clean, test, and place each bid item into operation, including general conditions, overhead and profit.
- B. Progress payments will be based on the Schedule of Values prepared by the Contractor and approved by the Engineer and Owner before acceptance of the first Application for Payment.
- C. In order for the Contractor to request progress payments against Lump Sum items, Contractor shall provide a disaggregation or breakdown in sufficient measurable detail that is acceptable to the Engineer.
- D. Measurement:
 - 1. Measurement shall be based on the estimated percent complete of each item of the Schedule of Values, as determined by the Engineer.

E. Payment:

1. Payment will be made at the lump sum price proportional to the completion percentages approved by the Engineer.
2. Contactor must track and maintain copies of all necessary permits submitted. Retainage as specified in Section 00730 will be held until all permits are approved, paid for and received by Engineer and Owner.

1.04 UNIT PRICE ITEMS

- A. Quantity and measurement estimates stated in the Bid Form are estimates for bidding purposes only. Actual payments shall be based on actual quantities installed, in-place, as measured and/or verified by the Engineer.
- B. Unless otherwise provided in the General Conditions, the bid unit prices shall be in effect throughout the contract duration, regardless of variances between the estimated quantities and the actual quantities.
- C. The Contractor shall make no claim, nor receive any compensation, for anticipated profits, loss of profit, damages, or any extra payment due to any difference between the amounts of work completed, or materials or equipment furnished, and the estimated quantities.
- D. Assist Engineer by providing necessary equipment, workers, and survey personnel as required to measure quantities.

E. Measurement:

1. Measurement for progress payment shall be made by, or approved by, the Engineer based on the estimated effective quantity installed. The effective quantity installed represents the actual units or quantities installed, adjusted for incomplete elements or components.
2. Unless otherwise provided for in the Bid Form, unit price items are all-inclusive of all related work, direct and indirect, to provide a complete and functional item.
3. The final measurement shall be based on actual quantities, jointly measured by Contractor and Engineer, complete, fully, tested and placed into service.

F. Payment:

1. Progress payments shall be in accordance with the contract documents based on estimated effective quantities installed, paid at the bid unit price.
2. The final payment shall be based on actual quantities, fully installed, tested, and placed into service, paid at the bid unit price.

1.05 ALLOWANCES

- A. Allowances, if any, specified in the Contract Documents and indicated in the Bid Form are considered provisional amounts to be used only as needed.

- B. Allowances are exclusive of work indicated in the Contract Documents for which payment is included under other items in the Bid Form. No work may be performed under an allowance without the prior written approval of the Owner.
- C. Any unused balance of the allowances shall revert to the Owner upon completion of the project. Prior to final payment, the original amount provided for allowances shall be adjusted to actual costs by deductive Change Order, adjusting the contract price, accordingly.
- D. The Contractor shall make no claim, nor receive any compensation, for anticipated profits, loss of profit, damages, or any extra payment due to any unexpended portion of the allowances.
- E. Include time for allowance work in the construction schedule. No adjustment of Contract Time will be allowed for any work performed under allowance items.
- F. Allowance items shall be included in the Schedule of Values.
- G. Unless otherwise indicated in the specific measurement and payment provisions under allowance items, the measurable and allowable costs for work performed under an Allowance item shall be limited to the actual, demonstrable, and direct costs associated with that Allowance item. Shipping and sales taxes (if applicable) are allowable costs.
 - 1. No markup for overhead or profit (including cost for bonds) shall be included for payment under an Allowance item. Overhead and profit (including cost for bonds) shall be included in the contract base bid or allocated across other bid items.
 - 2. Work authorized by the Owner under an allowance may be performed as a lump sum (negotiated before the fact), unit prices (when applicable), or time and material. For work performed under time and material, submit detailed verification (break-down) of all costs, subject to the approval of the Engineer or Owner. Time and material records shall be submitted to the Engineer on a daily basis and in no case later than 48 hours after the work is performed.

1.06 DEFECT ASSESSMENT

- A. Replace defective Work, or portions of defective Work, not conforming to specified requirements.
- B. If in the opinion of the Engineer, it is not practical to remove and replace the Work, the Engineer will direct a remedy in accordance with the requirements of the General Conditions.

1.07 NON-PAYMENT FOR REJECTED PRODUCTS

- A. Payment will not be made for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.
 - 3. Products not completely unloaded from the transporting vehicle.
 - 4. Products placed beyond the lines and levels of the required Work.

5. Products remaining on hand after completion of the Work.
6. Loading, hauling, and disposing of rejected products.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 PUBLIC SIDE BID ITEMS (ITEMS 1A.1-1E)

A. General:

1. Replacement Items:

- a. References to Item 1A throughout these specifications refers to both Bid Item 1A.1 and Bid Item 1A.2 unless otherwise stated.
- b. Trenchless or other approved means of lead water service line replacement which may include replacement of the public side only service line (Item 1A.1), replacement of the public side portion of a full replacement (Item 1A.2), and replacement of all necessary appurtenances. All replacements on the public side shall include mobilization, (sanitary facilities, insurance, temporary construction facilities, construction vehicle parking and storage, bonds, permit acquisition and fees, labor, project coordination, control of work, project signs, coordination with homeowner and inspectors, scheduling, notifications, printing, all data and record document management, and preparation of contract required submittals); removal and disposal of excess soil, spoil, rubble, lead pipes and construction debris, vegetation and similar items; soil sampling and testing, all labor, materials, new corporation stop, temporary roadway, temporary sidewalk, and/or yard restoration, equipment required for erosion and sediment control, and protection of existing trees as approved by the Engineer; all work required for or incidental to the satisfactory completion of the Work.
- c. Each property listed by the Owner in Appendix A, or the updated list in the database management system at the time of construction, is the target list for construction. Each property with a signed ROE agreement must have a replacement completed or, if no lead is found on either side, a test pit. Public side only replacements (Item 1A.1) do not require a signed ROE, however, private side material must be confirmed prior to scheduling the public side only replacement in the event the record on the private side is incorrect and is actually lead. If the Property Owner rejects participation in the program or does not provide entry after the outreach described in Section 01170, Paragraph 1.18 is performed, Contractor shall perform a test pit to confirm both the public and private side materials.
- d. The work area at each location, including gutters and any areas where sediment/debris may accumulate, shall be cleaned at a minimum on a daily basis after all construction operations on-site with a sweeper with a water attachment for dust control. A mechanical sweeper must be available on-site and utilized at all times throughout the duration of construction activities.

2. Test Pit at Curb Stop (Item 1B):

- a. A test pit is defined as a planned service line replacement that is found not to be lead on either side, a property where the service line material is unknown on either side of the service line, or the Owner or Engineer specifically directs the Contractor to perform a test pit. Prior to performing a test pit for service line material verification, the Contractor shall make a reasonable effort to obtain access to the property to perform a visual inspection at the point of entry. Test pits shall be performed when service line material cannot be identified through internal inspection, when access is unavailable, or when directed by the Owner or Engineer.
 - b. If there is more than one service in the same excavation as a planned replacement, Contractor must notify the Owner of observed materials at all properties. Contractor must make every effort to inspect and photograph all properties within the excavation. Only test pits at locations in Appendix A (or added to the data management system) with a signed ROE, or as directed by the Owner or Engineer, will be paid for under Item 1B.
3. Service Line Excavation Depth Greater Than 5 Feet (Item 1C):
 - a. Galvanized water service trenching to a depth of greater than 5-feet and non-hazardous waste disposal; shoring; dewatering; installation, backfill; compaction; including all labor, materials, and equipment necessary. All excavation to a depth of 5-feet is included in the replacement bid items.
4. Final Trench Pavement Restoration (Milling and Paving) (Item 1D):
 - a. In general, final pavement restoration will be undertaken where any construction work is performed within the roadways as a result of service line replacement or otherwise deemed necessary in the field based on the paving requirements of the Highway Department or CTDOT permit issued. Pavement replacement necessary resulting from the activities of the Contractor outside of the limits defined in the Details in Appendix B shall be paid for by Contractor. Payment of restoration does not relieve the contractor of responding to complaints by Customers and returning, for the period of the 5-year warranty, to make necessary repairs.
 - b. Owner will make every effort to ensure the proposed quantities for pavement restoration will be provided to the Contractor. However, if the final restoration area is less than the bid quantity, Contractor shall have no claim to modify the price of the unit price item.
 - c. Final Pavement (milling and paving) will be used at the direction of the Engineer when initial paving areas encompass a majority of the pavement surface and as required by the Owner or Department of Public Works and as defined by the Connecticut Department of Transportation Minimum Standards for State and Municipal Road Repair for Utility Work.
5. Final Concrete Sidewalk Restoration (Item 1E):
 - a. When a service line replacement or test pit must disturb sidewalk, driveway or other hardscaping, the final restoration of work will be paid under Item 1E. Item 1E includes final restoration of hardscaping. Only one Item 1E will be paid per Service Line or Test Pit excavation regardless of the number of sides replaced or number of excavation pits. In addition, if replacement or observation of two or more service

lines disturbs the same sidewalk, driveway, or other hardscaping, only one Item 1E will be paid.

B. Measurement:

1. **(Item 1A.1) Lead Service Line Replacement – Public Side Only** - Measurement will be based on the number of installations completed from the water main to the curb stop within the Work Area and shall be contingent on the submission of comparable pre-construction and post-construction photographs of each installation and complete record documents, including all permits, for each property. When only a public side only replacement (i.e., from water main to curb stop) is completed at a property, the Contractor shall be paid under Item 1A.1. Replacement includes all road opening permit acquisition and fees, piping, curb stop valve and box, new corporation stop, appurtenances to make all connections, procurement and placement of warning tape, flushing at the meter, leak testing, equipment required for erosion and sediment control, protection of existing trees, and temporary paving, temporary sidewalk and/or yard restoration. Full Replacements will not be paid for under this item.
2. **(Item 1A.2) Lead Service Line Replacement – Public Side Portion of a Full Replacement** - Measurement will be based on the number of installations completed from the water main to the curb stop within the Work Area, only where the private side of the service line is also being replaced (full replacement) and shall be contingent on the submission of comparable pre-construction and post-construction photographs of each installation and complete record documents, including all permits, for each property. Replacement includes all road opening permit acquisition, piping, curb stop valve and box, procurement and placement of warning tape, flushing at the hose bib, leak testing, equipment required for erosion and sediment control, protection of existing trees, temporary paving, temporary sidewalk and/or yard restoration, and appurtenances to make all connections. Full Replacements performed under this contract within the Work Area will be paid for as the sum of Item 1A.2 and Item 2A.2.
3. **(Item 1B) Test Pit at Curb Stop** - Measurement will be based on the number of locations in Appendix A (or most updated list as provided during construction in the database management system), and those properties that the Owner or Contractor has acquired a Right-of-Entry and Release Form for, where pipe material was unknown and needed to be identified or material was found not to be lead on both the private side and the public side during an attempted replacement or where directed by the Owner or Engineer and all material information is documented by Contractor. Submit comparable pre-construction and post-construction photographs of each test pit, and Owner and Engineer shall accept the surface restoration of the test pit prior to payment. Temporary sidewalk and/or yard restoration shall be included in this item.
4. **(Item 1C) Lead Service Line Excavation Depth Greater Than 5 Feet** - Measurement will be based on cubic yard(s) of excavation beyond a 5-foot depth, as approved by the Engineer, for a maximum trench width as shown in Appendix B, Detail No. 1, if and when directed. If the trench bottom is more than twelve inches below pipe invert through an error by the Contractor or if improper drainage softens the subgrade and additional excavation in the trench or access pit is required before laying the pipe or installing the water service line, such removal and replacement of material will not be paid for by Owner. Measurement by truck count will not be permitted.

5. **(Item 1D) Final Trench Pavement Restoration (Milling and Paving)** - Final Pavement Restoration (Milling and Paving) - Measurement will be based on the cubic yard(s) of patch paving installed at each trench as measured by the Engineer, within the specified widths and completed between 45 and 90 days of placing the temporary paving.
6. **(Item 1E) Final Concrete Sidewalk Restoration** – Measurement will be based on the cubic yard(s) of concrete at locations where replacement work or test pit occurs and disturbs the sidewalk, driveway, or other hardscaping. If the curb stop is not located in hardscaped area but such is damaged during the Contractor’s work, repair and restoration of the damaged area will not be compensated.

C. Payment

1. Full payment for **Item 1A.1 Lead Service Line Replacement – Public Side Only and Item 1A.2 Lead Service Line Replacement – Public Side Portion of a Full Replacement** shall be provided once the following components are completed:
 - a. **Administration:** Price and payment shall include, but not be limited to Property Owner outreach attempts to sign the ROE and tracking of attempts, customer coordination, printing and distributing door hangers for notifications of appointments and disturbances, procurement and posting of no parking signs, local agency coordination for permits, inspections and scheduling, pipe material validation through interior inspection, underground utility mark outs and coordination, pre-construction photographs, and all other preliminary documentation as required by the Contract.
 - b. **Site Preparation:** Price and payment shall include, but not be limited to temporary traffic control including traffic signage; erosion and sediment control; mobilization (sanitary facilities, insurance, temporary construction facilities, construction vehicle parking and storage, bonds, permit preparation, state roadway inspector when working on state roadways, project coordination, control of work, project signs, scheduling, and preparation and submittal of contract required work plans); test pits that result in a replacement or test pits for the contractors’ convenience; cutting existing pavement and concrete; temporarily support and protection of all existing utilities and structures; all excavation up to depth of 5 feet (including hand, vacuum, rock and boulders and concrete road base excavation) including excavation for both trenchless installation and open-cut installation; excavation support and protection (as required); dewatering and drainage.
 - c. **Service Replacement:** Price and payment shall include, but not be limited to: temporary water for customer (as required); furnishing and installation of water service line (up to and including 2-inches in size) to limits defined in individual bid items by trenchless methods or by open-cut methods when approved by the Engineer, including pipe, corporation stop adapter (if needed), curb stop valve and box, all the necessary adapters, couplings, reducers, fittings and appurtenances of the necessary size required to connect to existing piping; flushing as specified, testing of the new service line, placing the service line into service; existing lead water service line and appurtenances removal, disposal, demolition or abandonment; placement of warning tape; backfill materials shown in Appendix B; compaction and compaction testing; stockpiling, sampling and laboratory testing of excess excavated material including, but not limited to, spoil, rubble, concrete, asphalt, vegetation, etc. Payment for these

items shall include all work required for or incidental to the satisfactory completion of the Items for which payment is not provided under other items in the Bid Form.

- d. **Restoration on Public Side:** Price and payment shall include, but not be limited to, temporary traffic control; GPS coordinates of the corporation stop, curb stop, and where the service line enters the house (for full service), service application records, closeout documentation including photographs; restoring exterior physical features; printing and distribution of post-replacement door hangers regarding flushing; temporary paving restoration; temporary sidewalk and/or yard restoration; restoring the trench surface to grade or the limits of roadway base course; forming and pouring concrete curbs to match sidewalk elevation, concrete testing and all other testing required to complete the project as specified herein; transportation and disposal of excess excavated material, spoil, rubble, concrete, asphalt, vegetation, lead pipes and construction debris, etc. in accordance with all Federal, State and local regulations; including all labor, materials and necessary equipment; removal of erosion and sediment control devices; all work required for or incidental to the satisfactory completion of the Items for which payment is not provided under other items in the Bid Form.
 - e. All items, including restoration, must be fully completed prior to requesting payment in full for Bid Items 1A.1 and 1A.2. A payment of 50% can be requested if a service line is installed but the restoration is not yet complete.
 - f. When a private side only replacement (i.e., from curb stop to meter) is completed at a property, the Contractor shall be paid under Bid Items 2A.1.
2. Payment for **Item 1B - Test Pit at Curb Stop**, shall be made as follows: Payment for this Item shall be provided for the Contractor completing 3.01-C.1a Administration, 3.01-C.1b Site Preparation, performing the test pit, and 3.01-C.1d. Test pit shall assume excavation is in concrete and temporary restoration is included in this bid item. Payment for Item 1B will be made if the entire water service line (corporation stop to meter) is found not to be lead or if a test pit is directed to be completed by the Owner or Engineer. No payment will be made under this Item if any pipe replacement is performed. If the curb box is replaced without a portion of the service line being replaced, payment will be made under Item 1B plus Item 2C.1 for the curb box. Contractor will not receive payment for Item 2C.1 if the curb box is damaged during excavation.
 3. Payment for **Item 1C - Lead Service Line Excavation Depth Greater Than 5-Feet** shall be as follows: All work associated with excavation beyond 5-feet in depth shall be included under this bid item unless otherwise stated. Price and payment shall be full compensation for, but not limited to, protection of all existing utilities and structures; excavation (including hand excavation); loading; hauling; excavation support and protection; dewatering and drainage; temporarily support of utilities; backfilling with native soil; compaction; removal of debris, spoils, pipe, tubing, rubble, vegetation, and similar items removed and legally disposed, including all labor, materials and necessary equipment; all work required for or incidental to the satisfactory completion of the Items for which payment is not provided under other items in the Bid Form. Payment for excavation 5-feet or shallower is included in Items 1A.

4. Payment for **Item 1D - Final Trench Pavement Restoration (Milling and Paving)** shall be as follows: All work associated with final milling and paving, shall be included under this bid item unless otherwise stated. Price and payment shall be full compensation for, but not limited to: sweeping, cleaning and preparing the base course surface; traffic control, traffic signage; cutting back existing pavement, milling and disposal, installation of tack coat, furnishing, hauling, and placing the final pavement, compacting, testing, pavement marking restoration, including all labor, materials and necessary equipment; all work required for or incidental to the satisfactory completion of the Items for which payment is not provided under other items in the Bid Form.
5. Payment for **Item 1E – Final Concrete Sidewalk Restoration** shall be as follows: Contractor will be paid for concrete restoration for all sidewalk or driveway slabs disturbed within 2 feet of the existing curb stop. Each request for payment for this bid item shall include a photo of the measurement from the curb stop to the slab. Contractor shall use plywood to minimize damage to existing sidewalks and driveways. Any disturbance or damage of concrete slabs more than 2 feet from the existing curb stop shall be replaced or repaired to existing or better conditions and is considered for the contractor's convenience and will not be paid under this bid item.

3.02 UNIFORMED POLICE TRAFFIC CONTROL ALLOWANCE (ITEM 1F)

A. General

1. The Uniformed Police Traffic Control Allowance will apply only to the labor for traffic control Police officers provided by the Town for the direction of traffic for this Contract per Manual on Uniform Traffic Control Devices.

B. Measurement

1. The Contractor will be reimbursed for costs for uniformed police traffic control officers for the project as invoiced by the Town.

C. Payment

1. Payment for Uniformed Police Traffic Control officers provided by the Town to direct traffic will be made based on the actual time on site and applicable Town Ordinances. No markup will be allowed by the Contractor. The allowance price established in the Bid Form is for bidding purposes only, and the amount paid for Traffic Control may differ from this amount.
 - a. All other costs associated with uniformed police traffic control for this Contract, including traffic control devices, barriers, signage, vehicles, equipment, personnel, and administrative costs, shall be paid under the respective replacement bid items and not under any allowance item.
 - b. Additionally, any fees associated with permits required for road opening by the Connecticut Department of Transportation and Municipalities shall be paid under the respective replacement bid item and not under any allowance item.

3.03 FLAGGER TRAFFIC CONTROL ALLOWANCE (ITEM 1G)

A. General

1. The Flagger Traffic Control Allowance will apply only to the labor for traffic control flaggers for the direction of traffic for this Contract per Manual on Uniform Traffic Control Devices. Flaggers can only be used when permitted by the agency with jurisdiction of the roadway or when uniformed police are not available, when provided with the required advanced notification.

B. Measurement

1. The Contractor will be reimbursed for costs for traffic control flaggers for the project as invoiced.

C. Payment

1. Payment for Traffic Control Flaggers to direct traffic will be made based on the actual time on site and applicable Town Ordinances. No markup will be allowed by the Contractor. The allowance price established in the Bid Form is for bidding purposes only, and the amount paid for Flagger Traffic Control may differ from this amount.
 - a. All other costs associated with traffic control for this Contract, including traffic control devices, barriers, signage, flaggers, vehicles, equipment, personnel, and administrative costs, shall be paid separately, under the respective replacement bid items and not under any allowance item.
 - b. Additionally, any fees associated with permits required for road opening or street closures by the Connecticut Department of Transportation and Municipalities shall be paid under the respective replacement bid item and not under any allowance item.

3.04 UTILITY PROVISION ALLOWANCE (ITEM 1H)

A. General

1. The Utility Provision Allowance will apply only to reimburse the Contractor for charges imposed by utilities to protect their existing infrastructure, such as utility poles and underground mains or ducts.

B. Measurement

1. The Contractor will be reimbursed for costs invoiced by the utility.

C. Payment

1. Payment for Utility Provisions required to protect existing infrastructure based on the actual time on site and requirements of the utilities. No markup will be allowed by the Contractor. The allowance price established in the Bid Form is for bidding purposes only, and the amount paid for Utility Provisions may differ from this amount.
 - a. All other costs associated with Utility Provisions for this Contract, including Contractor's vehicles, equipment, personnel, and administrative costs, shall be paid

separately, under the respective replacement bid items and not under any allowance item.

3.05 PRIVATE SIDE BID ITEMS (ITEMS 2A.1-2C.2)

A. General

1. Replacement Items

- a. Trenchless or other approved means of lead water service line replacement which may include, replacement of the private side only service line (Item 2A.1), replacement of the private side portion of a full replacement (Item 2A.2), and replacing, furnishing and installing all required ball valves, adapters, reducers, fittings, flare adapters (before water meter), pressure reducing valves, backflow devices, and appurtenances of the necessary size as required by Connecticut Plumbing Code upstream of the water meter. Work includes testing for current and if water line is used for grounding, bypass with a temporary bonding jumper. All replacements shall include mobilization (sanitary facilities, insurance, temporary construction facilities, construction vehicle parking and storage, drywall restoration, bonds, permit acquisition, labor, project coordination, control of work, project signs, coordination with homeowner, property residents, tenants, and inspectors, scheduling, notifications, printing, all data and record document management, and preparation of contract required submittals); removal and disposal excess soil, spoil, rubble, lead pipes and construction debris, vegetation and similar items; stockpiling; bedding and backfill; temporary sidewalk and/or yard restoration; pre and post construction photos, record documents all work required for or incidental to the satisfactory completion of the Work.
- b. Each property listed by the Owner in Appendix A, or the updated list in the database management system at the time of construction, is the target list for construction. Each property with a signed ROE agreement must have a replacement completed or, if material is unknown or no lead is found on either side, a test pit. If the Property Owner rejects participation in the program or does not provide entry after the outreach described in Section 01170, Article 1.18 is performed, Contractor shall perform a test pit to confirm both the public and private side materials.

2. New Curb Box (Item 2C.1)

- a. For when a new curb box is needed, as approved by the Engineer or Owner, when replacing the private-side only (Item 2A.1) at a location where a public side replacement does not occur or at a test pit (Item 1B) location at the direction of the Engineer. A curb stop box is included in all replacements that involve the private side and paid for as part of the Items 1A replacement type.

3. New Curb Stop Valve (Item 2C.2)

- a. For when a new curb stop valve is replaced at the direction of the Engineer or Owner, including when combined with a private-side only service line replacement (Item 2A.1) or at a test pit (Item 1B) location at the direction of the Engineer. A new curb stop valve is included in all replacements that involve the private side and paid for as part of the Items 1A replacement type.

B. Measurement:

1. **(Item 2A.1) Lead Service Line Replacement – Private Side Only** - Measurement will be based on the number of installations completed from the curb stop to water meter within the Work Area and shall be contingent on the submission of comparable pre-construction and post-construction photographs of each installation and complete record documents, including any required permits and fees, for each property. When a private side only replacement (i.e., from curb stop to water meter) is completed at a property, the Contractor shall be paid under Item 2A.1. Replacement includes scheduling all service line replacement appointments with homeowner, residents, or tenants, piping, coring and patching through wall or floor, drywall restoration, ball valves, relocation of meter and all appurtenances as required by the Connecticut Plumbing Code and to make all connections as listed in A above, installation of a temporary bonding jumper if water line is used for grounding, procurement and placement of warning tape, bedding and backfill, temporary sidewalk and/or yard restoration, flushing at the meter or hose bib, leak testing, equipment required for erosion and sediment control, and protection of existing trees. New curb boxes for private-side only replacements will be paid under Item 2C.1 as directed by the Engineer. Full Replacements will not be paid for under this item.
2. **(Item 2A.2) Lead Service Line Replacement – Private Side Portion of a Full Replacement** - Measurement will be based on the number of installations completed from the curb stop to water meter within the Work Area and shall be contingent on the submission of comparable pre-construction and post-construction photographs of each installation and complete record documents, including any required permits and fees, for each property. When a private side only replacement (i.e., from curb stop to water meter) is completed at a property, the Contractor shall be paid under Item 2A.1. Replacement includes scheduling all service line replacement appointments with homeowner, residents, or tenants, piping, coring and patching through wall or floor, drywall restoration, ball valves, relocation of meter and all appurtenances as required by the Connecticut Plumbing Code and to make all connections as listed in A above, installation of a temporary bonding jumper if water line is used for grounding, procurement and placement of warning tape, bedding and backfill, temporary sidewalk and/or yard restoration, flushing at the meter or hose bib, leak testing, equipment required for erosion and sediment control, and protection of existing trees. New curb boxes for private-side only replacements will be paid under Item 2C.1 as directed by the Engineer. Full Replacements will not be paid for under this item.
3. **(Item 2B) Access Not Provided** – Measurement will be based on the number of locations where one of the following occurs:
 - a. Customer misses a scheduled and documented appointment after the Contractor mobilized for the replacement and cannot reschedule for more than 72 hours. A “scheduled and documented appointment” is only when the customer provides written or verbal confirmation of the appointment.
 - b. Customer was home but provided no reasonable work area to access the service line or water meter on the interior of the house after the Contractor mobilized for the replacement.
 - c. Improper grounding or electrical work is identified by the Contractor after mobilizing for the replacement requiring the homeowner to hire an electrician to perform electrical work before the replacement can be completed by the Contractor.

All work claimed under this Item must be documented in writing by the Contractor.

4. **(Item 2C.1) New Curb Box – Private Side Only** - Measurement will be based on the number of curb boxes replaced for private-side only replacements (Item 2A.1) at locations where a public side replacement does not occur and curb boxes replaced during a test pit at a location at the direction of the Engineer (Item 1B).
5. **(Item 2C.2) New Curb Stop Valve– Private Side Only** – Measurement will be based on the number of curb stop valves replaced for private-side only replacements (Item 2A.1) at locations where a public side replacement does not occur and curb stop valves replaced during a test pit at a location at the direction of the Engineer (Item 1B).

C. Payment:

1. Payment for **Item 2A.1 Lead Service Line Replacement – Private Side Only** and **Item 2A.2 Lead Service Line Replacement – Private Side Portion of a Full Replacement** shall be provided once the following components are completed:
 - a. **Administration:** Price and payment shall include, but not be limited to Property Owner outreach attempts to sign the ROE and tracking of attempts, customer coordination, printing and distributing door hangers for notifications of appointments, construction, and disturbances, local agency coordination for permits, inspections and scheduling, pipe material validation through interior inspection, pre-construction photographs, and all other preliminary documentation as required by the Contract.
 - b. **Site Preparation:** Price and payment shall include, but not be limited to temporary traffic control including traffic signage; erosion and sediment control; mobilization (sanitary facilities, insurance, temporary construction facilities, construction vehicle parking and storage, bonds, permit preparation, state roadway inspector when working on state roadways, project coordination, control of work, project signs, scheduling, and preparation and submittal of contract required work plans); test pits that result in a replacement or test pits for the contractors' convenience; cutting existing asphalt and concrete; temporarily support and protection of all existing utilities and structures; all excavation up to depth of 5 feet (including hand, vacuum, rock and boulders and concrete road base excavation) including excavation for both trenchless installation and open-cut installation; excavation support and protection (as required); dewatering and drainage.
 - c. **Service Replacement:** Price and payment shall include, but not be limited to: temporary water for customer (as required); furnishing and installation of water service line (up to and including 2-inches in size) to limits defined in individual bid items by trenchless methods or by open-cut methods when approved by the Engineer, including pipe, all the necessary adapters, couplings, reducers, fittings and appurtenances of the necessary size required to connect to existing piping; coring through the existing foundation or wall regardless of thickness; relocation of the meter and installation of items required to meet the Connecticut Plumbing Code and as shown in the details in Appendix B, patching and waterproofing of the new and abandoned penetrations; flushing as specified, testing of the new service line, placing the service line into service; existing lead water service line and appurtenances

removal, disposal, demolition or abandonment; placement of warning tape; backfill and bedding as shown in Appendix B; compaction and compaction testing; stockpiling. Payment for these items shall include all work required for or incidental to the satisfactory completion of the Items for which payment is not provided under other items in the Bid Form.

- d. **Restoration on Private Side:** Price and payment shall include, but not be limited to GPS coordinates of the curb stop and where the service line enters the house, service application records, closeout documentation including photographs; repairs and cleaning of interior work spaces; drywall restoration; printing and distribution of post-replacement door hangers regarding flushing; loaming and seeding; temporary asphalt, temporary sidewalk and/or yard restoration; concrete testing and all other testing required to complete the project as specified herein; transportation and disposal of excess excavated material, spoil, rubble, concrete, asphalt, vegetation, lead pipes and construction debris, etc. in accordance with all Federal, State and local regulations; including all labor, materials and necessary equipment; removal of erosion and sediment control devices; all work required for or incidental to the satisfactory completion of the Items for which payment is not provided under other items in the Bid Form.
 - e. All items, including restoration, must be fully completed prior to requesting payment in full for Bid Item 2. A payment of 50% can be requested if a service line is installed but the restoration is not yet complete.
- 2. Payment for **Item 2B Access Not Provided** shall be full compensation for partial work described in Bid Items 2A.1 paragraph 1a (administration) and 1b (site preparation). Access shall be determined prior to any test pits or other excavation being performed for private side replacements. If any excavation occurs prior to access being determined, no additional payment for backfilling and restoration will be provided.
 - 3. Payment for **Item 2C.1 New Curb Box** shall be made in full for all private side only replacements (Item 2A.1). Payment shall also be made in full if a curb box is replaced during a test pit when the curb box is considered in need of replacement by the Engineer.
 - 4. Payment for **Item 2C.2 New Curb Stop Valve** shall be made in full for all private side only replacements (Item 2A.1). Payment shall also be made in full if a curb stop valve is replaced during a test pit when the curb stop valve is considered in need of replacement by the Engineer.

3.06 PITCHER FILTERS AND REPLACEMENT CARTRIDGES (ITEM 3)

A. General:

- 1. **Pitcher Filters and Replacement Cartridges** in accordance with Specification 02663 Article 2.10 shall be provided to all locations with a lead service line replacement in accordance with the following:

Single-family home = 1 pitcher filter and filter cartridges(s).

Multi-family home = 1 pitcher filter and filter cartridge(s) per unit.

Commercial = 1 pitcher filter and filter cartridge(s).

If filter cartridge lifespan is less than a 6 month supply, provide additional filter cartridges for a minimum total 6 months of filter supply.

B. Measurement:

1. **Pitcher Filters and Replacement Cartridges** – Measurement will be based on the number of pitcher filters (including 6 month supply of filter cartridges, installation instructions, filter use and flushing instructions, health effects flyer, and sample offer flyer) delivered to each unit per the schedule in Article 3.07.A.1 at the time of replacement, including tracking delivery in eBuilder with photographic documentation.

C. Payment:

1. Payment for **Pitcher Filters and Replacement Cartridges** shall be made in full for pitcher filters with 6 months of filter cartridge capacity, installation instructions, filter use and flushing instructions, health effects flyer, and sample offer flyer distributed. All work associated with ordering, storing, distributing, and tracking confirmation of distribution shall be included under this bid item.

3.07 NEW FULL SERVICE LINE FOR UNIQUE LOCATIONS (ITEM 4)

A. General:

1. **New Full Service Line for Combined Service Line Locations (Item 4)** – will be used for properties that have been identified within the project area that are currently served by a galvanized line from another building or that otherwise do not have an individual service line and curb stop for sole use of the building being served. This item shall include the design of a new service line configuration, trenchless or other approved means to install the new service connection and installation and/or replacement of all necessary appurtenances, and adjustment of the meter location inside the building as necessary based on the new service line alignment. Installation of the service line through a different part of the building requires prior approval by the Owner and Engineer. All new installations shall include mobilization, (sanitary facilities, insurance, temporary construction facilities, construction vehicle parking and storage, bonds, permit acquisition and fees, labor, project coordination, control of work, project signs, coordination with homeowner and inspectors, scheduling, notifications, printing, all data and record document management, and preparation of contract required submittals); removal and disposal of excess soil, spoil, rubble, lead pipes and construction debris, vegetation and similar items; soil sampling and testing, all labor, materials, new corporation stop, temporary roadway, temporary sidewalk, and/or yard restoration, equipment required for erosion and sediment control, and protection of existing trees as approved by the Engineer; all work required for or incidental to the satisfactory completion of the Work.
2. Properties 57 Pomfret, 61-63 Pomfret Street, 65-67 Pomfret Street, 69-71 Pomfret Street, and 73 Pomfret Street will need a new private water main to provide the service connections to the homes. This allowance includes the design of the water main configuration, installation of the new water main, and all necessary appurtenances.

Appendix D includes site layouts with estimated service line alignments for properties that will require a new full service line installation.

3. Each property marked for replacement is included in Appendix D, or the updated list in the database management system at the time of construction, is included in the work for Item 4. Each property on this list with a signed ROE agreement must have a new installation and/or replacement completed or, if material is unknown or no lead is found on either side, a test pit. If the Property Owner rejects participation in the program or does not provide entry after the outreach described in Section 01170, Article 1.18 is performed, Contractor shall perform a test pit to confirm both the public and private side materials.

B. Measurement:

1. **(Item 4) New Full Service Line for Combined Service Line Locations** - Measurement shall be based on the Contractor's time and material costs for designing and installing new full service lines at locations previously served via a connection to another building, as approved by Engineer. Contractor shall prepare a preliminary plan, design sketch, and cost estimate for each location, notify the Engineer's representative prior to proceeding with time and material work and shall provide time and material ticket to the Engineer's representative the day the work is performed. No time and material tickets will be accepted if not provided within seven (7) days of work being performed.

C. Payment:

1. Full payment for **Item 4 New Full Service Line for Combined Service Line Locations** will be made on the actual amount of work done approved and measured by the Engineer. Installation of new full service lines shall include but not be limited to labor, materials and equipment required for installation of new service lines utilizing the methods allowed herein and shall be full compensation for all work related to cutting existing pavement and excavation; excavation support and protection (as required); dewatering and drainage; installation of pipelines as directed by the Engineer; backfilling with native soil; compaction; restoring the trench surface to grade; restoring all physical features to grade including furnishing, installing, placing, compacting and sweeping; dense-graded base course, formwork, curing, concrete sidewalks, driveway aprons, concrete curb, initial paving, roadway concrete subbase, resetting or replacing of existing slate sidewalks and granite curbs, asphalt or concrete stamping, resetting or replacement of brick or rock pavers, pavement markings; painting, patching; cleaning, chlorinating; and all other incidentals to the satisfactory completion of this Item.
2. Services shall be based on the Contractor's time and material costs for performing the work as approved by Engineer.
3. Only work authorized in writing by the Engineer will be allowed to be reimbursed under this item.

3.08 FILL MATERIALS (ITEMS S-1A - S-1C)

A. General:

1. **Imported Common Fill (Item S-1A)** - will be utilized for backfill of miscellaneous work at the direction of the Owner or Engineer. This item shall include handling, transportation placing of common fill where the native hazardous material or unsuitable material is being replaced by common fill.
2. **Crushed Stone (Item S-1B) and Flowable Fill (Item S-1C)** - will be installed on an as-needed basis for miscellaneous work at the direction of the Owner or Engineer throughout the course of the project.

B. Measurement:

1. **(Item S-1A) Common Fill and (Item S-1B) Crushed Stone** - Measurement will be based on cubic yards installed as measured in place by the Engineer and as allowable per the maximum trench payment width for trenches as indicated in the Contract Documents or the actual amount placed, whichever is less, if and when directed. Under no circumstances will measurement for payment under this item be made unless specifically approved by the Engineer to replace unsuitable soil.
2. **(Item S-1C) Flowable Fill** - Measurement will be based on cubic yards installed in place as measured by the Engineer, if and when directed. Under no circumstances will measurement for payment under this item be made unless specifically approved by the Engineer. If used in trenches, the payment limits shall not exceed the trench widths as indicated in the Contract Documents or the actual amount placed, whichever is less.

C. Payment:

1. Payment for **Items (Item S-1A) Imported Common Fill and (Item S-1B) Crushed Stone** shall be as follows - Price and payment shall be full compensation for, but not limited to: purchasing, transporting, testing, washing, placement, compaction, loading, unloading, reloading; including all labor, materials and necessary equipment; all work required for or incidental to the satisfactory completion of the Items for which payment is not provided under other items in the Bid Form. Backfill materials related to service line replacements shall be paid for under the respective replacement items.
2. Payment of **Item S-1C Flowable Fill** shall be as follows- Price and payment shall be full compensation for, but not limited to: purchasing, transporting, testing, pumping, placement, finishing, including all labor, materials and necessary equipment; all work required for or incidental to the satisfactory completion of the Items for which payment is not provided under other items in the Bid Form.

3.09 MISCELLANEOUS CONCRETE (ITEM S-3)

A. General:

1. **Miscellaneous Concrete** - The installation of miscellaneous concrete will be performed on an as-needed basis as directed by the Engineer throughout the course of the project. Miscellaneous concrete shall contain no wire or steel reinforcement. In general, the installation of miscellaneous concrete will be undertaken whenever any construction work is required as a result of service line replacement, curb stop installation, or otherwise deemed necessary in the field.

B. Measurement:

1. **(Item S-3) Miscellaneous Concrete** - Measurement will be based on cubic yards installed as measured by the Engineer, if and when directed and as not included already in another bid item.

C. Payment:

1. Payment for **Item S-3 Miscellaneous Concrete** shall be as follows - Price and payment shall be full compensation for, but not limited to: formwork, purchasing and transporting all concrete used for the Work; all labor, material (including expansion joints) and equipment required to properly place, prepare, finish and protect the concrete, concrete testing; and all other incidentals to the Work for which separate payment is not provided under other items in the Bid Form. Concrete shown on the Details in Appendix B or as listed in other bid items will not be paid for under this bid item.

3.10 MISCELLANEOUS WORK AT DIRECTION OF THE OWNER (ITEM S-4)

A. Item Description:

1. This item is intended to pay the Contractor for performing emergency repairs of water, sewer utilities and services for correction of any unforeseen conditions as discovered during the performance of the work as directed and approved by the Engineer or Owner. Utility repairs resulting from activities related to the Contractor's convenience or negligence will not be paid for under this item and will be paid for by the Contractor at no additional cost to the Owner.

B. Measurement:

1. **(Item S-4) Miscellaneous Work at Direction of the Owner** - Measurement shall be based on the Contractor's time and material costs for performing emergency repairs of water and sewer utilities, as approved by Engineer. Contractor shall notify the Engineer's representative prior to proceeding with time and material work and shall provide time and material ticket to the Engineer's representative the day the work is performed. No time and material tickets will be accepted if not provided within 48 hours of work being performed.

C. Payment:

1. Payment for **Item S-4 Miscellaneous Work at Direction of the Owner** will be made on the actual amount of work done approved and measured by the Engineer. Emergency repairs of water and sewer utilities shall include but not be limited labor, materials and equipment required for repair and replacement of water and sewer utilities and services utilizing the methods allowed herein and shall be full compensation for all work related to cutting existing pavement and excavation; excavation support and protection (as required); dewatering and drainage; repair of utility pipelines as directed by the Engineer; backfilling with native soil; compaction; restoring the trench surface to grade; restoring all physical features to grade including furnishing, installing, placing, compacting and sweeping; dense-graded base course, formwork, curing, concrete sidewalks, driveway aprons, concrete curb, initial paving, roadway concrete subbase, resetting or replacing of existing slate sidewalks and granite curbs, asphalt or concrete stamping, resetting or replacement of

brick or rock pavers, pavement markings; painting, patching; cleaning, chlorinating; and all other incidentals to the satisfactory completion of this Item.

2. Services shall be based on the Contractor's time and material costs for performing the work as approved by Engineer.
3. Only work authorized in writing by the Engineer will be allowed to be reimbursed under this item.

END OF SECTION

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SECTION 01026
APPLICATION FOR PAYMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit Applications for Payment to the Engineer in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor.
- B. The accepted Schedule of Values, Section 01370, shall be used as the basis for the Contractor's Application for Payment.
- C. Submit Applications for Payment with side-by-side photographic documentation of each replacement for pre-construction and post-construction in PDF format as specified in Photographic Documentation, Section 01322.

1.02 RELATED WORK

- A. Standard General Conditions of the Construction Contract are included in Section 00720.
- B. Schedule of Values are included in Section 01370.
- C. Contract Closeout is included in Section 01700.

1.03 SUBMITTALS

- A. Submit, in accordance with Section 01300, applications typed on forms provided by the Owner, Application for Payment, with itemized data typed on 8-1/2-inch by 11-inch or 8-1/2-inch by 14-inch white paper continuation sheets.
- B. Provide itemized data on a continuation sheet.
 - 1. Format, schedules, line items, and values: Those of the Schedule of Values accepted by the Engineer.

1.04 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Application Form:
 - 1. Fill in the required information, including that for Change Orders executed prior to the date of submittal of application.
 - 2. Fill in the summary of dollar values to agree with respective totals indicated on continuation sheets.
 - 3. Application for Payment shall include a table that includes every bid item that was completed at every address. Contractor shall provide this table in a searchable Excel format with the following information:
 - a. Contract Number.
 - b. Address.

- c. Date Work Completed.
 - d. Unit Item Number.
 - e. Unit Description.
 - f. Unit of Measurement.
 - g. Quantity.
 - h. Unit Price.
 - i. Total Price.
4. Provide Application for Payment in PDF format along with the source file used to generate the PDF, in an Excel spreadsheet.
 5. Execute certification with the signature of a responsible officer of Contract firm.

B. Continuation Sheets:

1. Fill in the total list of all scheduled component items of Work, with item number and scheduled dollar value for each item.
2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
 - a. Round off values to the nearest dollar, or as specified for Schedule of Values.
3. List each Change Order executed prior to the date of submission, at the end of the continuation sheets.
 - a. List by Change Order Number and description, as for an original component item of work.
4. To receive approval for payment on component material stored on site, submit copies of the original paid invoices with the application for payment.

1.05 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. The following must be provided before the property location is listed on the pay application. Full payment will not be provided until these items are submitted in accordance with Section 01720.
 1. Road opening permits.
 2. Inland Wetland Permit.
 3. Pre-/Post-construction photographic documentation.
- B. Submit suitable information, with a cover letter identifying.
 1. Project name and location.
 2. Application number and date.
 3. Certified payroll.

4. Detailed list of enclosures with property addresses and type of replacement performed
 5. For stored products:
 - a. Item number and identification as shown on the application
 - b. Description of specific material
 - C. Submit one copy of data and cover letter for each copy of the application.
 - D. As a prerequisite for payment, submit a "Surety Acknowledgement of Payment Request" letter showing the amount of progress payment which the Contractor is requesting.
 - E. Quantities in pay applications will be checked with the information stored in the project data management system and Owner records. No payment will be made to Contractor unless all record information for every installed service line matches between the project data management system database, the Contractor's pay application, and the Engineer's measured quantities.
- 1.06 PREPARATION OF APPLICATION FOR FINAL PAYMENT
- A. Fill in the Application form as specified for progress payments.
 - B. Use a continuation sheet for presenting the final statement of accounting as specified in Section 01700.
 - C. Submit all Project Record Documents in accordance with Section 01720.
- 1.07 SUBMITTAL PROCEDURE
- A. Submit Applications for Payment to the Engineer at times stipulated in the Agreement.
 - B. Number: Five copies of each Application.
 - C. When the Engineer finds Application properly completed and correct, he/she will transmit certificate for payment to Owner, with a copy to Contractor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

FROM ALA DOCUMENT G702

DISTRIBUTION TO:	
Owner:	X
Project Manager:	X
Contractor:	X
Other:	

PROJECT NAME: Providence Water - Trinity Square Lead Service Line Replacement Project
Project No. 27002 & 20173

CHANGE ORDER SUMMARY

CHANGE ORDERS approved in previous months by Owner =	ADDITIONS	DEDUCTIONS
TOTAL	\$ -	\$ -

Approved this Month		
Number	Date App'd	
Net Change by CHANGE ORDERS (COs) =		\$ -

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

CONTRACTOR: Contractor

State of: _____
County of: _____
Subscribed & sworn to before me this _____ day of _____
Notary Public: _____ My Commission expires: _____

State of: _____
County of: _____
Subscribed & sworn to before me this _____ day of _____
Notary Public: _____ My Commission expires: _____

FROM AIA DOCUMENT G703

INVOICE NO.: 1
INVOICE DATE: X/X/202X
PERIOD TO: X/X/202X
PROJECT NO.: 27002 & 21073

[illegible]

FROM AIA DOCUMENT G703

INVOICE NO.: 1
INVOICE DATE: X/X/202X
PERIOD TO: X/X/202X
PROJECT NO.: 27002 & 21073

[illegible]

Lead Service Line Replacement Program
Town of Putnam Water Pollution Control Authority

Application for Payment
01026 - 6

SECTION 01038 REQUESTS FOR INFORMATION

PART 1 GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. This Section specifies the general methods and requirements of Requests for Information (RFIs).

1.02 RELATED WORK

- A. Additional requirements may be specified in the General Conditions.
- B. Submittals are included in Section 01300a.
- C. Special Provisions are included in Section 01170.
- D. Project Record Documents are included in Section 01720.

1.03 REQUESTS FOR INFORMATION

- A. When the Contractor believes that additional information or clarification of a contract requirement is needed, Contractor may initiate a Request for Information via the e-Builder software.
- B. RFIs may relate to Technical matters or Administrative matters. The RFI process shall be limited to the clarification of technical and/or administrative matters. While the response to an RFI might lead to a change in the contract scope, cost or time, RFIs are not a substitute for the notification requirements stipulated in the General Conditions.
- C. A response to an RFI may authorize minor changes to the contract consistent with the terms of the contract related to the responsibilities and limitations of authority of the Engineer.
- D. A response to an RFI is not an authorization to perform any additional work that would require a change order or written amendment to the contract. If the Contractor believes the response to an RFI requires a change to the contract, Contractor shall promptly provide written notice to the Owner and Engineer in accordance with the General Conditions.
- E. RFIs are not a substitute for the Submittals process specified elsewhere.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 ORIGINATION

- A. Originate RFIs using the form appended to this Section.
 - 1. RFIs shall be numbered consecutively. In the event that an answered RFI results in a follow-up inquiry, the follow-up shall maintain the same number as the original, appended with a suffix.

2. Include Specification Section(s), Contract Maps(s), or detail(s) for which information is requested.
 3. Attach drawings, sketches, photographs or other relevant information.
 4. If the question concerns an interpretation of the Contract Documents, enter the Contractor's interpretation.
 5. Indicate the date by which the Contractor requests a reply.
 6. Sign the upper portion of the form.
- B. RFIs may not be submitted by subcontractors or suppliers. When a subcontractor or supplier generates a request for information or clarification to the Contractor, incorporate such requests into the required format, assign the next number, and sign.
- C. Maintain a log of all RFIs including the date originated, date delivered, and date answered.

3.02 PROCESSING

- A. Submit all RFIs to the Engineer for processing.
- B. Technical RFIs will generally be reviewed and answered by the respective discipline engineer or architect.
- C. Administrative RFIs will generally be reviewed and answered by the Engineer in consultation with the Owner.
- D. The Engineer will generally respond to RFIs within fourteen calendar days of receipt – depending on the complexity of the inquiry.

3.03 RESPONSES

- A. If the RFI contains sufficient clarity, the Engineer will insert a response in the lower portion of the RFI form, sign and date the response; and, return the completed form to the Contractor.
- B. If the RFI does not contain sufficient clarity, the Engineer may request additional information from the Contractor.
- C. The Engineer will distribute copies to the Owner and project files.
- D. The Engineer will maintain a log of all RFIs including the date received, and date returned to Contractor.

3.04 RECORD INFORMATION

- A. Include all clarifications obtained through the RFI process into the record information in accordance with Section 01720.

3.05 ATTACHMENTS

- A. Standard RFI Form.

Attachment A Request for Information

Project Name:		
Contract Number.:		
Contractor:		RFI No.:
		Date:
Subject:		
Spec Section:	Drawing/Map:	Detail:

QUESTION:	
<p>If the above question concerns an interpretation of the Contract Documents, the Contractor's interpretation is:</p>	
Please Respond by This Date:	
Submitted by Contractor:	Date:
Received by (CDM Smith):	Date:

RESPONSE:	
By:	Date:
Distribution: Contractor, Owner, File, Field, RFI Notebook	

END OF SECTION

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SECTION 01045
CUTTING, CORING AND PATCHING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section covers the cutting, coring, rough and finished patching of holes and openings. Holes and opening made in existing construction, or in parts of new construction. Procedures for cutting and patching will be the same for either condition.
- B. All cutting, coring, and rough patching shall be performed by the Contractor. Finish patching shall be the responsibility of the Contractor.
- C. Provide all cutting, fitting and patching, including attendant excavation and backfill, required to complete the work or to:
 - 1. Make its several parts fit together properly.
 - 2. Uncover portions of the work to provide for installation of ill-timed or improperly scheduled work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to requirements of Contract Documents.
 - 5. Provide penetrations of structural surfaces and materials for installation of piping.
 - 6. Provide penetrations of non-structural surfaces for installation of piping. The determination of what is a nonstructural surface or material shall be made by the Engineer.
 - 7. Remove, install, or relocate materials.

1.02 RELATED WORK

- A. Summary of Work is included in Section 01010.
- B. Pipe penetrations and assemblies are included in Section 01180.
- C. Site work is included in Division 02.
- D. Concrete is included in Division 03.

1.03 SUBMITTALS

- A. Submit, in accordance with Section 01300, a written request prior to executing any cutting or alteration which is not shown on details which affects or requires:
 - 1. Work of the Owner or "Customer."

- B. The request shall include:
 - 1. Identification of the project.
 - 2. Effect on work of Owner or any separate contractor, or on the structural or weatherproof integrity of the project.
 - 3. Description of proposed work:
 - a. Method and extent of cutting, patching, alteration, or excavation.
 - b. Trades who will execute the work.
 - c. Products proposed to be used.
 - d. The extent of refinishing to be done.
 - 4. Confirmation of coordination with any separate contractor whose work will be affected.
 - 5. Related shutdown requests if required to do the work.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Comply with specifications and standards for each specific product involved. Where there is no equivalent specification, notify the Engineer who will provide a specification for the materials to be used.
- B. Grout for patching shall be as specified in Section 01180.
- C. Materials for finish patching shall be equal to those of adjacent construction. Where existing materials are no longer available, use materials with equivalent properties and that will provide the same appearance. The materials are to be approved by the Engineer prior to their use.

PART 3 EXECUTION

3.01 INSPECTION

- A. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- B. After uncovering work, inspect conditions affecting installation of products, or performance of work.
- C. Report unsatisfactory or questionable conditions to the Engineer; do not proceed with work until the Engineer has provided further instructions.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of the affected portion of work.
- B. Protect surrounding materials and equipment prior to starting work.

- C. Contain and control cooling liquids and slurry produced by the cutting and coring operations.
- D. When the cutting or coring results in the structure or equipment being exposed to the environment, the Contractor shall provide adequate weather protection.
- E. Provide dewatering for excavation work in accordance with Section 02140.

3.03 PERFORMANCE

- A. Execute cutting and demolition by methods which will prevent damage to other work and will provide proper surfaces to receive installation.
- B. Execute excavating and backfilling by methods which will prevent settlement or damage to other work. When excavating in close proximity to piping or other items subject to damage, use hand excavation.
- C. All equipment and workplace safety shall conform to OSHA standards and specifications pertaining to plugs, noise and fume pollution, wiring and maintenance.
- D. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- E. Restore work which has been cut or removed; install new products to provide completed work in accordance with the requirements of Contract Documents.
- F. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes:
- G. Remove rubble and excess patching materials from the premises.

3.04 CORING

- A. All coring shall be performed in such a manner as to limit the extent of patching. Locate the rebar before coring to minimize cut-throughs.
- B. Coring shall be performed with an approved non-impact rotary tool with diamond core drills.
- C. Size of holes shall be suitable for pipe, packing, patching, waterproofing or mechanical seals to be installed.
- D. All holes cut through concrete, masonry and rock walls, slabs or arches shall be core drilled unless otherwise approved. All work shall be performed by personnel skilled in this type of work.
- E. If holes are cored through floor slabs, they shall be drilled from below where possible. If holes are drilled from above, provide protection and containment below the area being drilled to catch the plug and contain liquid and slurry.
- F. Every wall penetration into buildings must be cored regardless of size of hole or thickness of foundation. Foundations are assumed to be a maximum of 16" thick. For foundations thicker than 16", Contractor will be paid with time and materials under Miscellaneous Work.

- G. Any chipping used for wall penetrations without approval from the Engineer will not be paid for.

3.05 CUTTING

- A. All cutting shall be performed in such a manner as to limit the extent of patching.
- B. Cutting shall be performed with a concrete saw, and diamond saw blades of the proper size.
- C. Provide for control of slurry generated by sawing operation on both sides of the wall and from below if cutting a floor.
- D. When cutting a reinforced concrete wall or floor, the cutting shall be done so as not to damage the bond between the concrete and reinforcing steel left in structure. Cut shall be made so that steel neither protrudes or is recessed from the face of the cut.
- E. Adequate bracing of the area to be cut shall be installed prior to the start of cutting. Check area during sawing operations for partial cracking and provide additional bracing as required to prevent a partial release of the cut area during sawing operations.
- F. Provide equipment of adequate size to remove cut panel.
- G. Saw cut concrete and masonry prior to breaking out sections.
- H. Install work at such time as to require the minimum amount of cutting and patching.

3.06 PROTECTION

- A. Provide devices and methods to protect other portions of the project from damage.
- B. Provide protection from elements for that portion of the project which may be exposed by cutting and patching work.
- C. Maintain excavations free from water.

3.07 PATCHING

- A. Rough patching shall be such as to bring the cut or cored area flush with existing construction unless otherwise shown.
- B. Finish patching shall match existing surfaces as approved.
- C. Patching shall be of the same kind and quality of material as was removed.
- D. The completed patching work shall restore the surface to its original appearance or better.
- E. Patching of waterproofed surfaces shall render the area of the patching completely waterproofed to include the joint between the existing material and the patch.
- F. Slurry or tailings resulting from coring or cutting operations shall be contained and vacuumed or otherwise removed from the area following drilling or cut.

- G. Equipment shall be protected against mechanical and water damage during cutting and patching. Provide protective covers or use other means to protect equipment that is at risk of damage from the cutting and patching.
- H. Provide protection for existing equipment, utilities and critical areas against water or other damage caused by drilling operation.

END OF SECTION

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SECTION 01046 CONTROL OF WORK

PART 1 GENERAL

1.01 CONSTRUCTION EQUIPMENT

- A. Furnish equipment which will be efficient, appropriate and large enough to secure a satisfactory quality of work and a rate of progress which will ensure the completion of the work within the Contract Time. If at any time such plan appears to the Engineer to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, he/she may order the Contractor to increase the efficiency, change the character or increase the equipment and the Contractor shall conform to such order. Failure of the Engineer to give such order shall in no way relieve the Contractor of his/her obligations to secure the quality of the work and rate of progress required.

1.02 PRIVATE LAND

- A. Do not enter or occupy private land outside of easements, except by written permission of the Customer. See requirements for the Right of Entry (ROE) and Release Form for Galvanized Service Line Replacement in Section 01170.

1.03 EXISTING WATER DISTRIBUTION SYSTEM

- A. If approved by Engineer and Owner, Notify the Owner, Engineer and fire department 72 hours in advance of any requirement for isolating a section of water mains, so that water customers may be notified, and the necessary arrangements may be made, which may include a fire watch by the fire department.
- B. The Owner will perform all shutdowns. The Contractor shall not turn any valves in the system unless approved by the Owner in writing.
- C. If water or fire services for a single Customer or several customers are to be interrupted for an extended period (i.e., longer than 8 hours), provide temporary water service to all water users as required through new temporary piping and hoses. Temporary water service piping shall be connected such that it bypasses all of the lead piping and does not run the water through any of the existing lead water service line. Temporary piping and hoses shall meet NSF 61 standards for potable water; hoses shall be connected to the water meter at every impacted location, providing potable water. The inconvenience to water users shall be kept at a minimum.
 - 1. Owner and/or Engineer approval is required before implementing temporary bypass piping. If temporary bypass piping is approved during freezing temperatures, freeze protection must be provided and implemented.
 - 2. No property shall be left on bypass for more than 24 hours. If a property is put on temporary bypass, the Contractor shall go back and complete the property the next day.
- D. The Owner and Engineer reserve the right to review and approve the Contractor's proposed use of any temporary bypass piping and hoses. If for any reason an existing fire hydrant is taken out of service, a temporary hydrant must be provided and the Town Fire Department must be notified immediately. The safety and integrity of the water system are of prime importance. All

work shall be completed with all water mains live and in service as specified in Section 02663 unless necessitated by special circumstances that are reviewed and approved by the Engineer.

- E. If temporary hoses are needed and only if approved by the Engineer, the Contractor is required to submit a daily log of all addresses where temporary services have been installed or removed. All temporary hoses shall be $\frac{3}{4}$ -inch minimum diameter and shall be capable of withstanding at least 1.5 times the normal working pressure. All hoses that are to supply potable water to buildings are to be NSF 61 and/or FDA approved for contact with drinking water. Hoses shall be installed in a safe location, shall not be considered a tripping hazard by the Owner or Engineer and shall not block any walkways, driveways, or access to homes. During the winter months, freeze protection shall be provided.
- F. Construction Sequence and Special Work Requirements are as specified in Section 01014.

1.04 WATER SERVICE LINE LOCATIONS

- A. The Contractor shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing water services, drain lines, gas, cable, fiber optic, sewers, etc.). The location of water service line as provided by the Owner will be determined from service cards and service maps that represent the existing conditions at the time of the original installation and not guaranteed to be accurate or reflect current conditions.
- B. All mark outs of utilities shall be considered by the Contractor as the approximate location for the purpose of damage prevention. The Contractor shall be solely responsible for employing prudent techniques to determine the precise position of the water distribution system underground facility for connection purposes. The cost for this work shall be included in Bid Items 1A, 1B, and 2A where applicable. The Contractor will not be compensated for any additional costs to locate the water line if the water department markout/records are not accurate.
- C. New service line replacement piping shall be located substantially close to the existing locations of the lead service lines; however, the Engineer reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or utilities or for other reasons. Where fittings or connections are noted in details, such notation is for the Contractor's convenience and does not relieve him/her from laying and jointing different or additional items where required.

1.05 TRENCHLESS

- A. All new water service lines shall be constructed via trenchless methods to minimize private property restoration unless otherwise approved by the Engineer for specific properties.
- B. Trenchless installation shall include but not be limited to Utility Impact Moling or Pipe Pulling.
 - 1. All trenchless work shall be done at a minimum of 4-feet below surface unless the existing water service line is shallower.
 - 2. Make every effort to minimize impact to existing underground utilities and Contractor shall report any utilities struck or damaged to Owner and Engineer.

3. Launch pits shall be large enough to accommodate the operator and tools for alignment. All excavation specifications shall be followed in the construction of the launch and recovery pits.
 4. If a “tool” is lost, it shall be recovered as soon as possible at the Contractor’s expense.
- C. Obtain approval from the Engineer to install the entire new service line, or portions of the new line, utilizing a method other than a trenchless method. If a service line or portion of the new service line is installed via open-cut trench due to site conditions, failure of trenchless methods, or other approved reasons, payment shall be under the same bid item as if the service line was installed via trenchless methods, including all restoration requirements as specified.

1.06 OPEN EXCAVATION

- A. If open excavations are used, adequate safeguarding shall include but not limited to temporary barricades, caution signs, lights and other means to prevent accidents to persons and damage to property. The Contractor shall, at his/her own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workers. Bridges provided for access during construction shall be removed when no longer required. The length or size of excavation will be controlled by the particular surrounding conditions but shall always be confined to the limits prescribed by the Engineer. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, the Engineer may require special construction procedures such as limiting the length of the open trench, prohibiting stacking excavated material in the street and requiring that the trench shall not remain open overnight.
- B. Take precautions to prevent injury to the public due to open trenches. All trenches, excavated material, equipment, or other obstacles which could be dangerous to the public shall be well lighted at night. Accordingly, unattended trenches must be covered, barricaded or backfilled.
- C. Where the use of road plates is approved for temporarily securing open excavations in roads, plates shall be spiked and recessed to be flush with the surrounding pavement.

1.07 TEST PITS

- A. If the public and private sides of the service line are both found to be a material other than lead, backfill the excavation and perform the surface restoration in accordance with Section 02221. All restoration shall be completed to the satisfaction of the Engineer. All work associated with the excavation, backfill, and restoration for a service line that is found to not be lead on either side shall be considered a test pit and paid for under Bid Item 1B. See Section 01170 for minimum test pit dimensions.
- B. If the service line is found to be lead or galvanized steel but the replacement is scheduled for a later date, the contractor shall backfill the test pit temporarily in accordance with Section 02221. If a replacement occurs at a later date, the test pit shall be paid for under the replacement bid items, depending on the type of replacement, and a separate payment for the test pit will not be made.
- C. If a test pit is performed at a location not indicated in Appendix A or without the direction of the Owner and Engineer, the test pit will be for the convenience of the Contractor and the Contractor will not be paid under Bid Item 1B.

1.08 MAINTENANCE OF TRAFFIC

- A. Traffic on the affected roads and streets shall be maintained at all times under responsibility of the Contractor. Maintenance of traffic provisions shall be approved in writing by the Engineer, Owner, and the jurisdiction Police Department. All maintenance of traffic and road closures shall be in accordance with all Town of Putnam Highway Department permits. Work on State roads also shall be approved in writing by the Connecticut Department of Transportation (CTDOT). All traffic control devices shall be in accordance with the Manual on Uniform Traffic Control Devices, latest issue.
- B. Unless permission to close a street is received in writing from the Police Department, Engineer and Owner, all construction equipment and excavated material shall be placed so that vehicular and pedestrian traffic may be maintained at all times. If the Contractor's operations cause traffic hazards, he/she shall repair the road surface, provide temporary ways, erect wheel guards or fences, or take other measures for safety satisfactory to the Engineer.
- C. Detours around construction will be subject to permit approval, and approval of the Engineer and Owner. Where detours are permitted, provide all necessary barricades and signs as required to divert the flow of traffic. Provide expedited construction when traffic is detoured.
- D. The Contractor shall be fully responsible for damage or injuries whether or not traffic control officers have been provided.
- E. See Section 01576 for additional requirements for traffic control.

1.09 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the preservation of all public and private property and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his/her expense, to a condition similar or equal to that existing before the damage was done, or he/she shall make good the damage in another manner acceptable to the Engineer.

1.10 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

- A. Assume full responsibility for the protection of all buildings, structures, and utilities, public or private, including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, drains, and electric and telephone cables. Carefully support and protect all such structures and utilities from injury of any kind. All damage resulting from the Contractor's operations shall be repaired at the Contractor's expense. Establish the location and extent of all existing utilities before the commencement of excavation by calling Call Before You Dig 1-800-922-4455 and obtaining a dig ticket. Notify all utility companies and Call Before You Dig in writing at least 72 hours (excluding Saturdays, Sundays and Legal holidays) before excavating or otherwise affecting utilities in any public way or easement. Only Town of Putnam Water Pollution Control Authority personnel may operate Town of Putnam Water Pollution Control Authority valves.
- B. Services to buildings shall be maintained, and all costs or charges resulting from damage thereto shall be paid by the Contractor at no additional cost to the Owner.

- C. Protection and temporary removal and replacement of existing utilities and structures as described in this Section shall be a part of the work under the Contract at no additional cost to the Owner.
- D. Service lines installation shall be worked around all existing underground utilities. Make every effort to install service line in such manner as to avoid utility conflicts. If in the opinion of the Engineer, permanent relocation of a utility is required, the Engineer may direct the Contractor, in writing, to perform the work. Work so ordered will be paid for at the Contract unit prices, if applicable, or as extra work under the General Conditions. If relocation of a privately-owned utility is required, the Owner will notify the Utility to perform the work as expeditiously as possible. The Contractor shall fully cooperate with the Owner and Utility and shall have no claim for the delay due to such relocation.
- E. Coordinate the removal and replacement of traffic loops and signals, as required for the performance of the work, at no additional cost to the Owner.
- F. The Contractor shall bear full responsibility, for obtaining all locations of underground structures and utilities (including existing water services, drain lines, gas, electric, telecommunication, and sewers). All utilities are considered unknown and shall not be considered as differing site conditions.

1.11 WATER FOR CONSTRUCTION PURPOSES

- A. In locations where public water is available, the Contractor may be allowed to use water for construction purposes without charge.
- B. The express approval of the Owner shall be obtained before water is used. Waste of water shall be sufficient cause for withdrawing the privilege of unrestricted use. Hydrants or valves shall only be operated with the approval of the Owner and under the supervision of the Owner's personnel.
- C. If water restrictions are in force, the Contractor shall supply his/her own source of water which shall be acceptable to the Engineer.
- D. When drawing water for construction purposes, use caution at all times to prevent potential contamination of the Owner's water distribution system. Hydrant connections will require a backflow preventer and meter suitably installed to the satisfaction of the Engineer and Owner.
- E. Coordinate with the Owner for the opening and closing of hydrants. Hydrants shall be operated under the supervision of the Owner. All hydrants must be opened and closed SLOWLY to prevent damage.
- F. Supply a working reduced pressure backflow preventer and flow meter on each hydrant utilized during construction. The Contractor shall be responsible for providing all hoses and special fittings needed for utilizing the Owner's water supply. During the shop drawing process, submit information on the hydrant meters and backflow preventer intended for use for construction purposes.
- G. At the end of construction, furnish a tabulation of the total gallons of water utilized during the course of the contract.

- H. The Contractor will be responsible for all damage caused by water which passes through the hydrant meter, whether it is used or wasted. If damage does occur, Contractor shall incur all responsibility and costs for repair of any damage and returning the site to its original condition.

1.12 MAINTENANCE OF FLOW

- A. The Contractor shall at his/her own cost, provide for the flow of drains and watercourses interrupted during the progress of the work, and shall immediately cart away and remove all offensive matter. The entire procedure of maintaining existing flow shall be fully discussed with the Engineer well in advance of the interruption of any flow.

1.13 COOPERATION WITHIN THIS CONTRACT

- A. All firms or persons authorized to perform any work under this Contract shall cooperate with the Contractor and his/her Subcontractors or trades and shall assist in incorporating the work of other trades where necessary or required.

1.14 CLEANUP AND DISPOSAL OF EXCESS MATERIAL

- A. During the course of the work, keep the site of Contractor operations in as clean and neat a condition as is possible. Contractor shall dispose of all residue resulting from the construction work and, at the conclusion of the work, Contractor shall remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures and any other refuse remaining from the construction operations and shall leave the entire site of the work in a neat and orderly condition.
- B. Immediately remove from the site and legally dispose of all service lines and appurtenances replaced under this Contract. At no time shall these materials be stacked along the trench.
- C. In order to prevent environmental pollution arising from the construction activities related to the performance of this Contract, the Contractor and his/her subcontractors shall comply with all applicable Federal, State and local laws and regulations concerning waste material disposal, as well as the specific requirements stated in this Section and elsewhere in the Specifications.
- D. The Contractor is advised that the disposal of excess excavated material in wetlands, stream corridors, and floodplains is strictly prohibited even if the permission of the Owner is obtained. Any violation of this restriction by the Contractor or any person employed by him/her will be brought to the immediate attention of the responsible regulatory agencies, with a request that appropriate action is taken against the offending parties. Therefore, the Contractor will be required to remove the fill at his/her own expense and restore the area impacted.
- E. Dispose of all surplus excavated soil material, including construction debris, boulders, broken pavement, demolished pipe, and other non-soil material.
- F. Before leaving a location, if work was completed inside the home, wipe down the surrounding areas to remove all dust and particles that could have resulted from working on the lead or galvanized pipe. Contractor to take appropriate safety precautions when handling lead dust.

1.15 RESTORATION

- A. Restore all areas to conditions that existed prior to construction. Restoration outside of the pipe trench limits required as a result of the construction activities shall be at the Contractor's own

expense. Restoration within the pipe trench limits shall be included in the appropriate bid items as required in Section 01025. Restoration, including restoration on private property, as specified in Sections 01025 "Measurement and Payment," Section 02576 "Pavement Repair and Resurfacing," and Section 02930 "Loaming and Seeding."

- B. Existing public and private driveways and sidewalks disturbed by the construction shall be replaced to the limits and thicknesses existing prior to construction and as specified in Section 02576 "Pavement Repair and Resurfacing," and Section 02930 "Loaming and Seeding."
- C. Existing signs, lampposts and mailboxes which are damaged by the Contractor or removed by the Contractor during the course of the work shall be reinstalled in a vertical position at the same location from which they were removed. Damaged items shall be replaced with an item equal to or better than the damaged items. A concrete anchor shall be provided as necessary, at no additional cost, to ensure a rigid alignment. Care shall be exercised in the reinstallation of all items to prevent damage to the newly installed pipelines.
- D. Existing concrete, bituminous, timber, granite or other material curbing shall be protected. If necessary, curbing shall be removed and replaced after backfilling. Curbing which is damaged during construction shall be replaced with curbing of equal quality and dimension. Granite curbing removed and reset shall conform to the local municipality's standards. Joints between sections shall be expansion type as required. Bituminous berms shall conform to the Owner's Standards.
- E. Restoration of any areas on private property disturbed by construction is as specified in Sections 02576 "Pavement Repair and Resurfacing," and 02930 "Loaming and Seeding."

1.16 PIPE TRENCH WIDTHS

- A. Pipe trench widths referred to herein are the distances separating the vertical planes between which the pipe is to be laid. Maximum trench payment widths for open cut installations are provided on the Details included in Appendix B. In computing the amount of excavation below 5-feet for payment under Item 1C, trench width shall be as specified for maximum trench width.
- B. Where trenchless installation methods are used, the excavation area shall be only what is needed for workers and equipment to perform the installation. Maximum access pit payment sizes for trenchless installations shall be 4 feet by 6 feet in the roadway and 4 feet by 4 feet at the curb stop or anywhere on private property.
- C. Trench and excavation limits are applicable for determining additional payment related to excavation, backfill, and restoration outside of the items included in the replacement bid items.

1.17 SERVICE LINE TRENCH DEPTHS

- A. The top of the trench shall be the ground elevation. The bottom of the trench shall be the invert elevation of the pipe and minimum 6-inches of bedding material as specified in Section 02230 Paragraph 2.01.D.
- B. In computing the amount of excavation below 5-feet for payment under Item 1C, trench depth shall be depth below 5-feet of excavation and trench width shall be as described in Paragraph 1.16.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01110
ENVIRONMENTAL PROTECTION PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Furnish all labor, materials and equipment and perform all work required for the prevention of environmental pollution in conformance with applicable laws and regulations, during and as the result of construction operations under this Contract. For the purpose of this Section, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and/or recreational purposes.
- B. The control of environmental pollution requires consideration of air, water and land, and involves management of noise and solid waste, as well as other pollutants.
- C. Schedule and conduct all work in a manner that will minimize the erosion of soils in the area of the work. Provide erosion control measures such as diversion channels, sedimentation or filtration systems, berms, seeding, mulching or other special surface treatments as are required to prevent silting and muddying of streams, rivers, impoundments, lakes, etc. All erosion control measures shall be in place in an area prior to any construction activity in that area. Specific requirements for erosion and sedimentation controls are specified in Section 02270 "Sedimentation and Erosion Controls".
- D. This Section is intended to ensure that construction is achieved with a minimum of disturbance to the existing ecological balance between a water resource and its surroundings. These are general guidelines. It is the Contractor's responsibility to determine the specific construction techniques to meet these guidelines.
- E. All phases of sedimentation and erosion control shall comply with and be subject to the approval of the Engineer and Owner.
- F. The project excavation areas are located within the public right of way and private property. All excess soils for disposal are assumed to be non hazardous contaminated soil exceeding Connecticut SOIL REMEDIATION STANDARDS. If grossly contaminated material, visible as free product, soil staining, oil sheen or noxious vapors, are encountered during excavation work performed under this Contract, the Contractor shall notify the Owner and Engineer, and the Connecticut Department of Energy and Environmental Protection by contacting the main reporting line at 1-866-337-7745, where and as required by applicable laws and regulations. The Contractor shall be responsible for sampling and analysis, handling, temporary storage, removal, tracking, and disposal of contaminated and hazardous fluids and solids encountered in accordance with the Contract Specifications. All work shall be performed in accordance with all

applicable Federal, State, and local regulations, laws, codes, and ordinances governing the handling, transportation, and disposal of contaminated materials.

G. Section includes:

1. Prohibited Activities.
2. Erosion control.
3. Protection of streams and surface waters.
4. Protection of land resources.
5. Protection of air quality.
6. Noise control.
7. Maintenance of Pollution Control Facilities During Construction.

1.03 QUALITY CONTROL

- A. Comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.
- B. Engineer will notify the Contractor in writing of any non-compliance with the foregoing provisions or of any environmentally objectionable acts and corrective action to be taken. State or local agencies responsible for verification of certain aspects of the environmental protection requirements shall notify the Contractor in writing, through the Engineer, of any non-compliance with State or local requirements. After receipt of such notice from the Engineer or from the regulatory agency through the Engineer, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Owner may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it is later determined that the Contractor was in compliance.

1.04 PREINSTALLATION MEETINGS

- A. Prior to commencement of the work, meet with the Engineer and Owner to develop mutual understandings relative to compliance with these provisions and administration of the environmental pollution control program.

1.05 IMPLEMENTATION

- A. Remove temporary environmental control features, when approved by the Engineer and incorporate permanent control features into the project at the earliest practicable time.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PROHIBITED ACTIVITIES

- A. Do not use procedures, activities, or operations that may adversely impact the natural environment or the public health and safety. Prohibited construction procedures, activities, or operations include but are not limited to:
 - 1. Dumping or disposal of spoil materials, discharging of solid waste deleterious to any stream corridors, any wetlands, any surface waters, or on any public or private property not specified for said purpose.
 - 2. Disposal of debris in any stream corridors, any wetlands, any surface water, or at unspecified locations.
 - 3. Storing construction equipment and vehicles and/or stockpiling construction materials at locations not previously specified and approved by the Owner for said purposes.
 - 4. Dumping, disposing, or stockpiling of any material at any location within the Town of Putnam WPCA service territory without approval.

3.02 EROSION CONTROL

- A. Provide positive means of erosion control such as shallow ditches around construction to carry off surface water. Erosion control measures, such as siltation basins, hay check dams, mulching, jute netting and other equivalent techniques, shall be used as appropriate. Offsite surface water shall be diverted around the site, to a downstream channel ahead of siltation barriers. Flow of surface water into excavated areas shall be prevented. Ditches around construction area shall also be used to carry away water resulting from dewatering of excavated areas. All erosion control measures shall be in place in an area prior to construction activity in that area. Specific requirements for erosion and sedimentation controls are specified in Section 02270 "Sedimentation and Erosion Controls". At the completion of the work, ditches shall be backfilled and the ground surface restored to original condition.
- B. Clearing of vegetation shall be limited to what is necessary for equipment to access the manholes. Roots shall not be removed.

3.03 PROTECTION OF STREAMS AND SURFACE WATERS

- A. Temporary stockpiling of soil materials shall be upgradient of the hay bale barrier to prevent sediments from being transported to adjacent wetland resource areas.
- B. Take all precautions to prevent, or reduce to a minimum, any damage to any stream or surface water from pollution by debris, sediment or other material, or from the manipulation of equipment and/or materials in or near such streams. Water that has been used for washing or processing, that contains oils or sediments that will reduce the quality of the water in the stream, shall not be directly returned to the stream. Divert such waters through a settling basin or filter before being directed into streams or surface waters.
- C. Do not discharge water from dewatering operations directly into any live or intermittent stream, channel, wetlands, surface water or any storm sewer. Water from dewatering operations shall be treated by filtration, settling basins, or other approved method to reduce the amount of sediment contained in the water to allowable levels.
- D. Take all preventative measures to avoid spillage of petroleum products and other pollutants. Maintenance and refueling of vehicles will take place outside of the 100-foot buffer zone to any

resource areas. In the event of any spillage, prompt remedial action shall be taken in accordance with a contingency action plan approved by the Connecticut Department of Energy and Environmental Protection. A supply of “Speedy Dry”, oil absorbent pads, or an approved equivalent, shall be maintained with the construction equipment at all times which shall be used to contain any accidental release of oil or other petroleum products during the field work. Submit two copies of approved contingency plans to the Engineer.

3.04 PROTECTION OF LAND RESOURCES

- A. Restore land resources within the project boundaries and outside the limits of permanent work to a condition, after completion of construction that will appear to be natural and not detract from the appearance of the project. Confine all construction activities to areas shown on the Drawings.
- B. Do not deface, injure, or destroy trees or shrubs, nor remove or cut them without prior approval. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorage unless specifically authorized by the Engineer. Where such special emergency use is permitted, first wrap the trunk with a sufficient thickness of burlap or rags over which softwood cleats shall be tied before any rope, cable, or wire is placed. The Contractor shall in any event be responsible for any damage resulting from such use.
- C. Before beginning operations near them, protect trees that may possibly be defaced, bruised, injured, or otherwise damaged by the construction equipment, dumping or other operations, by placing boards, planks, or poles around them. Monuments and markers shall be protected similarly.
- D. Trees or other landscape features scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to their original condition. The local Tree Warden will decide the method of restoration to be used and whether damaged trees shall be treated and healed or removed and disposed of.
 - 1. All scars made on trees by equipment, construction operations, or by the removal of limbs larger than 1-in in diameter shall be coated as soon as possible with an approved tree wound dressing. All trimming or pruning shall be performed in an approved manner by experienced workmen with saws or pruning shears. Tree trimming with axes will not be permitted.
 - 2. Climbing ropes shall be used where necessary for safety. Trees that are to remain, either within or outside established clearing limits, that are subsequently damaged by the Contractor and are beyond saving in the opinion of the Engineer or local Tree Warden, shall be immediately removed and replaced.
- E. The locations of the Contractor's storage and other construction buildings required temporarily in the performance of the work, shall be cleared portions of the job site or areas to be cleared as shown on the Drawings and approved by the Engineer and shall not be within wetlands or floodplains. The preservation of the landscape shall be an imperative consideration in the selection of all sites and in the construction of buildings.
- F. If the Contractor proposes to construct temporary roads or embankments and excavations for plant and/or work areas, he shall submit the following for approval at least ten days prior to scheduled start of such temporary work.

1. A layout of all temporary roads, excavations, embankments and drainage to be constructed within the work area.
 2. Details of temporary road construction.
 3. Drawings and cross sections of proposed embankments and their foundations, including a description of proposed materials.
 4. A landscaping drawing showing the proposed restoration of the area. Indicate the proposed removal of any trees and shrubs outside the limits of existing clearing area. Indicate locations of guard posts or barriers required to control vehicular traffic and protect trees and shrubs to be maintained undamaged. The Drawing shall provide for the obliteration of construction scars as such and shall provide for a natural appearing final condition of the area. Modification of the Contractor's approved drawings shall be made only with the written approval of the Engineer. No unauthorized road construction, excavation or embankment construction including disposal areas will be permitted.
- G. Remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess of waste materials, or any other vestiges of construction as directed by the Engineer. It is anticipated that excavation, filling and plowing of roadways will be required to restore the area to near natural conditions which will permit the growth of vegetation thereon. This work is only anticipated to impact roadways, the disturbed areas will be prepared as described in Section 02270 "Sedimentation and Erosion Control" and Section 02576 "Pavement Repair and Resurfacing."
- H. All debris and excess material will be disposed of outside wetland or floodplain areas in an environmentally sound manner.
- I. All new trees shall be maintained and guaranteed by the Contractor for not less than one full year from the time of provisional acceptance.
- J. At the end of this period, any tree that is missing, dead, not true to name or size as specified, or not in satisfactory growth, as determined by the Engineer, shall be replaced at no cost to the Owner. In case of any question regarding the condition and satisfactory establishment of a rejected plant, the Engineer may allow such a plant to remain through another complete planting season at which time the rejected tree, if found to be dead, in an unhealthy, or badly impaired condition, shall be replaced at once at no cost to the Owner.
- K. All replacements shall be trees of the same kind and size, and the cost shall be borne by the Contractor except where it can be definitely shown that loss resulted from vandalism or the Owner's failure to maintain planting as instructed.
- L. At the end of the maintenance and guarantee period, and after all necessary corrective work has been completed, an inspection will be made by the Engineer who will certify in writing the final acceptance of the trees.
- 3.05 PROTECTION OF AIR QUALITY
- A. Burning - The use of burning at the project site for the disposal of refuse and debris will not be permitted.
- B. Dust Control - Maintain all excavations, embankment, stockpiles, access roads, plant sites, waste areas, borrow areas and all other work areas within or without the project boundaries free

from dust which could cause the standards for air pollution to be exceeded and which would cause a hazard or nuisance to others.

- C. An approved method of stabilization consisting of sprinkling or other similar methods will be permitted to control dust. The use of petroleum products is prohibited. The use of chlorides may be permitted with approval from the Engineer.
- D. Sprinkling, to be approved, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the Contractor shall have sufficient competent equipment on the job to accomplish this. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs, as determined by the Engineer.

3.06 NOISE CONTROL

- A. Make every effort to minimize noises caused by the construction operations. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with Federal and State regulations.

3.07 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

- A. Maintain all facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created.

END OF SECTION

SECTION 01170 SPECIAL PROVISIONS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 GENERAL OBLIGATIONS OF THE CONTRACTOR

- A. General obligations of the Contractor shall be as set forth in the Contract Documents. Unless special payment is specifically provided in the payment paragraphs of the specifications, all incidental work and expenses in connection with the completion of work under the Contract will be considered a subsidiary obligation of the Contractor, and all such costs shall be included in the appropriate items in the Bid Form in connection with which the costs are incurred.
- B. Obtain and maintain all licenses required to complete the work, including but not limited to plumbing, contractor, municipal contractor licenses.

1.03 SITE INVESTIGATION

- A. Review and become familiar with the conditions existing within the project area, the type of equipment required to perform the work, the character, quality and quantity of the subsurface materials to be encountered insofar as this information is reasonably ascertainable from an inspection of the site(s), as well as from information presented by Contract Maps, Details and Specifications. Failure of the Contractor to become acquainted with the available information will not relieve the Contractor from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The Owner assumes no responsibility for any conclusions or interpretation made by the Contractor on the basis of the information made available by the Owner.

1.04 COORDINATION WITH LOCAL AGENCIES

- A. Coordinate with the local Police Department, public and private schools, Fire Department, Highway Department, Water Pollution Control Authority, the Connecticut Department of Transportation, the Owner, and other City and local agencies as required, and supply the following information.
 - 1. A list of streets and intersections where work will be performed and the schedule (dates and work hours) for the work.
 - 2. Areas and dates where approved detours will be in effect.
 - 3. Immediate notification of any drain, sewer, gas or water main breaks or damage to any other utilities.
- B. Advise local agencies of changes in the work schedule and locations immediately and provide construction progress updates.

- C. Provide the Owner and Engineer with a list of after-hours telephone numbers by which appropriate Contractor personnel may be contacted in the event of an emergency.
- D. Maintain pavement as specified in Section 02576 and provide the Owner with a telephone number where the Contractor may be reached at any time of day or night. Upon notification by the Owner or the Engineer, promptly make such repairs as necessary to paved surfaces.

1.05 EMPLOYEE IDENTIFICATION

- A. The successful bidder is required to submit all names of all employees who will be performing work on behalf of the Owner. The successful bidder is responsible for the professional behavior of their employees and Subcontractor employees while working at the Owner's job site. The Owner reserves the right to remove any Contractor or Subcontractor employees or personnel from the site for any reason at the sole discretion of the Owner.
- B. The Owner reserves the right to deny access to private property to any person, as allowed by law. All of Contractor's employees, and subcontractor's staff and all other people associated with the Work that are to enter private property are required to possess and carry a valid and current Driver's License, Identification Card (issued by the Connecticut Division of Motor Vehicles), or current driver's license from another State in the United States. This identification must include a photograph and signature of the holder.
- C. It is required that all trucks and equipment shall be marked with company logo. Contractor employees and subcontractors shall wear a uniform shirt or vest with the Contractor's logo displayed at all times while working.

1.06 HOURS OF CONSTRUCTION

- A. Work outside of normal hours as specified in Section 01014 may be done upon Customers' request and with approval by the Owner. Notify Owner and Engineer of such work and Contractor shall make all accommodations to meet such Customer requests. All work performed to accommodate the Customer shall be done at no additional cost to Owner; this includes overtime and weekend work.

1.07 PUBLIC UTILITIES

- A. Comply with all state and local requirements related to excavations in public and private property. Compliance shall include the following:
 - 1. Notify public utility companies in writing at least 72 hours (excluding Saturdays, Sundays and legal holidays) but not more than 30 days before excavating in areas where underground utilities (pipes, cables, manholes, etc.) exist.
 - 2. The Contractor shall be responsible for providing the Utility Companies with a schedule of his activities in areas where their utilities exist.
 - 3. Immediately notify utility companies of any damage to their utilities resulting from construction operations and coordinate repair to such utilities with the utility company at no cost to the Owner.

4. Notify Call Before You Dig at 1-800-922-4455 at a minimum of 72 hours before digging, trenching, boring, test pits, backfilling, grading, landscaping, or other earthmoving operations in any public ways, rights of way and easements.
- B. All mark outs of utilities shall be considered by the Contractor as the approximate location for the purpose of damage prevention. The Contractor shall be solely responsible for employing prudent techniques to determine the precise position of the water distribution system underground facility for connection purposes. The cost for this work shall be included in Bid Items 1A, 1B, or 2A. No additional compensation or time extensions will be made for mis-marked utilities.

1.08 PERMITS

- A. The Contractor shall be required to obtain all necessary permits for proper execution of the project. Contractor shall prepare all forms and furnish all drawings required to obtain the permits. Where necessary Owner will sign application forms as the utility owner. Electronic copies of all approved permit shall be submitted to the Engineer. Applications and permits shall be saved individually and categorized by street address, permit type and permit number. Permit fees shall will be waived by the Owner. Permit fees for State highway road opening permits may still apply. Work shall not commence on any phase of the work requiring a permit until the permit is obtained.
- B. Submit applications for and obtain all required Road Opening (municipal and State) and Wetland Permits for excavations and work within streets or sidewalk areas.
- C. Prepare and submit the Building Permit on behalf of the Customer if water shutoff is required for plumbing work needed downstream of the meter.

1.09 DOOR HANGERS

- A. The Contractor shall be responsible for printing and distributing the following door hangers. The door hangers shall be printed 2-sided full color on white 12 pt stock with full bleed print with a cutout and slit at the top for the doorknob or handle. The Engineer will provide the door hanger electronic files for printing and distribution by the Contractor.
 1. Customer Sign-Up Doorhanger.
 2. 72-Hour Notice to Scheduled Replacements and to Other Impacted Residents on the Street.
 3. Water Shut-Off Notice.
 4. Pre-Replacement: What to Expect.
 5. Notification About Household Flushing.
 6. Critical Flushing When No Access to Spigot.
 7. Last Chance for Properties Not Yet Signed Up.

1.10 DISRUPTIONS TO THE EXISTING WATER SYSTEM

- A. If during the course of the excavation, the Contractor, for whatever reason, causes existing water mains to fail, restore service in the shortest possible time, working around the clock if necessary. Pay all costs associated with, or resulting from, all water main breaks at no additional cost to the Owner or Customer. Cooperate with the Owner in supplying emergency water.
- B. Planned or scheduled water shutdowns (only if approved by the Engineer or Owner) require the Contractor to notify the Owner in writing at least 72 hours prior to work on the existing water distribution system, including water distribution shutdown requests.
- C. Notify all affected residents and businesses along the project limits of any impending water main or water service work. It is the Contractor's responsibility to provide and distribute written notifications describing the expected water distribution system construction activities, the responsibility of the residents and/or businesses, how long the residents and/or businesses will be without service, and the estimated time of completion of the water distribution system construction activities. The notice should identify the location of the water distribution system construction activities as well as the times of any disruptions to the water system. The water distribution system shall not be taken out of service unless everyone serviced by the water main or water service has been notified at least 72 hours in advance. Notifications shall include 24-hour local or toll-free telephone numbers on the written notification in order to accommodate the residents' or business owners' questions or comments. Notices shall be approved in advance by the Owner and Engineer and shall be written in English and Spanish.
- D. Remind customers of the disturbance within 24 hours of the loss of service. This shall be either the day before the replacement is scheduled or the morning of.

1.11 TOOLS

- A. Any special tools unique to a special piece of equipment or appurtenances (including grease guns or other lubricating devices) which may be necessary for the adjustment, operation, and maintenance of any equipment or appurtenances shall be furnished with the respective equipment.

1.12 PARTS

- A. Parts for certain appurtenances have been specified in the pertinent Sections of the Specifications. Deliver to the Owner all required parts.
- B. Parts shall be packed in original cartons, properly labeled with indelible markings with complete descriptive information including manufacturer, part number, and part name.

1.13 EXISTING WATER SERVICE LINES

- A. Existing service lines made of galvanized steel are known to be brittle and have several bends. They may not extract in one piece if pipe pulling is used. The difficulty of pulling the existing pipe shall not result in any additional cost to the Owner.

1.14 UTILITY CROSSINGS

- A. It is intended that wherever existing utilities such as water, sewer, electrical or other service lines must be crossed, deflection of the pipe within recommended limits and cover shall be used to clear the obstruction satisfactorily. However, when in the opinion of the Owner or Engineer this procedure is not feasible the Engineer may direct the use of fittings for a utility crossing.

1.15 DAMAGE ON ACCOUNT OF HIGH WATER

- A. The Contractor will hold themselves responsible for all damage done to Contractor's work by heavy rains or floods, and Contractor shall take all reasonable precautions to provide against damages by building such temporary dikes, channels, or shoring to carry off stormwater as the nature of the work may require.

1.16 RELOCATIONS

- A. Contractor is responsible for the relocation of above-ground structures, including but not limited to light poles, signs, sign poles, fences, piping, laterals and french drains that interfere with the positioning of the work. The cost of all such relocations including labor, materials and equipment shall be included in the replacement bid items for the project and shall not result in any additional cost to the Owner. Costs imposed by a utility to protect their infrastructure will be paid for under the appropriate allowance item.

1.17 OBSTRUCTIONS

- A. The attention of the Contractor is drawn to the fact that during excavation at the Project site, the possibility exists of the Contractor encountering various water, sewer, electrical, or other lines unknown to Engineer. Exercise extreme care before and during excavation to locate and flag these lines to avoid damage to the existing lines. Should damage occur to an existing line, repair the line at no cost to the Owner.
- B. It is the responsibility of the Contractor to ensure that all utility or other poles, the stability of which may be endangered by the close proximity of excavation, are temporarily stayed in position while work proceeds in the vicinity of the pole and that the utility or other companies concerned be given reasonable advanced notice of any such excavation by the Contractor.

1.18 WATER SERVICE LINE REPLACEMENT PROCESS

- A. Refer to the details in Appendix B for additional requirements and notes related to the water service lines.
- B. Locations for Service Line Replacement:
 - 1. Contractor is required to visit the streets of the proposed replacements to become familiar with all conditions that may in any manner affect cost, progress or performance of the work, including conditions that exist prior to construction at every location for purposes of restoring conditions to at least equal to what exists prior to construction as part of the final restoration requirements of this project. Contractor's submission of a Bid for this project will constitute an incontrovertible representation that Contractor has visited all of the streets with proposed lead service line replacements, including for purposes of reviewing existing conditions to establish bid prices for this work for all potential final restoration as part of this work. Submission of a Bid for this project will also constitute an

incontrovertible representation that Contractor is satisfied with all of the site conditions that may affect the cost, progress or performance of the work of this project.

2. A list of addresses for replacement of existing lead service lines as part of this project are provided in Appendix A of this Project Manual and will be available in e-Builder. A list of customers at these addresses that have signed the Right-of-Entry (ROE) and Release Form for Galvanized Service Line Replacement will be continuously updated and shared by the Engineer to the Contractor via e-Builder. The Contractor shall make four (4) documented attempts to obtain a signed ROE from homeowners and log attempts in e-Builder. The four (4) attempts shall be on different dates and times and using different media (i.e. doorhangers, phone calls, door-to-door, etc.) and documented in the data management system. A minimum of three of the attempts must be door-to-door. A maximum of one of the attempts can be a phone call or email. The Contractor shall leave notification each time with a phone number for the Customer to contact them. The Contractor must be able to interact with customers (speak and write) real time in English and Spanish as appropriate based on who answers during the outreach process. If after four attempts, the ROE is not completed, the Contractor shall inform the Owner and Engineer in writing of the address, Customer name and the documented four failed attempts including date, time and media. The Engineer may attempt to contact the Customer within 72 hours of the Contractor notifying the Engineer. The cost for this effort shall be included in the replacement bid items and no additional payment will be provided for the outreach effort. If the homeowner refuses the replacement prior to the fourth attempt, the Contractor shall document the refusal (i.e. address, customer name, date and time of refusal, reason for refusal, and person obtaining the refusal) and does not need to complete the remaining attempts. Provide any signed ROEs to the Inspector to confirm eligibility and add into the master list. Owner reserves the right to revise the locations intended for lead service line replacements, including:
 - a. Adding or replacing proposed locations of replacements for any reason.
 - b. If replacement locations are added to the contract, these locations will be within the Work Area as defined in Appendix A.
 - c. Replacements and Test Pits at addresses added during construction shall be paid in accordance with the bid items in the Bid Form.
 - d. Owner will make every effort to ensure the proposed number of replacement locations will be provided to the Contractor. However, if the final replacement number is less than the bid quantity, Contractor shall have no claim to modify the price of the unit price item.
 - e. Owner can continue to attempt to get Property Owners to sign ROEs beyond the Contractor's required attempts up to 3 months before the Contract Complete Date, or prior to final paving restoration on that street, whichever comes first.
3. Contractor will complete all outreach and service line replacements as required per Section 01014.

C. Right-Of-Entry and Release Form Agreement:

1. Before scheduling or commencing any work on private property, Contractor will confirm that the Customer has completed a Right of Entry (ROE) and Release Form for Galvanized Service Line Replacement (a sample is provided as Appendix C). No work shall commence on private property until Contractor has received confirmation of a signed ROE and Release Form for Galvanized Service Line Replacement authorizing permission to complete work on private property and the ROE is submitted to and approved by the Owner.
2. Contractor shall print the form for signature by the homeowner. In lieu of providing and collecting hard copies of the ROE, the Contractor may obtain signatures electronically through the e-Builder platform.
3. If an executed hard copy of the ROE is obtained by the Contractor, the Contractor shall upload the signed ROE to the e-Builder platform.

D. Coordination with Owner:

1. Coordinate all work activities with the Owner and Engineer.

E. Coordination with other contractors:

1. Coordinate all work activities with any other Contractors performing work in adjacent areas.

F. Coordination with Customers:

1. Engineer or Owner will confirm Homeowner signatures on the ROE and Release Form for Galvanized Service Line Replacement obtained by the Contractor prior to Contractor commencing construction activities. Contractor shall coordinate with Customers on the list in Appendix A by scheduling an inspection to confirm the presence or absence of a lead water service line.
2. If, at a property where a private side replacement was expected to take place, copper is observed at the wall/floor penetration inside the home, Contractor shall perform a test pit at the curb stop to confirm the public and private side material. If both the private side and public side are non-lead materials at the curb stop, no replacement shall take place, and Contractor will be paid for a test pit as described in Section 01025.
3. If a property does not have known material, the Contractor shall perform a test pit to observe both the public and private side of the service line. If the private side is found to be lead or both the private and public side are found to be lead, the Contractor shall provide the Homeowner with a ROE and Release Form for Galvanized Service Line Replacement and get signature prior to performing any replacement work. If only the public side is found to be lead, the replacement work can proceed. If neither side is found to be lead, the Contractor shall backfill the location and be paid for a test pit as described in 01025.
4. Contractor shall make and document four (4) attempts to schedule the work. The four attempts shall be on different days and times. The Contractor shall leave notification each time with a phone number for the customer to contact them and document each attempt in the data management system. The Contractor must be able to interact with customers

(speak and write) real time in English and Spanish as appropriate based on who answers during the scheduling process. If after four attempts, the customer does not respond, the Contractor shall inform the Owner and Engineer in writing of the address, and Customer name, as well as, information on the four (4) failed attempts including date, time and summary of attempts made. The Owner may attempt to contact Customer within 72 hours of the Contractor notifying the Owner. If no replacement or no test pit occurs at the location, the Contractor will not be compensated for any work at this address.

- a. If the Customer decides to decline replacement at the time of scheduling, Contractor shall obtain a new ROE where the Customer formally declines and no additional payment will be provided.
 - b. If the Property Owner changes between the initial ROE submission and replacement, Contractor shall obtain a new ROE where the current Property Owner signs and no additional payment will be provided. Contractor shall “recommence” the four (4) attempts with the new Property Owner, even if the four (4) attempts were already conducted with the previous owner at no additional cost.
5. The Contractor is responsible for scheduling and coordinating all work at each individual location with the Customers, including approximate times when work will begin and end. An appointment is not considered scheduled until the Customer confirms verbally or in writing. For each location, Contractor shall provide to the Customers a general description of work to be performed and contact information of the Contractor, Engineer, and Owner. The Contractor shall schedule all replacements when homeowner is home unless the private side material is confirmed non-lead ahead of the replacement. The Contractor shall keep all appointments made with Property Owners unless Owner or Engineer requests to cancel. In the event a Contractor must cancel an appointment, the Property Owner and the Engineer must be notified immediately, but not less than 12 hours in advance and the communication with the Property Owner logged into e-Builder. The Contractor shall reschedule to another date when the Property Owner is available. Missed appointments that are not the fault of the Property Owner will not be paid for under any Bid Item.
6. Coordinate all work activities with Customers whose water service may be temporarily interrupted to facilitate work for this project. No water services can be disconnected without first notifying the customer. No customer shall be without water for more than an 8-hour period.
7. Schedule construction activities at the convenience of the Customer. A verbal or written confirmation from the Customer must be provided to be considered a schedule appointment. If the Customer cancels the work or is unavailable at the time of the scheduled appointment, the Contractor shall attempt to reschedule the work with the customer within 72 hours at the mutual convenience of the Customer and Contractor. If the customer refuses to reschedule within 72 hours, the Contractor shall be compensated via the unit price bid item for Access Not Provided. Submit documentation of the scheduled appointment and the customer’s confirmation that the appointment was accepted and then cancelled or proof that the customer did not show up for the appointment. This shall be documented in the e-Builder platform by the Contractor.
8. Customer shall provide reasonable access and a working area for the Contractor at the service line and water meter location inside their home. If such access is not provided, Contractor shall request Customer provide such access within 72 hours. If no access is provided during that time, immediately inform Owner and Engineer in writing of the

address and Customer name. If no access is provided by the Customer, then they shall be removed from the contract list, and the Contractor shall be compensated via the unit price bid item for Access Not Provided. No other work will be compensated at this address.

9. All Contractor personnel that will enter private property for any work on this project are required to have a form of identification that includes both their photo and signature. No Contractor personnel are allowed to attempt entry into private property or enter private property without having an approved form of identification.
10. The Contractor, subcontractors and all members of the construction crew shall continuously use all courtesies when working with the residents and their property. Such practices include, but are not limited to, using foot covers when inside the home, using electric saws and performing dust control to minimize any air contamination. Contractor shall minimize property disturbance to the minimum necessary disturbance in order to complete the replacement work. Contractor shall not request to use the bathrooms of the residents.

G. Photographic Documentation:

1. Photographic documentation shall be in accordance with Section 01322.
2. The Contractor is not allowed to start any work at any location until the Contractor has submitted pre-construction photographic documentation at each location. This requirement intends to document conditions existing prior to construction to establish documentation and visual evidence to confirm all needed final restoration that is at least equal to conditions existing prior to construction. No payment will be made to Contractor for work performed at a location unless photographic documentation is submitted in e-Builder for that location.
3. Provide photographic documentation of all completed work at all locations. This requirement intends to provide final visual evidence and a final record of final restoration. No payment will be made to Contractor for work performed at a location unless photographic documentation is submitted in e-Builder for that location.

H. Test Pits

1. A test pit is defined as a planned service line replacement that is found not to be lead on either side of the curb stop. A test pit shall be assumed to be at least 4-feet in length, or consist of two separate holes, to verify the materials at least 2-feet on both sides from the curb stop are not lead. Photograph the service line materials in accordance with Section 01322, and record the Private and Public-side materials, to verify both sides of the curb stop.
2. If a planned replacement results in a test pit, backfill in accordance with Section 02221 and the details in Appendix B. Payment will be made under Bid Item 1B. If a property is not on the list in Appendix A and has not been added by the Owner or Engineer, any test pit performed will be for the convenience of the Contractor and will not be paid under Bid Item 1B.
3. Water service must be turned off before any excavation near the lead service line, including test pits. Notify the Customer prior to turning off water service in accordance with Part E above.

4. Engineer or Owner may request test pits for identifying materials at additional properties. If a test pit does not result in a replacement at that address, backfill and restore in accordance with Section 02221 and the details in Appendix B only once the material information is obtained and recorded. Payment would be made under Bid Item 1B for requested test pits by the Engineer or Owner. Test pits requested by Owner or Engineer shall be performed to minimize disturbance to lead service lines while positively identifying the service line material on both sides of the curb stop.
5. Test pits are to be behind the curb only. Test pits in roadways shall only be performed at the direction of the Owner or Engineer, and Controlled Low-Strength Material (CLSM) shall be used to ensure required compaction and strength are achieved. The backfilled surface shall be maintained in a satisfactory condition for travel until resurfaced as specified.
6. Owner will provide electronic file of the flushing instruction flyer to the Contractor for printing. Contractor shall provide the flyers to each unit in the property after every test pit immediately after completing a test pit where lead or galvanized is found.

I. Additional Replacements:

1. Contractor may, at Owner's direction, commence replacement at a property that is not on the list in Appendix A under all of the following conditions:
 - a. An LSL not listed in Appendix A is discovered to be in the same trench as a planned replacement once and ROE is signed and reviewed by the Owner or Engineer if the private-side is impacted.
 - b. A signed ROE and Release Form for Galvanized Service Line Replacement for the property not listed in Appendix A has been received by the Owner and added to the list of replacements.
 - c. The Owner has approved a replacement at this location.
 - d. Any additional homes will not replace the addresses already on the list in Appendix A.

J. Water Service Line Replacements:

1. All work, including final interior connections performed by a licensed plumber in accordance with the Connecticut Plumbing Code for lead service line replacements at each location must be completed in a maximum time not to exceed 8 hours. Temporary shutdowns of service lines to facilitate replacement of lead service lines shall not exceed 8 hours and in no case shall any customer or location be without potable water service longer than 8 hours.
2. Unless otherwise approved by the Engineer, all work shall be performed with water mains live and in service as specified in Section 02663.
3. Buildings in this area should assumed to be grounded to the water service line. See Section 02663 for the requirements under this contract related to grounding.
4. Unless otherwise approved by the Engineer, all planned service line replacements shall begin with an excavation behind the curb to confirm existing service line materials on both the public and private side of the curb stop. Excavation in roadways shall only be performed once the service line materials are confirmed to be lead and require replacement.

5. New water service lines to replace existing lead services shall be as specified in Section 02663. The minimum size of all new service lines is 1-inch.
6. Typical water service connection details are included in Appendix B to the Specifications. These details represent typical conditions for water service line replacement. Each location will vary.
7. Final connection of new service lines to the existing water meter in buildings will be made by a licensed plumber in accordance with the Connecticut Plumbing Code included in this Contract. Coordinate all work with Engineer and Owner.
8. Contractor shall be prepared and responsible for draining and handling water from building plumbing after cutting into the existing service lines to facilitate the installation of new work. All water drained from building plumbing shall be drained outside of the building not to flood the existing building basement.
9. Refer to Appendix B for the standard details for this project and additional requirements for water service line installations.

K. Existing Sewer Service Connections:

1. Water and sewer services may be located in close proximity and/or the same trench at many locations. The Contractor is cautioned as to the proximity of existing sewer services to the existing water service line.
2. Any existing sewer service connection that is broken or damaged by the Contractor during construction shall be repaired with all pipe, fittings, and couplings at no additional cost to the Owner. No separate payment will be paid for the repair of existing sewer service connections damaged by the Contractor.

L. Illegal Water Service Connections:

1. If during work an illegal water service tap is discovered upstream of a meter, Contractor shall document with photographs and immediately contact Owner and Engineer.
2. After inspection by Owner or Engineer, Contractor shall remove the illegal service line up to property line or to the extent in which it is exposed. If removal is not possible, the pipe shall be crimped in two locations a minimum of 1-foot apart. If a replacement of a lead service line occurs, payment shall be under Item 1A or 2A in the bid form. If no replacement of a lead service line occurs, payment shall be under the Miscellaneous Work at Direction of Owner Allowance Item.
3. If during work an address is discovered to not have a water meter present, Contractor shall document with photographs and immediately contact Owner and Engineer.

M. Final Restoration:

1. Before starting construction at any location, Contractor shall review features that will be impacted by construction that shall be restored to a condition at least equal to that which existed prior to construction.

2. The Contractor is required to restore all areas to a condition at least equal to that which existed prior to construction, other than the items listed in the Right of Entry (ROE) and Release Form for Galvanized Service Line Replacement. Temporary sidewalk restorations must be performed at the time of the replacement and final sidewalk restorations must be performed between 45-90 days after a replacement. All final paving must be completed by the Contractual Completion date and coordinated with the Owner and Engineer, but no earlier than 45 days after the replacement to allow sufficient time for settlement. Cold patch is to be used for temporary sidewalk restorations performed during winter moratorium with final restoration to be complete in the spring when weather allows for proper material installation. Final road restoration shall be performed on streets as needed based on the work performed. The Engineer will inspect all work and will inspect pre- and post-construction photographic and video documentation to confirm that all final restoration is acceptable, including restoration on private property as specified in Sections, 02576 Pavement Repair and Resurfacing, and 02930 Loaming and Seeding. Damage to private property shall be the responsibility of the Contractor.

1.19 EXCAVATED SOIL

- A. The project excavation areas are located within the public right of way and private property. All excess soils for disposal are assumed to be non-hazardous contaminated soil and shall be excavated, stockpiled, hauled and disposed of in accordance with all local, state and federal regulations at no additional cost to the Owner.
- B. Native soil may be reused on the property it was excavated from if it meets the requirements for Common Fill in accordance with Section 02230.

1.20 UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

- A. 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 Owner, Local Historical Society, State Historic Preservation Office (860) 500-2329, and Resident Project Representative, 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-foot 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.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01180 PIPE PENETRATIONS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required and install pipe penetration assemblies at all floor and wall penetrations. This Section covers materials for the various pipe penetration configurations. Penetration details are provided in Appendix B. Where possible, existing pipe penetration are to be reused. Where penetrations are required the most conservative penetration detail shown on the detail sheets shall be utilized as appropriate for the piping type, the wall or floor construction and the rating of the wall or floor penetrated.
- B. Fill any voids left from removing or installing the water service lines to the satisfaction of the Engineer, Owner and any agency having jurisdiction over the work with approved sealant.
- C. In instances where meter is relocated, fill vacated meter pits with concrete to the satisfaction of the Engineer, Owner and any agency having jurisdiction over the work.

1.03 RELATED WORK

- A. Cutting, coring and patching are included in Section 01045.
- B. Interior service piping and appurtenances are included in Section 15410.

1.04 SUBMITTALS

- A. Submit manufacturers' literature, installation instructions, and where applicable, certified test results of the various components on all items including sleeve, seal, and grout materials to be furnished in accordance with Section 01300.
- B. Submit proposed sealing methods for pipe penetrations.

1.05 WARRANTY

- A. Warrant the work against defects for one year from the date of Substantial Completion.

PART 2 PRODUCTS

2.01 PIPE SLEEVE

- A. Pipe sleeve shall be PVC, galvanized steel or as required by the local plumbing code official.

- B. Wall opening for pipe sleeve shall be cored when a new penetration is used. Coring shall be used regardless of foundation thickness. All concrete or cement foundations are anticipated to be 16-inch or less. For foundations thicker than 16-inches, the contractor will be paid time and materials for the additional time for coring above and beyond the 16-inches. Chipping to create or enlarge a penetration is not permitted unless approved by the Engineer in writing.
- C. Annular spaces shall be repaired and sealed with watertight seal between pipe sleeve and existing concrete.
- D. Pipe sleeves are required for penetrations through the wall whether new or existing.

2.02 SEALING MATERIALS

- A. Install mechanical seal between the new copper pipe and the pipe sleeve when coring a new hole. Mechanical seals shall consist of rubber links shaped to continuously fill the annular space between the pipe and the sleeve. Link pressure plates shall be molded of glass reinforced nylon. Hardware shall be mild steel with a 60,000 psi minimum tensile strength and 2-part Zinc Dichromate coating per ASTM B-633 and Organic Coating, tested in accordance with ASTM B-117 to pass a 1,500-hour salt spray test. Links shall be colored throughout elastomer for positive material identification. Each link shall have permanent identification of the size and manufacturer's name molded into the pressure plate and sealing element. The completed sealing system shall be duty pressure rated for 20 psig differential pressure. Link material shall be EPDM "M" for all services except fire-rated assemblies; fire rated seals shall use silicone link material. Mechanical seals shall be PSI-Thunderline/ Link-Seal® as manufactured by Pipeline Seal & Insulator, Inc. (PSI), Houston, TX, or pre-approved equal.
- B. Wrap copper pipe in insulation tape. Insulation tape shall be Harvey's Black Pipe Wrap or equal.
- C. Install sealant in remaining voids between the new copper pipe and the pipe sleeve. Sealant shall be a two-part vulcanizing (RTV) silicone foam by The Dow Chemical Company, Product No. 3-6548 R.T.V. Silicone Foam; 3M brand fire barrier products caulk C.P. 25 and 3M brand moldable putty MP+, or Flame-Safe firestop systems FS-900 by RectorSeal or approved equal. Sealant bead configuration, depth, and width shall be in accordance with manufacturer's recommendations.

2.03 SLEEVE GROUT MATERIALS

- A. Epoxy bonding compound shall be Sikadur Hi-Mod epoxy by Sika Corp.; Euco 452 Epoxy System by Euclid Chemical Corp.; or pre-approved equal.
- B. Non-shrink grout shall be Masterflow 713 by Master Builders Co, also known as SikaGrout 713 by Sika Corp.; Euco NS by Euclid Chemical Co.; Five Star Grout by U.S. Grout Corp.; or approved equal.
- C. Class II Non-Shrink Grout:
 - 1. Class II Non-Shrink grout shall be high precision, fluid, extended working time grout. The minimum 28-day compressive strength shall be 5,000 psi when mixed at a fluid consistency.

2. Grout shall have a maximum early age height change of 4.0 percent expansion, and shall have no shrinkage (0.0 percent) in accordance with ASTM C827.
3. Grout shall have no shrinkage (0.0 percent) and a maximum of 0.3 percent expansion in the hardened state when tested in accordance with ASTM C1090.
4. Class II grout shall have an extended working time of 30 minutes minimum when mixed to a fluid consistency as defined in ASTM C827 at temperature extremes of 45 to 90 degrees F in accordance with ASTM C1107.
5. Class II Non-Shrink grouts shall meet the requirements of ASTM C1107; Grade B or C when tested using the amount of water needed to achieve fluid consistency per ASTM C939.
6. The grout when tested shall not bleed or segregate at the maximum allowed water.
7. Provide certification that its non-shrink property is not based on gas production or gypsum expansion.

2.04 ALTERNATE PENETRATION METHOD

- A. When penetration is through a solid concrete foundation wall and the Plumbing Inspector does not require a sleeve, the Contractor may use packing material with backer rod (a minimum of three (3) per penetration) to seal the annular space between the pipe and the concrete wall when the hole is cored.
- B. Fill remaining opening with hydraulic cement.
- C. Wrap copper pipe in Harvey 10 mil black pipe wrap or equal where it will come into contact with cement.

2.05 STONE PATCHING COMPOUND:

- A. Factory-mixed cementitious product that is custom manufactured for patching stone.
 1. Products: Provide one of the following:
 - a. Cathedral Stone Products, Inc.; Jahn Restoration Mortars.
 - b. Conproco Corporation;
 - c. Edison Coatings, Inc.; Custom System 45.
 - d. Or pre-approved equal.
 2. Use formulation that is vapor and water permeable (equal to or more than the stone), exhibits low shrinkage, has a lower modulus of elasticity than the stone units being repaired, and develops the high bond strength to all types of stone.
 3. Use formulation having working qualities and retardation control to permit forming and sculpturing where necessary.
 4. Formulate patching compound in colors, textures, and grain to match stone being patched. Provide colors to enable matching each piece of stone, to the satisfaction of the Engineer.

PART 3 EXECUTION

3.01 PREPARATION OF SURFACE:

- A. All surfaces that will be in contact with seal shall be free of dirt, loose rust, oil, wax, grease, curing compounds, laitance, loose concrete or other deleterious and all other preparations in accordance with manufacturer's recommendations.

3.02 PROCEDURES

- A. Waterproof seal product shall be placed in such a manner, for the consistency necessary for each application, to assure that the space to be sealed is completely filled.

3.03 CURING

- A. Seals shall be cured per manufacturer's recommendations.

END OF SECTION

SECTION 01300 SUBMITTALS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. This Section specifies the general methods and requirements of submissions applicable to Shop Drawings, Product Data, Construction Photographs, and Construction or Submittal Schedules. Additional general submission requirements are contained in Article 7.16 of the General Conditions. Detailed submittal requirements are specified in the technical Sections. A preliminary list of shop drawings is included in PART 2.
- B. All submittals shall be clearly identified by reference to Section Number, Paragraph, Contract Map number or Detail as applicable. Submittals shall be clear and legible and of sufficient size for presentation of data.
 - 1. Submittals are categorized into two types: Action Submittals and Informational Submittals
 - Action Submittal: Written and graphic information submitted by the Contractor that requires the Engineer's approval. The following are examples of action submittals:
 - a. Shop drawings (including working drawings, product data, and signage).
 - b. Schedule of values.
 - c. Payment application format.
 - 2. Informational Submittal: Information submitted by the Contractor that does not require the Engineer's approval. The following are examples of informational submittals:
 - a. Shop Drawing Schedule.
 - b. Construction Schedule.
 - c. Two-Week Lookahead Schedules.
 - d. Statements of Qualifications.
 - e. Health and Safety Plans (Project-Specific, including but not limited to, the following information: types of hazards onsite, procedures and measures, emergency contact information, PPE guidelines for the specific work on this project).
 - f. Construction Photography and Videography.
 - g. Work Plans.
 - h. Maintenance of Traffic Plans.
 - i. Test Records and Reports.
 - j. Certifications.
 - k. Record Information.
 - l. Record Shop Drawings.
 - m. Submittals required by laws, regulations and governing agencies.
 - n. Submittals required by funding agencies.

- o. Other requirements found within the technical specifications.
- p. Warranties and Bonds.
- q. Contract Close-out Documents.

1.03 RELATED WORK

- A. Additional requirements may be specified in the General Conditions for the Contract.
- B. Additional submittal requirements may be specified in the respective technical Specification Sections.
- C. Requests for Information are included in Section 01038.
- D. Photographic Documentation is included in Section 01322.
- E. Contract Closeout submittals are included in Section 01700.
- F. Project Record Documents are included in Section 01720.

1.04 CONTRACTOR'S RESPONSIBILITIES

- A. All submittals shall be clearly identified as follows:
 - 1. Date of Submission.
 - 2. Project Number.
 - 3. Project Name.
 - 4. Contractor Identification:
 - a. Contractor.
 - b. Supplier.
 - c. Manufacturer.
 - d. Manufacturer or supplier representative.
 - 5. Identification of the Product.
 - 6. Reference to Contract Maps and Details.
 - 7. Reference to specification section number, page and paragraph(s).
 - 8. Reference to applicable standards, such as ASTM or Federal Standards numbers.
 - 9. An indication of Contractor's approval.
 - 10. Contractor's Certification statement.
 - 11. Identification of deviations from the Contract Documents, if any.
 - 12. Reference to previous submittal (for re-submittals).

13. American Iron and Steel and Build America, Buy America Certificates (where applicable).
- B. Submittals shall be clear and legible, and of sufficient size for legibility and clarity of the presented data.
- C. Submittal Log: Maintain a log of all submittals. The submittal log shall be kept accurate and up to date. This log should include the following items (as applicable):
 1. Description.
 2. Submittal Number.
 3. Date transmitted to the Engineer.
 4. Date returned to Contractor (from Engineer).
 5. Status of Submittal (Approved/Not Approved/etc.).
 6. Date of Resubmittal to Engineer and Return from Engineer (if applicable and repeat as necessary).
 7. Date material released for fabrication.
 8. Projected (or actual) delivery date.
- D. Numbering System: Utilize the following submittal identification numbering system:
 1. The first character shall be a D, S, M or I which represents Shop Drawing (including working drawings and product data), Sample, Manual (Operating & Maintenance) or Informational, respectively.
 2. The next five digits shall be the applicable Section Number.
 3. The next three digits shall be the sequential number of each separate item or drawing submitted under each Specification Section, in the chronological order submitted, starting at 001.
 4. The last character shall be a letter, A to Z, indicating the submission (or resubmission) of the same submittal, i.e., "A" = 1st submission, "B" = 2nd submission, "C" = 3rd submission, etc. A typical submittal number would be as follows:
 - a. D-03300-008-B.
 - b. D = Shop Drawing
 - c. 03300 = Section for Concrete.
 - d. 008 = the eighth different submittal under this Section.
 - e. B = the second submission (first resubmission) of that particular shop drawing.
 5. Submittals that are not cataloged as described in this Section will not be reviewed by the Engineer and will be immediately returned to the Contractor for resubmittal.
- E. Variances:

1. Notify the Engineer in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.
 2. Notify the Engineer in writing, at the time of re-submittal (resubmission), of all deviations from previous submissions of that particular shop drawing, except those deviations which are the specific result of prior comments from the Engineer.
- F. Submit all of the data and documents required by the Contract Documents (unless specified otherwise) to the Engineer electronically:
1. Facilitate exchanging information electronically.
 2. Expedite the review process for submitted documents.
 3. Centralize Project information.
- G. Project communications shall be submitted and processed using electronic file sharing and shall be the primary communication tool for all document transfers between the Owner, the Engineer, and the Contractor.

1.05 SHOP DRAWINGS AND PRODUCT DATA

A. Shop Drawings:

1. Shop Drawings as specified in individual Sections include such items as custom-prepared data such as fabrication and erection/installation (working) drawings, scheduled information, setting diagrams, actual shopwork manufacturing instructions, custom templates, special wiring diagrams, coordination drawings, individual system or equipment inspection and test reports including pump curves and certifications, as applicable to the Work.
2. All Shop Drawings submitted by subcontractors shall be sent directly to the Contractor for checking. The Contractor shall be responsible for their submission at the proper time so as to prevent delays in delivery of materials.
3. Check all subcontractors' shop drawings regarding measurements, size of members, materials and details to make sure that they conform to the intent of the Details and related Sections. Return shop drawings found to be inaccurate or otherwise in error to the subcontractors for correction before submission thereof.
4. All details on shop drawings shall show clearly the relation of the various parts to the main members and lines of the structure and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the drawings before being submitted.
5. Submittals for equipment or material specified under Divisions 2 or 3 shall include a listing of all installations where identical or similar equipment or material has been installed and been in operation or use for a period of at least one year.
6. Delays to construction due to the untimely submission of submittals will constitute inexcusable delays, for which Contractor shall not be eligible for additional cost nor

additional contract time. Inexcusable delays consist of any delay within the Contractor's control.

B. Product Data:

1. Product data as specified in individual Sections include such items as, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliance and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing and printed product warranties, as applicable to the work.

C. Test Records and Reports:

1. Provide copies of all test records and reports as specified in the various technical specifications.

D. Certifications:

1. Provide all material certifications required to meet the federal and state laws as required in the applicable specification sections.

E. Record Information:

1. Submit record information in accordance with Section 01720 for each property including electronic information required in e-Builder, photographs and scanned copies of all permit applications and approvals.

F. Record Shop Drawings:

1. Before final payment is made, furnish one set of record shop drawings to the Engineer. These record shop drawings shall be in conformance with the approved documents and should show any field conditions which may affect their accuracy.
2. Submittals required by laws, regulations and governing agencies.
 - a. Prepare and submit all documentation required by state or local law, regulation or government agency directly to the applicable agency. This includes, but is not limited to, notifications, reports, certifications, certified payroll (for projects subject to wage requirements) and other documentation required to satisfy all requirements. Provide to Engineer one copy of each submittal made in accordance with this paragraph.
3. Submittals required by funding agencies
 - a. Prepare and submit all documentation required by funding agencies. This includes, but is not limited to segregated pay applications and change orders when required to allocate funds to different funding sources properly; and certified payrolls for projects

subject to wage requirements. Provide one copy of each submittal made in accordance with this paragraph to the Engineer.

G. Other requirements of the technical Specification Sections

1. Comply with all other requirements of the technical specifications.

1.06 CONTRACTOR'S CERTIFICATION

- A. Review shop drawings, product data and samples, including those by subcontractors, prior to submission to determine and verify the following:

1. Field measurements.
2. Field construction criteria.
3. Catalog numbers and similar data.
4. Conformance with related Sections.

- B. Each shop drawing, sample and product data submitted by the Contractor shall have affixed to it the following Certification Statement including the Contractor's Company name and signed by the Contractor:

"Certification Statement: by this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements."

Shop Drawings and Product Data sheets 11-inch by 17-inch and smaller shall be bound together in an orderly fashion and bear the above Certification Statement on the cover sheet. Submittals presented without a Certification Statement will not be reviewed by the Engineer and will be immediately returned to the Contractor for resubmittal. The cover sheet shall fully describe the packaged data and include a listing of all items within the package. Provide to the Resident Project Representative a copy of each transmittal sheet for shop drawings, product data and samples at the time of submittal to the Engineer.

- C. Notify the Engineer in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.
- D. The review and approval of shop drawings, samples or product data by the Engineer shall not relieve the Contractor from the responsibility for the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the Contractor and the Engineer will have no responsibility therefore.
- E. No portion of the work requiring a shop drawing, sample, or product data shall be started nor shall any materials be fabricated or installed prior to the approval or qualified approval of such item. Fabrication performed, materials purchased or on-site construction accomplished which does not conform to approved shop drawings and data shall be at the Contractor's risk. The Owner will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
- F. Project work, materials, fabrication, and installation shall conform with approved shop drawings, applicable samples, and product data.

1.07 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with approved schedule and in such sequence as to cause no delay in the Work or in the work of any other contractor.
- B. Each submittal, appropriately coded, will be returned within 14 working days following receipt of submittal by the Engineer.
- C. All submittals and RFI's shall be provided to the Engineer via electronic file sharing.
- D. Number of submittals required:
 - 1. Shop Drawings: One PDF submission.
 - 2. Product Data: One PDF submission.
 - 3. Samples: Submit the number stated in the respective Sections.
- E. Submittals shall contain:
 - 1. The date of submission and the dates of any previous submissions.
 - 2. The Project title and number.
 - 3. Contractor identification.
 - 4. The names of:
 - a. Contractor.
 - b. Supplier.
 - c. Manufacturer.
 - 5. Identification of the product, with the section number, page and paragraph(s).
 - 6. Field dimensions, verified prior to submission, clearly identified as such.
 - 7. Relation to adjacent or critical features of the work or materials.
 - 8. Applicable standards, such as ASTM or Federal Standards numbers.
 - 9. Identification of deviations from Contract Documents.
 - 10. Identification of revisions on re-submittals.
 - 11. An 8-inch by 3-inch blank space for Contractor and Engineer stamps.
 - 12. Where calculations are required to be submitted by the Contractor, a qualified individual other than the preparer shall have checked the calculations. The submitted calculations shall clearly show the names of the preparer and of the checker.
- F. Submittals may be transmitted by electronic means provided the following conditions are met:

1. The above-specified transmittal form is included.
2. All other requirements specified above have been met including, but not limited to, coordination by the Contractor, review and approval by the Contractor, and the Contractor's Certification.
3. The submittal contains no pages or sheets larger than 11 inch by 17 inch.
4. The entire submittal is included in a single file.
5. The electronic files shall be in PDF format, the file shall be indexed, bookmarked, searchable and print enabled
6. The Engineer's review time will commence upon receipt of the transmittal with the attached PDF's in proper format.
7. For Submittals that require certification, corporate seal, or professional embossment (i.e., P.E.s, Surveyors, etc.) transmit at least three hard-copy originals to the Engineer. In addition, provide additional photocopied or scanned copies, as specified above, showing the required certification, corporate seal, or professional seal.

1.08 REVIEW OF SHOP DRAWINGS AND PRODUCT DATA

- A. The review of shop drawings will be for general conformance with the design concept and Contract Documents. They shall not be construed:
 1. As permitting any departure from the Contract requirements;
 2. As relieving the Contractor of responsibility for any errors, including details, dimensions, and materials;
 3. As approving departures from details furnished by the Engineer, except as otherwise provided herein.
- B. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
- C. If the Shop Drawings, data or samples as submitted describe variations and show a departure from the Contract requirements which Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or Contract Time, the Engineer may return the reviewed drawings without noting an exception.
- D. Submittals will be returned to the Contractor under one of the following codes.
 - Code 1 - "APPROVED" is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.
 - Code 2 - "APPROVED AS NOTED" This code is assigned when a confirmation of the notations and comments IS NOT required by the Contractor. The Contractor may

release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.

- Code 3 - "APPROVED AS NOTED/CONFIRM" This combination of codes is assigned when a confirmation of the notations and comments IS required by the Contractor. The Contractor may, at his own risk, release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This confirmation shall specifically address each omission and nonconforming item that was noted. Confirmation is to be received by the Engineer within 15 calendar days of the date of the Engineer's transmittal requiring the confirmation.
- Code 4 - "APPROVED AS NOTED/RESUBMIT" This combination of codes is assigned when notations and comments are extensive enough to require a resubmittal of the package. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal is to be received by the Engineer within 15 calendar days of the date of the Engineer's transmittal requiring the resubmittal.
- Code 5 - "NOT APPROVED" is assigned when the submittal does not meet the intent of the Contract Documents. The Contractor must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.
- Code 6 - "COMMENTS ATTACHED" is assigned where there are comments attached to the returned submittal which provide additional data to aid the Contractor.

Codes 1 through 5 designate the status of the reviewed submittal with Code 6 showing there has been an attachment of additional data.

- E. Resubmittals will be handled in the same manner as first submittals. On re-submittals, the Contractor shall identify all revisions made to the submittals, either in writing on the letter of transmittal or on the shop drawings by use of revision triangles or other similar methods. The resubmittal shall clearly respond to each comment made by the Engineer on the previous submission.
- F. Additionally, the Contractor shall direct specific attention to any revisions made other than the corrections requested by the Engineer on previous submissions.
- G. The Engineer will not review preliminary submittals that do not conform to the requirements of regular submittals. Any preliminary submittal will count as the first review and additional submittals will be considered resubmittals.
- H. Partial submittals may not be reviewed. The Engineer will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the Contractor and will be considered "Not Approved" until resubmitted. The Engineer may at his option provide a list or mark the submittal directing the Contractor to the areas that are incomplete.
- I. Repetitive Review:

1. Shop drawings and other submittals will be reviewed no more than twice at the Owner's expense. All subsequent reviews will be performed at times convenient to the Engineer and at the Contractor's expense, based on the Engineer's then prevailing rates. The Contractor shall reimburse the Owner for all such fees invoiced to the Owner by the Engineer. Submittals are required until approved.
 2. Any need for more than one resubmission, or any other delay in obtaining Engineer's review of submittals, will not entitle Contractor to an extension of the Contract Time.
 3. As specified in Section 01010, Contractor shall prepare and submit digital construction data reports in a complete and timely manner, with Contractor's performance of data quality reviews before submissions to Engineer for review. If more than 20% of the Contractor's submitted digital construction data reports are identified by the Engineer or Owner to be deficient, and/or need correction and resubmission, then the Contractor will be responsible to reimburse the Owner for the additional services of the Engineer to manage, review, and track the Contractor's deficient reports and the resubmitted reports.
- J. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the Contractor shall give written notice thereof to the Engineer at least seven working days prior to release for manufacture.
- K. When the shop drawings have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.

1.09 DISTRIBUTION

- A. Distribute electronic reproductions of approved shop drawings and copies of approved product data and samples, where required, to the job site file and elsewhere as directed by the Engineer. The recipients of electronic copies shall be as directed by the Engineer.

1.10 PROFESSIONAL ENGINEER (P.E.) CERTIFICATION FORM

- A. If specifically required in other related Sections, submit a P.E. Certification for each item required, in the form attached to this Section, completely filled in and sealed.

1.11 ELECTRONIC FILE SHARING REQUIREMENTS

- A. The online submittal exchange platform, e-Builder will be hosted by the Engineer.
- B. All data entered into the electronic file sharing site or service shall be the Owner's sole property.
- C. The Contractor shall be responsible for the validity of the information placed on the electronic file sharing site or service and their personnel's ability to use the application.
- D. The Contractor is responsible for training their personnel in the use of the electronic file sharing site or service.
- E. Any costs associated with using the electronic file sharing site or service system shall be evenly distributed in the Project overheads; a separate added cost shall not be allowed.

- F. Notify the Engineer immediately about any users who no longer are permitted access to the electronic file sharing site or service. Their user account shall be deactivated.
- G. Protect the electronic file sharing site or services security by limiting access to authorized users only and not allowing them to share usernames and passwords.
- H. Comply with the applicable laws and regulations regarding the electronic transmission of documents requiring the stamps or signatures of professional architects, professional engineers, geologists, and surveyors including any provisions to provide of hard copies of such documents as appropriate.
- I. The Contractor, their representatives, users, sub-consultants, and subcontractors shall not enter, attach, or store sensitive personal information such as Social Security numbers in the electronic file sharing site or service.
- J. Project Communications requiring an authorized person's signature shall use either of the following:
 - 1. An approved image of the official signature to be affixed to the document with the original signed hard copy/paper document to be provided as well.
 - 2. An electronic copy or electronic image of a fully executed document containing the required signatures with the original signed hard copy/paper document to be provided as well.

PART 2 PRODUCTS

2.01 PRELIMINARY SHOP DRAWING LIST

- A. The below submittals are required to be submitted as part of this project. No scheduling of replacements shall be made until the noted submittals are approved. Additional submittals throughout the specifications are conditional and are required if the conditions apply. The list is not intended to be comprehensive and final. Submittals required in other sections of the specifications are required whether or not included in this list:

<u>Section</u>	<u>Submittal Topic</u>
Procedures and Informational	
01010	Permits
01014	Proposed Notification and Construction Sequence*
01026	Applications for Payment
01045	Cutting, Coring and Patching*
01046	Hydrant Meter with backflow preventer setup
01170	All names of all employees working on the project*
01300	Contact List / Emergency Contacts*
01300	Health & Safety Plan*
01300	Schedule of submittals*
01310	Baseline construction schedule*
01310	Two week look aheads (initial)*
01322	Pre and post-construction photographs for each property

01370	Schedule of values*
01410	Independent testing lab*
01576	Traffic control submittals*
02140	Dewatering and drainage*
02151	General drawing for utility impact moling set up*
02151	Utility impact moling equipment to be used*
02213	Rock and boulder excavation (if needed)
02221	Trenching (if sheeting and bracing is needed)
02221	Backfilling and compaction*
02311	Excavation support and protection (if needed)
02663	Electrical grounding*
02768	General drawing for pipe pulling set up*
02768	Pipe pulling equipment to be used*
Construction Materials	
01180	Pipe sleeve*
01180	Sealant*
01180	Epoxy/ grout*
01180	Mechanical sleeve*
01580	Project sign*
02270	Sedimentation and erosion control products*
02230	Granular fill materials*
02230	Warning tape*
02576	Pavement repair*
02663	Copper fittings*
02663	Type K Copper*
02663	Curb Box*
02663	Corporation Stop*
02663	Curb Stop*
02663	Electrical grounding clamps*
02663	AIS Certification (Curb box, pipe hangers and supports, reinforcing steel)*
02930	Site restoration materials and seed mixtures*
03301	Concrete*
03301	Reinforcing steel*
15410	Interior – Copper Pipe (if different than exterior pipe)*
15410	Interior – Valves*
15410	Interior – Pipe hangers and supports*
15410	Interior – Solder*
BABA Certification	For iron and steel, manufactured products, and non-ferrous construction materials (non-ferrous metals, plastic and polymer-based products, glass, lumber, drywall; excludes cement and cementitious materials, aggregates, aggregate binding agents, flora, and non-permanent items)*

Any submittal on the above list marked with “*” shall be submitted and approved prior to scheduling any work with homeowners. Allowable timeframes for submittal review stated herein shall be accounted when providing the submittals.

2.02 SOFTWARE

- A. For the duration of the project, e-Builder will be maintained by the Engineer for submission of shop drawings, RFIs, and field data such as quantities and schedules. Contractor shall be provided licenses at the start of work.
- B. Access to the electronic file sharing site or service shall be provided to allow for submitting and processing documents including, but not limited to, letters, shop drawings, submittals, meeting minutes, daily reports, drawings, Specifications, quantities, schedules, memoranda, payment requisitions, change order requests, testing reports, warranties, guarantees, and correspondence. Requests for Information (RFIs) shall be directly entered into e-Builder and generated by the application unless specified otherwise.
- C. Subcontractors and suppliers shall not have direct access to the electronic file sharing site or service unless approved otherwise by Owner and Engineer. Entering information to be exchanged and transferred between the Contractor and subcontractors and suppliers shall be the Contractor's responsibility.

2.03 INTERNET CONNECTIVITY

- A. The electronic file sharing site or service shall be a web-based environment subject to the Contractor's internet service provider's speed and connectivity issues. The Contractor is responsible for their own connectivity to the internet. The electronic file sharing site or service's response time depends on the user's equipment including processor speed, network interface equipment, internet service provider access speed, etc., and current traffic on the internet.
- B. Owner and Engineer shall not be liable for any delays associated with the usage of the electronic file sharing site or service including, but not limited to, slow response time, down time periods, connectivity problems, or information loss on the Contractor's equipment.
- C. Under no circumstances shall using the electronic file sharing site or service be grounds for a time extension or cost adjustment to the Contract.
- D. The Contractor shall have access to the electronic file sharing site or service, and it shall be operational on the Notice to Proceed date.

2.04 DOWN TIME

- A. If the electronic file sharing site or service system is temporarily unavailable, continue with Project Communications using an alternate secure means (e-mail) or hard copies to transmit and receive Project communications.
- B. Maintain records for all Project communications during the electronic file sharing site or service down time and upload the records to the electronic file sharing site or service when it is operational.
- C. Notify the Owner and Engineer by telephone and/or e-mail when the electronic file sharing site or service is not functional.

PART 3 EXECUTION

3.01 SUBMITTAL SCHEDULE

- A. Provide an initial submittal schedule (if different than what is provided in this Section) at the pre-construction meeting for review by Owner and Engineer. Incorporate comments from Owner or Engineer into a revised submittal schedule.
- B. Maintain the submittal schedule and provide sufficient copies for review by Owner and Engineer. An up-to-date submittal schedule shall be provided at each project progress meeting.

3.02 TRANSMITTALS

- A. Prepare separate transmittal sheets for each submittal. Each transmittal sheet shall include at least the following: the Contractor's name and address, Owner's name, project name, project number, submittal number, description of submittal and number of copies submitted.
- B. Submittals shall be transmitted or delivered directly to the Engineer, as indicated in the Contract Documents or as otherwise directed by the Engineer.

3.03 PROCEDURES

- A. Action Submittals:
 - 1. Contractor's Responsibilities:
 - a. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work of other related Sections, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required). Coordinate with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. Extensions to the Contract Time will not be approved for the Contractor's failure to transmit submittals sufficiently in advance of the Work.
 - b. The submittals of all shop drawings (including working drawings and product data) shall be sufficiently in advance of construction requirements to allow for possible need of re-submittals, including the specified review time for the Engineer.
 - c. No less than 14 calendar days will be required for Engineer's review time for shop drawings and O&M manuals involving only one engineering discipline. No less than 14 calendar days will be required for Engineer's review time for shop drawings and O&M manuals that require review by more than one engineering discipline. Resubmittals will be subject to the same review time.
 - d. Submittals of operation and maintenance data shall be provided within 14 days of approval of the related shop drawing(s).
 - e. Before submission to the Engineer, review shop drawings as follows:
 - 1) make corrections and add field measurements, as required
 - 2) use any color for its notations except red (reserved for the Engineer's notations) and black (to be able to distinguish notations on black and white documents)
 - 3) identify and describe each and every deviation or variation from Contract documents or from previous submissions, except those specifically resulting from a comment from the Engineer on a previous submission

- 4) include the required Contractor's Certification statement
- 5) provide field measurements (as needed)
- 6) coordinate with other submittals
- 7) indicate relationships to other features of the Work
- 8) highlight information applicable to the Work and/or delete information not applicable to the Work.

2. Engineer's Responsibilities:

- a. The Engineer will not review Shop Drawings (including working drawings and product data) that do not include the Contractor's approval stamp and the required certification statement. Such submittals will be returned to the Contractor, without action, for correction.
- b. Partial shop drawings (including working drawings and product data) will not be reviewed. If, in the opinion of the Engineer, a submittal is incomplete, that submittal will be returned to the Contractor for completion. Such submittals may be returned with comments from Engineer indicating the deficiencies requiring correction.
- c. If shop drawings (including working drawings and product data) meet the submittal requirements, Engineer will forward copies to the appropriate reviewer(s). Otherwise, noncompliant submittals will be returned to the Contractor without action - with the Engineer retaining one copy.
- d. Submittals which are transmitted in accordance with the specified requirements will be reviewed by the Engineer within the time specified herein. The time for review will commence upon receipt of submittal by Engineer.

3. Electronic Transmission:

- a. Action submittals are to be transmitted by electronic means and meet all of the following conditions:
 - 1) The above-specified transmittal form is included.
 - 2) The submittal contains no pages or sheets larger than 11 inches by 17 inches.
 - 3) The entire submittal is included in a single file.
 - 4) The electronic files are PDF format (with printing enabled).
4. For Submittals that require certification, corporate seal, or professional embossment (i.e., P.E.s, Surveyors, etc.) transmit three hard-copy originals to the Engineer.

B. Informational Submittals:

1. Contractor's Responsibilities:

- a. Number of copies: Submit one electronic copy, unless otherwise indicated in individual Specification sections
- b. Refer to individual technical Specification Sections for specific submittal requirements.

2. Engineer's Responsibilities:

- a. The Engineer will review each informational submittal within 15 days. If the informational submittal complies with the Contract requirements, Engineer will file

for the project record and transmit a copy to the Owner. The Engineer may elect not to respond to Contractor regarding informational submittals meeting the Contract requirements.

- b. If an informational submittal does not comply with the Contract requirements, Engineer will respond accordingly to the Contractor within 15 days. Thereafter, the Contractor shall perform the required corrective action, including retesting, if needed, until the submittal, in the opinion of the Engineer, is in conformance with the Contract Documents.

3. Electronic Transmission:

- a. Informational submittals are to be transmitted by electronic means and meet all of the following conditions:
 - 1) The above-specified transmittal form is included.
 - 2) The submittal contains no pages or sheets larger than 11 inches by 17 inches.
 - 3) The entire submittal is included in a single file.
 - 4) The electronic files are PDF format (with printing enabled).

- 4. For Submittals that require certification, corporate seal, or professional embossment (i.e., P.E.s, Surveyors, etc.)) transmit three hard-copy originals to the Engineer.

3.04 ATTACHMENTS

A. P.E. CERTIFICATION FORM.

ATTACHMENT A

P.E. CERTIFICATION FORM

The undersigned hereby certifies that he/she is a professional engineer registered in the State of Connecticut and that he/she has been employed by

_____ to design
(Name of Contractor)

(Insert P.E. Responsibilities)

in accordance with Section _____ for the

_____.
(Name of Project)

The undersigned further certifies that he/she has performed the design of the _____

_____, that said design is in conformance
(Name of Project)

with all applicable local, state and federal codes, rules, and regulations, and that his/her signature and P.E. stamp have been affixed to all calculations and drawings used in, and resulting from, the design.

The undersigned hereby agrees to make all original design drawings and calculations available to the

_____.
(Insert Name of Owner)

or Owner's representative within seven days following written request therefor by the Owner.

P.E. Name

Contractor's Name

Signature

Signature

Address

Title

Address

END OF SECTION

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SECTION 01310 CONSTRUCTION SCHEDULING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 PROGRAM DESCRIPTION

- A. Within ten days after the effective date of Agreement, provide and submit to the Engineer for approval, the Baseline Schedule the Contractor plans to maintain in order to construct the work with the time allotted successfully. This Schedule shall be a time-scaled Bar Chart in order of early start and shall account for all the work of the Contractor. In addition to all reasonably important construction activities, the Schedule shall provide for the proper sequence of construction considering the various crafts, purchasing time, submittal approval, material delivery, equipment fabrication, and similar time-consuming factors. Failure to supply the construction schedule on time will be cause for withholding progress payments.
- B. Following receipt by the Engineer of the Baseline Schedule, a pre-construction conference will then be held between the Owner, Engineer, Contractor, Connecticut and the Public Works department to review and, if necessary, revise the Schedule to afford ample time to perform the work in the proper sequence and construction operations. The Engineer shall approve the schedule in accordance with paragraph 2.05 of the General Conditions of the Contract.
- C. The Contractor bears full responsibility for scheduling all phases and stages of the work to ensure its successful execution and completion with the time specified in accordance with all provisions of these Specifications.
- D. Update the Baseline Schedule monthly (Progress Schedule) and shall submit it to the Engineer in duplicate. The monthly Schedule update shall include the following items:
 - 1. Activities that are completed or in the process are to be identified.
 - 2. Restraints imposed by material deliveries, precedent activity durations or schedule
 - 3. Actual start and completion dates are to be shown.
 - 4. Shop Drawing Status

1.03 SUBMITTALS

- A. Submit schedules, and revisions including graphics, as specified herein.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 BASELINE SCHEDULE

- A. Baseline Schedule – A schedule. Prepared and maintained by the Contractor, describing the sequence and duration of the activities comprising Contractor’s plan to accomplish the Work within the Contract Times. This schedule does not need to be address specific but shall address the prescribed scope of work and capture the minimum monthly requirements.
- B. Submit the Baseline Schedule before starting any work, in accordance with Article 2.05 of the General Conditions.
- C. The Baseline Schedule must account for the following:
 - 1. Time for review and approval of submittals.
 - 2. Schedule of Values preparation and approval
 - 3. Public outreach efforts to obtain the Right of Entry (ROE) and Release Form for Galvanized Service Line Replacement.
 - 4. Completion of outreach (4 months prior to contract end date) per Section 01170.
 - 5. Completion of scheduling efforts no later than three months before end of the Contract per Section 01170.
 - 6. Start of replacements no later than third month (60 days from contract award) of the contract meeting the monthly replacement quotas as stated in Section 01010.
 - 7. Minimum crews as stated in Section 01010 showing anticipated replacements by week and by month.
 - 8. Estimated construction duration for each crew in each area.
 - 9. Completion of replacements no later than two months before the end of the Contract per Section 01170.
 - 10. Traffic management/detour plan preparation and approval.
 - 11. Permit timeline (traffic, road opening, dig safe, plumbing, etc.).
 - 12. Final sidewalk restoration schedule.
 - 13. Final pavement restoration schedule (milling and paving).
 - 14. Final landscape restoration schedule.
 - 15. Special dates – e.g. small business Saturday after Thanksgiving, school breaks, etc.

16. Anticipated no work days.

3.02 PROGRESS SCHEDULE

- A. Progress Schedule is a monthly update to the Baseline schedule.
- B. Review the Progress Schedule with the Engineer periodically. Such review shall be made on a monthly basis or more frequently as required by the Engineer. If the Contractor fails to adhere to any part of the progress schedule, the progress schedule shall be updated by the Contractor to reflect the accurate progress of work.
- C. At least 10 days before submission of the second Application for Payment (allowing for a month of replacements), a conference, attended by the Contractor, Engineer, and others as appropriate, will be held to review the Progress Schedule submitted in accordance with this Section. No progress payment will be made to the Contractor until acceptable schedules are submitted to the Engineer.
 - 1. The Progress Schedule will be acceptable to the Engineer if it provides an orderly progression of the Work to completion within the Contract duration.
 - 2. The Progress shall be inclusive, but not limited to the following:
 - a. Submittal schedule update.
 - b. Number of outreach activities completed.
 - c. Status of e-Builder updates.
 - d. Number and type (full, public side only, private side only, or test pit) of planned replacement activities per Baseline Schedule.
 - e. Number of actual replacements completed.
 - f. Crew Size – planned vs actual.
 - g. Customer complaints received and status.
 - h. Call Before Your Dig permits and status.
 - i. Safety updates.
 - 3. Payment to be withheld if Progress Schedules are not provided.

3.03 2-WEEK LOOK AHEAD

- A. 2-Week Look Ahead Schedule shall be provided weekly (but no later than 5:00 PM on Thursday of each week). Adhere to the Look Ahead Schedule and provide written updates whenever the schedule changes due to weather or any other reason.
 - 1. At a minimum the 2-week Look Ahead shall have the following items listed in a tabular form:
 - a. Project Name, and project number, Contractors Name.
 - b. Detailed day-to-day schedule of the task identified in the overall work schedule.
 - c. Identify crew and address for each task.
 - d. Identify any outages, closures and control activities.
 - e. Start and end dates of the week shall be clearly displayed by days of the week.
 - f. Anticipated addresses for lead service line replacements.
 - g. Anticipated work areas for traffic control and if required, encouraging new registrants.

- h. Call Before You Dig utility mark-out number.
- i. Hour of day that work will be performed (within a 4 hour window).
- j. Type of replacement (full, public side only, private side only, or test pit).
- k. Name of licensed plumber to be utilized.
- l. Proposed method of traffic control.

- 2. Payment to be withheld if weekly updates to the 2-week look ahead are not being provided.

3.04 SCHEDULE UPDATES AND STATUS REPORTS

- A. Provide Monthly Schedule Updates with each application for payment. Unless approved otherwise by the Owner and Engineer, the Date for the Monthly Status Reports shall be the end of the respective payment period.
- B. Prior to generating each month's status report, meet with the Engineer to agree to the percent complete of each network activity.

3.05 DELIVERABLES

- A. Unless approved otherwise by the Engineer, all schedule submittals shall be in electronic format (PDF or Excel as noted) and in color on pages no larger than 11-inches by 17-inches and may be divided into as many separate sheets as required.
- B. Baseline Schedule: Submit one electronic copy (PDF) to the Owner and Engineer.
- C. 2-Week Look Ahead: Submit one electronic copy (PDF or Excel) to the Owner and Engineer.
- D. Monthly Progress Schedule Updates: Submit one electronic copy (Excel spreadsheet) to the Owner and Engineer.

3.06 PROGRESS REPORTING

- A. The Monthly Schedule Update will be discussed at each progress meeting with submission in accordance with Paragraph 3.02 of this Section.
- B. The two-week look ahead shall be provided via e-mail every Thursday by 5:00 P.M. The Engineer shall provide the Contractor with a distribution list of who this two-week look ahead schedule should be sent to.

3.07 RESPONSIBILITY FOR SCHEDULE COMPLIANCE

- A. Whenever it becomes apparent from the current schedule that delays occurred and the contract completion date will not be met, or when so directed by Owner, submit to the Owner for approval, a written statement of the steps intended to take to remove or arrest the delay in the accepted schedule at no additional cost to the Owner, including:
 - 1. Increase construction manpower in such quantities and crafts,
 - 2. Increase the number of working hours per shift, shifts per day, working days per week,
 - 3. Increase the amount of construction equipment, and/or

4. Reschedule activities to maximize the concurrence of activities and comply with the revised schedule.

- B. If when so requested by the Owner, failure to submit a written statement of the steps intended to take or should fail to take such steps as approved by the Engineer, the Engineer may direct the Contractor to increase the level of effort in manpower (trades), equipment and work schedule (overtime, weekend and holiday work, etc.) to be employed by the Contractor in order to remove or arrest the delay to the accepted schedule and the Contractor shall promptly provide such level of effort at no additional cost to the Owner.

3.08 ADJUSTMENT OF CONTRACT SCHEDULE AND COMPLETION TIME

- A. If the Contractor wants or needs to make changes in their execution of the construction schedule that would affect schedule, the Contractor shall notify the Engineer in writing stating what changes are proposed and the reasons for the changes. If the Engineer approves such changes, the Contractor shall revise and submit a revised schedule for acceptance - without additional cost to the Owner. The schedule shall be adjusted by the Contractor only after prior acceptance of their proposed changes. Adjustments may consist of changing portions of the activity sequence, activity durations, division of accepted activities, or other adjustments as may be accepted by the Engineer; however, the addition of extraneous, non-working activities and activities that add unacceptable restraints to the schedule will not be allowed.
- B. Shop drawings that are not approved on the first submittal will require the addition of network activities for the re-submittals.
- C. Equipment that does not pass the specified tests will require the addition of network activities for the retesting.
- D. The contract completion time will be adjusted only for causes specified in this Contract. In the event the Contractor requests an extension of any contract completion date, the Contractor shall furnish such justification and supporting evidence as the Owner may deem necessary to determine whether the Contractor is entitled to an extension of time under the provisions of this Contract. After receipt of such justification and supporting evidence, the Owner shall perform an assessment or evaluation of the appropriate change in contract time based upon the currently accepted schedule and on all data relevant to the extension. Inexcusable delays (attributable to the Contractor) and non-critical delays (delays to activities which, according to the schedule, do not affect any contract completion date) shall not be the basis for a change in contract time. The Owner will provide a written recommendation based on its assessment, with a copy to the Contractor. The Contractor shall not change any fixed contract milestones or required completion dates without the approval of the Owner, evidenced by the execution of a contract change order. However, the Contractor should make a note of such requests for changes in contract time in the narrative of monthly schedule status reports.
- E. Each request for a change in any contract completion date shall be submitted by the Contractor to the Owner in accordance with the notification requirements stipulated in the Contract Documents. No time extension will be granted for requests that are not submitted in accordance with the Contract requirements.
- F. Total float in the accepted schedule belongs to the project; i.e., either the Owner or Contractor may take advantage of available total float on a first-come, first-served basis. Therefore, without obligation to extend either the overall completion date or any intermediate completion dates set

out in the schedule, the Owner may initiate changes to the work or delay work that absorb available total float existing at the time of the change or delay. Owner-initiated changes or delays that affect the schedule shall be the sole grounds for extending (or contracting) contract completion dates or fixed milestones.

END OF SECTION

SECTION 01322
PHOTOGRAPHIC DOCUMENTATION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required to provide photographic documentation of the Project as specified herein.

1.03 SUMMARY

- A. The section includes administrative and procedural requirements for the following:
 - 1. Land-based preconstruction photographs.
 - 2. Land-based final completion construction photographs.

1.04 RELATED WORK

- A. Submittal procedures are included in Section 01300.
- B. Project Record Documents are included in Section 01720.

1.05 REFERENCES

- A. Not Used.

1.06 SUBMITTALS

- A. Digital Photographs land-based: Submit image files within three days of taking photographs.
 - 1. File Format: Minimum 3200 by 2400 pixels, in unaltered original files, uncropped, date and time stamped, in a folder named address and date of photograph, with the following required photos by replacement type:

Replacement Type	Required Photos – Pre-construction	Required Photos – Post-construction
Full Replacement	<ol style="list-style-type: none"> Existing condition upon arrival including adjacent properties, buildings on adjacent properties, existing paving, curb, and sidewalks. One photo should be taken capturing the entire width of the road and taken from across the street from where work is to take place. Additional photos as required to record pre-existing settlement or cracking of adjacent structures or pavements and improvements. Existing materials on either side of curb stop, ensuring the material on each side of the curb stop is clearly visible and label which side on a white board Existing corporation stop Existing curb stop Existing piping at foundation and water meter Existing interior area of work 	<p>New connection at corporation stop Materials on either side of curb stop after replacement New curb stop New ball valve(s), piping, water meter connection, service line entering at the foundation, and appurtenances inside home Yard restoration photo Sidewalk restoration photo Photo of street patch Interior area of work post-construction Photo after final paving Photo of pitcher filter</p>
Private Side Only Replacement	<ol style="list-style-type: none"> Existing condition upon arrival including adjacent properties, buildings on adjacent properties, existing paving, curb, and sidewalks. One photo should be taken capturing the entire width of the road and taken from across the street from where work is to take place. Additional photos as required to record pre-existing settlement or cracking of adjacent structures or pavements and improvements. Existing materials on either side of curb stop, ensuring the material on each side of the curb stop is clearly visible and label which side on a white board Existing piping at foundation and water meter <p>Existing interior area of work</p>	<ol style="list-style-type: none"> Materials on either side of curb stop after replacement New ball valve(s), piping, water meter connection, service line entering at the foundation, and appurtenances inside home Yard restoration photo Sidewalk restoration photo Interior area of work post-construction Photo of pitcher filter
Public Side Only Replacement	<p>Existing condition upon arrival including adjacent properties, buildings on adjacent properties, existing paving, curb, and sidewalks. One photo should be taken capturing the entire width of the road and taken from across the street from where work is to take place. Additional photos as required to record pre-existing settlement or</p>	<p>New fitting at corporation stop Materials on either side of curb stop after replacement New curb stop Sidewalk restoration photo Photo of street patch Photo after final paving Photo of pitcher filter</p>

Replacement Type	Required Photos – Pre-construction	Required Photos – Post-construction
	cracking of adjacent structures or pavements and improvements. Existing materials on either side of curb stop, ensuring the material on each side of the curb stop is clearly visible and label which side on a white board Existing curb stop Existing corporation stop	
Test Pit	<ol style="list-style-type: none"> Existing condition upon arrival including adjacent properties, buildings on adjacent properties, existing paving, curb, and sidewalks. One photo should be taken capturing the entire width of the road and taken from across the street from where work is to take place. Additional photos as required to record pre-existing settlement or cracking of adjacent structures or pavements and improvements. Existing materials on either side of curb stop, ensuring the material on each side of the curb stop is clearly visible and label which side on a white board 	<ol style="list-style-type: none"> Pipe scratched and magnet Yard restoration photo Sidewalk restoration photo

- The photos of the existing conditions upon arrival, yard restoration, and the street patch should include the address number on the building legible and in clear focus. If no number is visible, then Contractor shall provide a white board and write the address on board with minimum number height of 3-inches.
- Provide a whiteboard with the address, replacement type, date of work, materials observed on which side, and identification of private side and public side in all photos where the pipe is exposed. The service line materials should be identifiable in all photos. Remove soil such that visual identification of materials from photos is possible.
- Submit digital photographs through e-Builder.
- Any additional photos shall be provided on a file sharing website such as Dropbox or Google Drive with individual file folders for each address. Organize folders by city, street, and address number, in that order and have separate folders for pre and post replacement.
- At the completion of the project, provide all photos on two, mirrored media storage devices (including USB drives or portable solid-state drives). Package each drive, clearly and indelibly labeled using self-adhesive labels specifically designed for labeling of media storage devices. Include on the label the project name and number, Owner and the time period covered by the photographs contained on the disc.
- Provide the following identifying information with each image:

- a. Name of project.
- b. Name of the photographer.
- c. Name of contractor.
- d. Date and time photograph was taken.
- e. GPS coordinates.
- f. The Metadata associated with the photo which is stored in the photo file.

B. Video Recordings: Submit video recordings within seven days of recording.

File Format: Minimum resolution of 720p (1280 x 720, progressive) in unaltered original files, in a folder named address and date of the video.

1. Submit video recordings in digital video on media storage devices in a format acceptable to Engineer (Mpg, .mov, or MP4).
2. Two, mirrored media storage devices (including USB drives or portable solid-state drives)
3. Package each media storage device, clearly and indelibly labeled using self-adhesive labels specifically designed for labeling of discs or media storage devices. Include on the label the project name program number, Owner and the time period covered by the photographs contained on the disc.

1.07 QUALITY ASSURANCE

- A. Photographs are to clearly show the Work. Exhibit correct exposure and focus, accurate color balance, maximum depth of field, minimal optical distortion, and minimal noise.

1.08 USAGE RIGHTS

- A. All photos taken for the purpose of documenting construction and project related work are to be the Owner's property for unlimited reproduction of photographic documentation.

PART 2 PRODUCTS

2.01 PHOTOGRAPHIC MEDIA

- A. Provide digital photographs produced by a digital camera.
- B. Digital Camera: Have a minimum image resolution of 12 megapixels and produce images in JPEG (.JPG) format with image dimensions of not less than 3200 by 2400 pixels.

2.02 DIGITAL VIDEO RECORDINGS:

- A. Digital Video Camera: Have a minimum resolution of 720p (1280 x 720, progressive).
- B. Provide video recordings in a common digital video format such as MP4. The minimum resolution of all video files shall be 720p (1280 x 720, progressive).

PART 3 EXECUTION

3.01 CONSTRUCTION PHOTOGRAPHS

- A. General: Expose service line materials from debris and soil such that the materials can be easily identified from photographs. Photographs that, in the Engineer's opinion, do not meet these quality criteria will not be accepted and shall be re-taken at no additional cost to the Owner.
- B. Phone/Tablet/Digital Images: Submit digital images exactly as originally recorded in the phone/tablet digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
- C. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software except in the case of captioning the photograph with the address, replacement type, date of work, materials observed on which side, and identification of private side and public side in all photos where the curb stop is exposed.
- D. Pre-construction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Engineer.
 - 1. Flag excavation areas before taking construction photographs.
 - 2. Provide all photos listed in Section 1.05 above.
- E. Post-Construction Photographs: Duplicate the location of the photo taken for pre-construction or as directed by Engineer. Follow all photo requirements as listed in Section 1.05 above.

3.02 CONSTRUCTION VIDEO RECORDINGS

- A. Video Recordings:
 - 1. Produce bright, clear, sharp pictures with accurate colors and free from distortion, excessive shake, or any other form of picture imperfection. Video recordings that, in the Engineer's opinion, do not meet these quality criteria will not be accepted and shall be re-recorded at no additional cost to the Owner.
 - 2. Display continuous running time and date.
- B. Pre-construction Video Recording: Before starting excavation, demolition or construction, the Contractor is advised to record video of Project site and surrounding properties from different vantage points. Contractor is advised to record individual videos of each street in the Work Area prior to beginning work. Each video file is to be captioned with its respective street name.
- C. Post-Construction Videos: Retrace path of preconstruction video or as directed by Engineer.
- D. Additional Photographs or video: Engineer or Owner may request photographs or videos in addition to photographs specified.
 - 1. Three days' notice will be given, where feasible.
 - 2. In emergency situations, take additional photographs within 24 hours of request.

3. Circumstances that could require additional photographs or videos include, but are not limited to, the following:
 - a. Immediate follow-up when on-site events result in construction damage or losses.
 - b. Substantial Completion of a major phase or component of the Work.
 - c. Extra-record photographs at the time of final acceptance.
 - d. Owner's request for special publicity photographs.

END OF SECTION

SECTION 01370 SCHEDULE OF VALUES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 REQUIREMENTS INCLUDED

- A. Submit a Schedule of Values allocated to the various portions of the work, within ten (10) days after the effective date of the Agreement.
- B. Upon request of the Engineer or Owner provide supporting data which will substantiate the correctness of values.
- C. The accepted Schedule of Values shall be used only as the basis for the Contractor's Applications for Payment.
- D. The Schedule of Values shall include an item for restoration that is at minimum 50 percent of the unit price for each of the replacement bid items (Bid Items 1A) in accordance with Section 01025 – Measurement and Payment.

1.03 RELATED REQUIREMENTS

- A. Contract Agreement and General Conditions of the Construction Contract are included in Division 00.
- B. Application for Payment is included in Section 01026.

1.04 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Type schedule on an 8-1/2-inch by 11-inch or 8-1/2-inch by 14-inch white paper; Contractor's standard forms and the automated printout will be considered for approval by the Engineer upon Contractor's request. Identify schedule with:
 - 1. Title of Project and location.
 - 2. Owner and Project Number.
 - 3. Name and Address of Contractor.
 - 4. Contract designation.
 - 5. Date of submission.
- B. The schedule shall list the installed value of the component parts of the work in sufficient detail to serve as a basis for computing values for progress payments during construction.

- C. For each major line item list sub-values of major products or operations under the item.
- D. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
- E. The sum of all values listed in the schedule shall equal the total Contract Sum.
- F. Contractor's Schedule of Values will be acceptable to the Owner as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01410
TESTING AND TESTING LABORATORY SERVICES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 EQUIREMENTS INCLUDED

- A. Employ and pay for services of an Independent Testing Laboratory to perform testing specifically indicated in the Contract Documents and upon approval of the Engineer.
 - 1. Perform all inspections and tests required by the Contract Documents.
 - 2. Perform all inspections and tests required by laws, ordinances, rules, regulations, or orders of public authorities
 - 3. Cooperate with the laboratory to facilitate the execution of its required services.
 - 4. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the work of the Contract.
 - 5. Neither observations by the Engineer, nor inspections, tests, or approvals by other than the Contractor, shall relieve the Contractor from his obligation to perform the work in accordance with the requirements of the Contract Documents.
- B. The cost of this technician to be on-site as specified in Section 01010 – Summary of Work and all test reports shall be paid through Bid Item 1I Soils Testing and Laboratory Services, as applicable.

1.03 RELATED REQUIREMENTS

- A. Conditions of the Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.
- B. Respective Sections: Certification of products.
- C. Each Section listed: Laboratory tests required and standards for testing.
- D. Testing Laboratory inspection, sampling, and testing is required for but not limited to the following:
 - 1. Trenching, Backfilling, and Compaction are included in Section 02221.
 - 2. Granular Fill Materials is included in Section 02230.
 - 3. Concrete is included in Section 03301.

1.04 SUBMITTALS

- A. Submit to the Engineer in accordance with Section 01300, the names, location and price list of three testing laboratories that meet the following qualifications.
 - 1. The laboratory shall meet “Recommended Requirements for Independent Laboratory Qualifications,” published by American Council of Independent Laboratories.
 - 2. The laboratory shall be authorized to operate in the State of Connecticut.
 - 3. The laboratory is required to maintain Professional Liability Insurance throughout the project.
 - 4. The laboratory shall submit a copy of the report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during the most recent tour of inspection, with a memorandum of remedies of any deficiencies reported by the inspection.
 - 5. Testing Equipment shall be calibrated at intervals recommended by the equipment manufacturer by devices of accuracy that are traceable to either the National Bureau of Standards or accepted values of natural physical constants.
 - 6. The Engineer will select one (1) of the three (3) qualified testing firms, which the Contractor shall employ during the course of the Contract.

1.05 LABORATORY DUTIES

- A. Cooperate with Engineer and Contractor; provide qualified personnel after due notice.
- B. Perform specified inspections, sampling, and testing of materials and methods of construction:
 - 1. Comply with specified standards.
 - 2. Ascertain compliance of materials with requirements of Contract Documents.
- C. Secure and deliver to the laboratory adequate quantities of representative samples of materials proposed to be used and which require testing.
- D. Promptly notify Engineer and Contractor of observed irregularities or deficiencies of work or products.
- E. Promptly (but no longer than two (2) days after work has been completed) submit an electronic report of each test and inspection to Engineer. Each report shall include:
 - 1. Date Issued.
 - 2. Project title and number.
 - 3. Testing laboratory name, address, and telephone number.
 - 4. Name and signature of the laboratory inspector.

5. Date and time of sampling or inspection.
6. Record of temperature and weather conditions.
7. Date of the test.
8. Identification of product and specification section.
9. Location of sample or test in the Project.
10. Type of inspection or test.
11. Results of tests and compliance with the Contract Documents.
12. Interpretation of test results, when requested by Engineer.

F. Perform additional tests as required by Engineer, Owner or Third Party Inspector.

1.06 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. The laboratory is not authorized to:
1. Release, revoke, alter or enlarge on requirements of Contract Documents.
 2. Approve or accept any portion of the work.
 3. Perform any duties of the Contractor.

1.07 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel and provide access to work.
- B. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete and other materials mixes which require control by the testing laboratory.
- D. Materials and equipment used in the performance of work under this Contract are subject to inspection and testing at the point of manufacture or fabrication. Standard requirements for quality and workmanship are indicated in the Contract Documents. The Engineer may require the Contractor to provide statements or certificates from the manufacturers and fabricators that the materials and equipment provided by them are manufactured or fabricated in full accordance with the standard specifications for quality and workmanship indicated in the Contract Documents. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the Contractor, and no extra charge to the Owner shall be allowed on account of such testing and certification.
- E. Furnish incidental labor and facilities:
1. To provide access to work to be tested.

2. To obtain and handle samples at the project site or at the source of the product to be tested.
 3. To facilitate inspections and tests.
 4. For storage and curing of test samples.
- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
1. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to the Contractor's negligence.
- G. Employ and pay for the services of the same or a separate, equally qualified independent testing laboratory to perform additional inspections, sampling, and testing required for the Contractor's convenience.
- H. Arrange for submittals of test results directly from the laboratory to the Engineer.
- I. The Contractor shall pay for the laboratory costs directly to the testing firm for all test and subsequent retests as a result of failed tests until the test results meet the requirements of the Contract Documents.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 CONTRACTOR'S CONVENIENCE TESTING

- A. Inspection or testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

3.02 COOPERATION WITH TESTING LABORATORY

- A. Representatives of the testing laboratory shall have access to Work at all times. The Contractor shall provide facilities for such access in order that the laboratory may properly perform its functions.

3.03 SCHEDULES FOR TESTING

- A. Establishing Schedule:
1. A technician from the approved Laboratory shall be on-site at all times when backfilling of any trench is occurring and when any temporary and/or final pavement restoration is occurring.
 2. By advance discussion with the testing laboratory selected by the Owner, determine the time required for the laboratory to perform tests and to issue each of its findings.

3. Provide all required time within the construction schedule.

B. Revising Schedule:

When changes of construction schedule are necessary during construction, coordinate all such changes in schedule with the testing laboratory as required.

C. Adherence to Schedule:

When the testing laboratory is ready to test according to the determined schedule but is prevented from testing or taking specimens due to the incompleteness of the work, all extra costs for testing attributable to the delay may be back-charged to the Contractor and shall not be borne by the Owner.

3.04 TAKING SPECIMENS

- A. All specimens and samples for testing, unless otherwise provided in these Contract Documents, will be taken by the testing laboratory; all sampling equipment and personnel will be provided by the testing laboratory, and all deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

END OF SECTION

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SECTION 01500 TEMPORARY FACILITIES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. The Contractor shall provide any temporary facilities, equipment, utilities and appurtenances specified or necessary to properly complete the work.
- B. Upon removal of any temporary facilities, equipment, or appurtenances, the Contractor shall restore the site, location, structure, etc. to its proper condition and make all necessary repairs acceptable to the Owner.
- C. Security and protection of work, materials, and equipment are the responsibility of the Contractor.
- D. The Contractor shall confine all apparatus, materials, supplies, machinery, and equipment to areas designated or approved by the Owner, and do not unreasonably encumber the premises/work site with such apparatus, materials, supplies, etc. Keep the premises/work site clean, neat and free of litter and promptly remove and dispose of all debris resulting from the operation. Confine operations to the property limits of the Owner and do not infringe upon abutting properties; save the Owner harmless from the claims of any abutting or adjacent property owners for damages resulting from operations. Upon completion of work, completely clean and restore the site to a condition acceptable to the Owner.
- E. Providing equipment and temporary facilities needed to perform and complete the work as required by the Contract Documents is the responsibility of the Contractor. Payment for such will be the sole responsibility of the Contractor.
- F. In situations where the facility is owned by Owner, the Contractor may, within reason, use power, water, and telephone available at the facility. The Owner reserves the right to restrict this use to what is necessary and reasonable.
- G. The Contractor shall provide its own office and storage facilities in the work area, as needed at no additional cost to the Owner.
- H. Contractor shall provide sanitary facilities for the construction crews. Contractor shall not use the bathroom facilities of the customers and/or property owners.
- I. At the end of each day the Contractor shall remove all debris, stored material, equipment, and generally sweep the site(s), and all excavations shall be paved with temporary bituminous pavement or trench plated. Extensive use of trench plates overnight shall not be allowed.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01576
TRAFFIC CONTROL

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Public safety and convenience require the Contractor to provide trained traffic control personnel to direct and control traffic within the location of work under this Contract. Uniformed Police officers shall be used for traffic control where required by the Town. If uniformed police officers are not available or are not required by the Town, flaggers may be used when approved by the agency having jurisdiction over the road.
- B. Arrange with the Police Department for traffic direction services whenever work is conducted within a roadway or whenever traffic flow is restricted as a result of work performed under this Contract. The Contractor shall also be responsible for coordinating and scheduling with the Police Department whenever work is to be conducted within a roadway or whenever traffic flow is restricted as a result of work performed under this Contract.
- C. The traffic control services required herein are intended to ensure public safety by the direction and control of traffic. Traffic control personnel are not intended to serve as watchmen or security to protect the Contractor's equipment and material or to warn pedestrians of such hazards as open trenches or manholes. It is solely the Contractor's responsibility to guard open excavations by erecting suitable barriers by day and lights by night.
- D. Nothing contained herein shall be construed as relieving the Contractor of any of his/her responsibilities for the protection of persons and property under the terms of the Contract.
- E. All payments to the Uniformed Traffic Officers under this Contract shall be in accordance with the General Statutes of the State of Connecticut and any amendments thereto. On a weekly basis, the Contractor shall submit to the Engineer a summary of the hours each officer provided traffic control services. Owner shall be responsible for reimbursing the Contractor for the cost charged by the jurisdiction for police officers' time, with no markup by the Contractor. Reimbursement for police officers' time within a given month shall coincide with the corresponding month's Payment Application. The Contractor will be responsible for paying the police cost, and the police cost from the Town shall be included in the Contractor's voucher for payment without overhead or profit and no other markup. Payment for flaggers will also be paid for in the same manner without overhead or profit under a separate allowance item.
- F. Prior to submitting their bid on the project, contact all agencies having jurisdiction over the project including, but not limited to the Town of Putnam, Town of Woodstock, and CTDOT in order to determine the traffic control requirements and costs of same. The cost of traffic control is included in appropriate bid item.
- G. Provide the Police Departments with construction schedules on a biweekly basis showing work that requires traffic control. In the event the construction schedule is revised after submittal to

the Police Department, the Contractor shall provide at least 24 hours' notice before commencing the unscheduled work.

- H. Contractor shall be responsible for all snow removal and ice control within the construction zone throughout the duration of construction.
- I. No road shall be closed to traffic without the prior consent of the Engineer, local Town, or CTDOT, as applicable.
- J. Traffic control, including but not restricted to signing, devices and message board, shall be provided for all road openings by the Contractor in accordance with Town and State standards.

1.03 REQUIREMENTS

- A. All traffic control work performed by the Contractor shall be in accordance with the Manual on Uniform Traffic Control Devices (latest edition), the latest edition of the Connecticut Department of Transportation Highway Standards, the Details in Appendix B, and these Specifications. Where reference is made to one of the aforementioned publications, the revision in effect at the time of bid opening shall apply.
- B. Protect the traveling public and personnel by adhering to the requirements of Title 14, Motor Vehicles Code of the State of Connecticut. The Contractor shall be liable for any neglect to safeguard the traveling public.
- C. Furnish, install, transport, operate, maintain equipment, repair and replace; services, and personnel, with traffic control and protective devices, as required to expedite vehicular traffic flow during construction.
- D. Follow the traffic control requirements shown in the Contract Documents detailing all temporary changes in traffic control equipment, street or road closures, detours, etc. Make every effort to adhere to these requirements. The Owner and Engineer reserve the right to modify traffic control requirements through the course of the Contract.
- E. Remove temporary equipment and facilities when no longer required and restore grounds to original or to specified conditions.
- F. Notify all Customers at least 72 hours in advance of any work that will interfere with access to their residence or place of business.
- G. No road shall be closed to traffic without the prior consent of the Engineer and the Owner.
- H. Traffic control, including but not restricted to signing and devices, shall be provided for all openings in roads by the Contractor in accordance with Owner and State standards.
- I. Private side only replacements that do not require cutting into the roadway may be done throughout the year with approval from the local municipality. If a test pit is performed during the winter at a private side location and the utility side is found to be lead, Contractor shall perform replacement and provide temporary restoration and complete final restoration when weather permits.
- J. Special work hour limitations are discussed in Section 01014.

1.04 MINIMUM REQUIREMENTS FOR TRAFFIC CONTROL

- A. Provide for access to all buildings including business and parking areas at all times. This shall include but is not limited to schools, churches, hospitals, urgent care centers, polling stations, and grocery stores. The Contractor shall allow for the maintenance of a minimum of one – 11-foot lane of traffic, in one direction, at all times.
- B. Make every reasonable effort to avoid detours. No detour shall be allowed without prior approval from the Engineer and the Owner. A detailed Traffic Control Detour Plan shall be submitted by the Contractor to the Engineer and Owner showing schedule, signing and control for the proposed detour. Said plan(s) shall be submitted at least five workdays prior to the proposed detour and shall be subject to the review and approval of the Engineer and Owner.
- C. Traffic control and road closings are under the direct control of the Police Department.
- D. Normal drainage shall be maintained. The pavement shall be maintained in broom-swept clean condition, and all work shall be cleaned up at the close of operations each day.
- E. During non-working hours, all excavations shall be either back-filled or steel-plated, and all roadways shall be kept completely clear of any obstructions to traffic. Steel plates are to be used for no more than five work days and should be backfilled before the weekend. No barricades shall be left within the roadway at night when work is not in progress.
- F. If the Contractor is notified of hazardous construction practice, violation of a regulation or motor vehicle code or if traffic volumes become excessive, all operations shall be summarily discontinued and immediate corrective action shall be taken to the satisfaction of regulator before work can resume.
- G. In the event an obstruction blocks pedestrian traffic, provide a safe passage area for pedestrians.
- H. When the Contractor will be performing an operation which requires the closing of a lane of traffic, even for brief periods of time, close the lane and so mark it with the necessary Protections. Flagmen shall be placed in advance of all lane closures. Additional flagmen shall be placed anywhere in the work area that trucks or other vehicles enter or leave the traffic stream. The cost of flagmen shall be included in unit price. The local police departments shall determine the number of flagmen which may be required by the Contractor.

1.05 TRAFFIC CONTROL

- A. All traffic control shall be performed in accordance with all Federal, State, and local laws, codes, rules and regulations.
- B. All individuals performing traffic control shall be properly equipped and trained. Where required by the road opening permit or as required by the agencies have jurisdiction over the road a Uniformed Police officer for Traffic Control shall be paid for under the Uniformed Police Traffic Control Allowance (Item 1F) on the Bid Form (Section 00 41 00). Flaggers to be paid for under the Flaggers for Traffic Control Allowance (Item 1G).
- C. Traffic control shall be used on roads indicated on the map in Appendix A.

- D. A minimum of one trained traffic control person shall be present during all work in public streets. If the setup is such that more than one trained traffic control person is needed to control traffic at any one location, provide the additional personal at no additional cost to the Owner.
- E. The Contractor shall coordinate schedule to for work with the Owner and Engineer in order to accommodate the Town's schedule of festivals and activities that occur in the local municipality. These activities may cause changes in traffic patterns and road closures. Work with Owner and Engineer. Contractor is responsible for being aware of the dates, times and locations of all festivals and activities that may be located in work areas and require adjustments to traffic control and construction schedule.
- F. Personal vehicles shall not be permitted to park in the work area or immediately adjacent thereto.
- G. No construction vehicles shall be left on the street overnight unless approved in writing by the municipality having jurisdiction.

1.06 TRAFFIC CONTROL SUBMITTALS

- A. Maintain traffic on affected roads and streets at all times as specified and required for permit approvals.
- B. Work shall not commence until approval has been obtained from the Police Department, the Engineer, and the Town's Highway Department, and/or any local municipal Traffic Engineering Division. Approval by the Engineer shall be required before the Contractor applies for street occupancy and street opening permits with the Town of Putnam Highway Department. The traffic control plans submitted to and approved by the Engineer shall be the basis of the plans submitted with the permit applications. Revise and resubmit the traffic control plans based on the local municipal review comments as required to receive approval for street occupancy and street opening permits. Approval by the Engineer does not assure approval without revision by the local municipality having jurisdiction. All traffic control work and road closures must abide by permits issued by the local municipality having jurisdiction.
- C. Prior to submitting the traffic control plans to the Engineer, Contractor is to review its proposed traffic control set-up for each work site and work activity with representatives of the local Police Department having jurisdiction. Obtain input from the Police Department regarding the level of police presence and any work hour restrictions on construction activities at the sites.
- D. The traffic control plans shall indicate:
 - 1. Street right-of-way, traffic flow directions, driveway locations, and other site features.
 - 2. The location and arrangement of all traffic control devices, signs, equipment, and personals.
 - 3. Location where temporary no parking signs will be posted. No parking signs shall be dated for a period longer than five calendar days and shall be posted at least 24 hours in advance of work commencing.
 - 4. Legend and description of symbols used.
 - 5. Arrangement and dimensions of work zones, buffer areas, transition zones, and traffic lanes.
 - 6. Location of bypass pumps, hose, and water hose routes and required hose ramps.
 - 7. Anticipated work schedule, including work hours (start and ending times), dates, and duration.

- E. Modifications to approved traffic control plans shall be submitted for approval before being implemented in the field.
- F. See Section 01010 and Section 01046 for related work.
- G. Provide to the Engineer complete copies of approved street permits for each site per Section 01170 prior to commencing work at each site.
- H. Provide to the Engineer written approval from the Police Department and the Town Highway Department prior to commencing work at each site.
- I. The Engineer shall be copied on all correspondence to and from the Police Department and local municipality having jurisdiction concerning obtaining approval of the traffic control plans.

END OF SECTION

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SECTION 01580
PROJECT IDENTIFICATION SIGNS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Provide and install, prior to the start of construction, the project sign(s) indicated below.

PART 2 PRODUCTS

2.01 ENVIRONMENTAL INFRASTRUCTURE PROJECT SIGN

- A. In accordance with Connecticut Drinking Water State Revolving Fund (Connecticut DWSRF) and the Bipartisan Infrastructure Law (BIL) funding signage specifications, two project identification signs, at least eight feet long and four feet high, bearing the emblem of the Department shall be displayed in a prominent location to be discussed at the Pre-Construction Meeting.
- B. The Project Signs shall be constructed as shown on the illustration appended to this specification section. Verify that all information is accurate and current before fabrication of the identification signs.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Signs shall be located at a prominent location in the vicinity of the project selected by the Contractor and approved by the Owner.
- B. All project signs shall be maintained by the Contractor in good condition at all times for the duration of the construction.
- C. Remove all project signs from the construction sites at the conclusion of the work when ordered by the Engineer.

3.02 ATTACHMENT

- A. Project Identification Signs – CT DWSRF Guidelines

END OF SECTION

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

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 State Revolving Fund program 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.

Translations per EPA Order 1000.32

PWSs must ensure that limited English proficient individuals have meaningful access to activities receiving federal funding, consistent with 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.

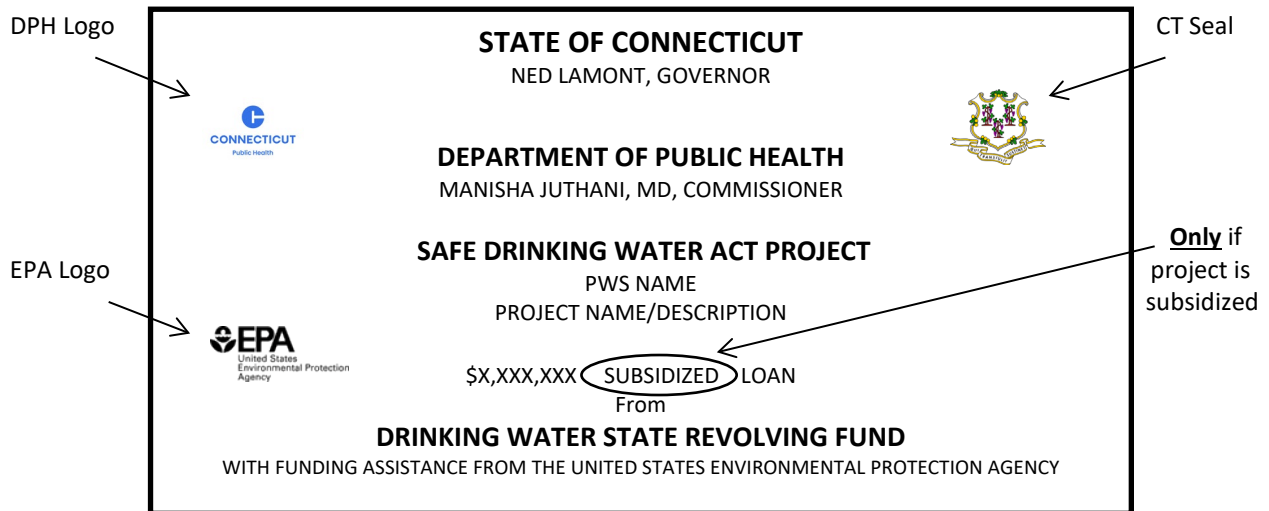
Option 1: Standard Signage

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 community may elect to place a sign advertising a project located at a remote reservoir (intake or pipeline

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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

If the DWSRF will not fund the entire project, such as when a water main project includes sewer work that is not eligible for DWSRF funding, the sign shall either:

1. Not include the non-drinking water portion in the "Project Name/Description"; or
2. Above the amount of the loan add the following: "FUNDED IN PART BY A".

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.

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Project Signage Guidelines**

Option 2: Signage Posted on Website and/or 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.

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.

<p>[Date]</p> <p>[Name of PWS] Receives Drinking Water State Revolving Fund [add "Subsidized" (if applicable)] Loan</p> <p>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.</p>

PWSs that choose this option for signage compliance must receive advance approval from the DPH Drinking Water State Revolving Fund program 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.

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SECTION 01601 CONTROL OF MATERIALS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 APPROVAL OF MATERIALS

- A. Unless otherwise specified, only new materials and equipment shall be incorporated in the work. All materials and equipment furnished by the Contractor shall be subject to the inspection and approval of the Engineer. No material shall be delivered to the work without prior approval of the Engineer.
- B. As specified in Section 01300 - Submittals, the Contractor shall submit to the Engineer, data relating to materials and equipment he/she proposes to furnish for the work. Such data shall be in sufficient detail to enable the Engineer to identify the particular product and to form an opinion as to its conformity to the specifications.
- C. Furnish facilities and labor for handling and inspection of all materials and equipment. If the Engineer requires, either prior to beginning or during the progress of the Work, the Contractor shall submit additional samples or materials for such special tests as may be necessary to demonstrate that they conform to the specifications. Such samples shall be furnished, stored, packed and shipped as directed at the Contractor's expense.
- D. Any delay of approval resulting from the Contractor's failure to submit samples or data promptly shall not be used as a basis of a claim against the Owner or the Engineer.
- E. In order to demonstrate the proficiency of workmen or to facilitate the choice among several textures, types, finishes, and surfaces, the Contractor shall provide such samples of workmanship or finish as may be required.
- F. The materials and equipment used on the work shall correspond to the approved samples or other data.
- G. Certify that the purchased products and materials used by the Contractor, subcontractor, material suppliers, and equipment suppliers in the performance of this Contract are in accordance with the "Buy American" provision in Public Law 95-217 (Section 215 of the Public Law 91-500 as amended) and EPA regulations and guidelines. In addition, provide all information required to justify the use of any foreign made product.
- H. The Contractor is to certify that the purchased products and materials are in accordance with the above referenced "Buy American" clause and, in addition, is to provide all information required to justify the use of any foreign made product.
- I. All materials and products incorporated into the work shall comply with the Build America, Buy America (BABA) Act requirements. The Contractor shall provide appropriate documentation

and certification verifying compliance with BABA provisions, including certification from the manufacturer confirming that the materials meet BABA requirements.

- J. If more than fifty percent of a product used in the project is made of iron or steel materials, it must comply with the American Iron and Steel (AIS) requirements, as outlined by applicable federal and state regulations. The Contractor shall furnish necessary certifications, including manufacturer certifications, confirming AIS compliance.

1.03 HANDLING AND STORAGE OF MATERIALS

- A. All materials and equipment to be incorporated in the work shall be handled and stored by the manufacturer, fabricator, supplier, and Contractor before, during and after shipment in a manner to prevent warping, twisting, bending, breaking, chipping, rusting and any injury, theft or damage of any kind whatsoever to the material or equipment.
- B. Cement and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural, miscellaneous, reinforcing steel shall be stored off the ground or otherwise to prevent accumulations of dirt or grease and in a position to prevent accumulations of standing water and to minimize rusting. Flat metal shall be stored vertically. Precast concrete shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in a manner to reduce breakage, chipping, cracking and spalling to a minimum.
- C. All mechanical equipment subject to corrosive damage by the atmosphere if stored outdoors (even though covered by canvas) shall be stored in a building to prevent injury. The building may be a temporary structure on the site or elsewhere, but it must be satisfactory to the Engineer.
- D. All materials which, in the opinion of the Engineer, have become so damaged as to be unfit for the use intended or specified shall be promptly removed from the site of the work, and the Contractor shall receive no compensation for the damaged material or its removal.
- E. All pipe and other materials delivered to the job shall be unloaded and placed in a manner that will not hamper the normal operation of the work or interfere with the flow of necessary traffic.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01700 CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
 - 1. Special provisions are included in Section 01170.
 - 2. Submittals are included in Section 01300.
 - 3. Photographic Documentation is included in Section 01322.
 - 4. Project Record Documents are included in Section 01720.

1.02 RELATED WORK

- A. Project deliverables are described in Division 1, 2, 3 and 15.

1.03 PROJECT RECORDS

- A. Maintain in Contractor's office, one set of the following information; actual revisions to work shall be recorded in these documents:
 - 1. Specifications.
 - 2. Addenda.
 - 3. Change Orders and other Modifications to the Contract.
 - 4. Reviewed submittals.
 - 5. Contract Maps.
 - 6. Details.
- B. Record information concurrent with the progress of the Work.
- C. Specifications:
 - 1. Changes made by Addenda and Modifications.
- D. Submit record information and complete service line log documents to Engineer prior to Application for Final Payment.
 - 1. Record information shall be submitted in accordance with as specified in Section 01720.

1.04 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- B. Provide all deliverables as specified, prior to submitting the final payment application.
- C. Provide submittals to Engineer that are required by governing or other authorities having applicable jurisdiction including but not limited to permit close out information, certificates of occupancy, etc.
- D. Provide evidence that all customer complaints have been addressed.
- E. Provide photographic evidence that final restoration has been completed at each work location.
- F. Submit Application for Final Payment identifying total adjusted Contract Sum, previous payments and sum remaining due. The adjusted Contract Sum shall reflect the actual installed unit quantities as well as other possible adjustments for change orders, liquidated damages, and recovery of engineering fees.
- G. Submit fully executed Contractor's Certificate, Final Release and Release of Liens with a final payment application.
- H. Submit the information required by the Contract, including tabulations and an accurate list and the proof of business registration of each subcontractor or supplier used in the fulfillment of the Contract, or attest that no subcontractor was used.

1.05 FINAL CLEANING

- A. Before requesting the inspection for certification of substantial completion, the Contractor shall complete the following to the extent that the inspection operations left the work area in an unacceptable condition.
 - 1. Clean the project area of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface, as necessary.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01720
PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE

- A. Keep and maintain, at the job site, a copy of contract documents, Contract maps, details, photos, service applications and sketches of installed service line marked up to indicate all changes made during the course of a project, as specified herein.
- B. Engineer will maintain the electronic e-Builder database that shall be updated as work progresses. Contractor will add quantities via application provided and the information in the e-Builder database will be compared with the Contractor's pay applications on a weekly and monthly basis. No pay applications will be approved by the Engineer until the quantities match between the Contractor's pay application, e-Builder database and the Engineer's recorded quantities. Neither the Owner or Engineer are responsible for the delay in review and approval of the Contractor's payment application as a result of the Contractor not utilizing e-Builder as specified or in a timely manner.
- C. The Contractor shall provide the equipment necessary to support the data management software in the field, including mobile data collection devices.

1.03 RELATED REQUIREMENTS

- A. Submittals are included in Section 01300.
- B. Photographic documentation is included in Section 01322.
- C. Contract Closeout is included in Section 01700.

1.04 REQUIREMENTS INCLUDED

- A. Maintain a record copy of the following documents, marked up to indicate all changes made during the course of a project:
 - 1. Specifications
 - 2. Swing ties
 - 3. Road opening permits
- B. Assemble copies of the following documents for turnover to the Owner at the end of the project, as specified.
 - 1. Field Orders, Change Orders, Design Modifications, and RFIs.
 - 2. Field Test records.
 - 3. Permits and permit close-outs (final approvals).

4. Certificate of Completion, as applicable.
5. Laboratory test reports.
6. Certificates of Compliance for materials and equipment.
7. Record Shop Drawings.
8. Material delivery tickets.
9. Pre-construction and post-construction photography.
10. Service Applications.
11. Electronic files in the database management system.

C. Record Drawings

1. Photographs shall be provided in a file sharing site as required in Section 01322.
2. The annotated service applications constitute the Contractor's Record documents and shall be accurate representations of as-built conditions, including all revisions made necessary by change orders, design modifications, requests for information and field orders.
3. Record drawings shall be accessible to the Owner and Engineer at all times during the construction period.
4. Record documents and service applications are considered incidental to the project. Ascertain as-built record information specific to the work, including assistance with the measurements to develop tie-cards produced by the Resident Project Representative.
 - a. Compile record information contemporaneously with construction progress for review and approval on a monthly basis along with pay application. If Engineer determines that the record information provided by the Contractor be inaccurate, incomplete or does not meet the requirements of these Specifications, Engineer will return the information to the Contractor for correction. Contractor shall correct the record information at no additional cost to the Owner and shall resubmit to the Engineer for review and approval. Requirements for as-built record documents and information for the work include:
 - 1) Laboratory test reports (e.g., bacteriological and primary & secondary water quality, soil and concrete test).
 - 2) Legibly mark the Specifications to record the manufacturer, trade name, catalog number, and supplier of each product and item of equipment or material actually installed, as well as any changes made by Field Order, Change Order, RFI, and approved shop drawing.
 - 3) Service applications
5. Record documents shall be stored on-site apart from documents used for construction. Record documents shall not be used for construction purposes. The information submitted by the Contractor in the Record Documents will be assumed to be correct, and the Contractor shall be responsible for the accuracy of such information and shall bear the costs resulting from the correction of incorrect data.
6. The following information shall be provided electronically in the database management system on a daily basis for each property where work is performed:
 - a. Observed pre-construction materials (utility side and private side both interior and exterior).
 - b. Which side of the service is replaced (or if it is a test pit only).
 - c. Record of attempts to reach the homeowner for scheduling the replacement.
 - d. Homeowner's information.

- e. New materials used.
- f. Date work scheduled and date work completed.
- g. Weather.
- h. Contractor name.
- i. Contract number.
- j. Service line length and diameter.
- k. Main diameter.
- l. Depth to service line.
- m. Street surface (for utility side).
- n. Surface at curb stop.
- o. Measurements for tap cards.
- p. Sketch of service line alignment.
- q. Up to 10 additional data entries to be specified by the Owner or Engineer.
- r. Summary of the work conducted.

1.05 SUBMITTALS

- A. Monthly applications for payment will be contingent upon up-to-date Record documents. Contractor is to send weekly updates on replacement item quantities completed at each address. If requested by the Engineer or Owner, provide a copy of the Record documents, or present them for review prior to processing monthly applications for payment.
- B. Upon substantial completion of the work and prior to final acceptance, the Contractor shall finalize and deliver a complete set of Project Record Documents to the Engineer conforming to the construction records of the Contractor. The Project Record Documents shall consist of service applications and corrected and annotated Contract maps. Unless specified otherwise elsewhere, Record Documents shall be both a hard copy of the service applications and in scanned in PDF format.
- C. The information submitted by the Contractor into the Project Record Documents will be assumed to be correct, and the Contractor shall be responsible for the accuracy of such information and shall bear the costs resulting from the correction of incorrect data.
- D. Delivery of record documents for each location is a prerequisite for complete payment of the replacement bid items as specified in Section 01025.
- E. Delivery of a complete compiled set of Project Record Documents to the Owner and Engineer will be a prerequisite to final payment.
- F. Maintain a copy of all books, records, and documents pertinent to the performance under this Agreement for a period of five years following completion of the contract.

PART 2 PRODUCTS

2.01 EQUIPMENT

- A. The Contractor shall provide the equipment necessary to support the e-Builder software. This shall include at least one tablet device per construction crew that can utilize a web browser and include a data package that does not require Wi-Fi for connectivity.

PART 3 EXECUTION

3.01 MAINTENANCE OF RECORD DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
- B. File documents and samples in accordance with the Construction Specifications Institute (CSI) format.
- C. Maintain documents in a clean, dry, legible, condition and good order. Do not use record documents for construction purposes.
- D. Make documents and sample available for inspection by the Engineer or Owner at all times.
- E. All record documents, including service applications, shall be scanned and linked to the correct water service in the database management system.
- F. Up-to-date electronic record documents may be a pre-requisite of processing periodic monthly pay applications if so specified under the section for progress payments.

3.02 RECORD INFORMATION COMPILATION

- A. Do not conceal any work until the required information is acquired.
- B. Items to be recorded include, but are not limited to:
 - 1. Location of utilities and appurtenances concealed in the construction – referenced to visible and accessible features.
- C. Details not indicated on the original Details.
- D. Service Line cards.
- E. Specifications - legibly mark each Section to record:
 - 1. Manufacturer, trade name, catalog number, and Supplier of each product and item of equipment actually installed.
 - 2. Changes made by Field Order, Change Order, RFI, and approved shop drawing.

END OF SECTION

SECTION 02113 CONTAMINATED SOIL EXCAVATION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, tools, and equipment necessary for field screening, excavation, removal, tracking, handling, stockpiling, sampling and analysis, managing, and temporary storage of contaminated or potentially contaminated soil, encountered as part of this Work.

1.03 RELATED WORK

- A. Environmental Protection Procedures are included in Section 01110.
- B. Transportation and Disposal of Contaminated Material are included in Section 02120.
- C. Dewatering and Drainage are included in Section 02140.
- D. Trenching, Backfilling, and Compaction are included in Section 02221.
- E. Sedimentation and Erosion Control is included in Section 02270.

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300 "Submittals," the following:
 - 1. Test results for all analytical samples, including all Chain-of-Custody forms and all documentation provided by the laboratory.
 - 2. A detailed Contamination Removal Plan of the proposed work procedures to be used in the controlled removal and demolition of materials. Such plan shall include the location of contaminated areas, decontamination areas, disposal plan, monitoring program, and a detailed description of the method(s) to be employed in order to control pollution. The plan shall indicate anticipated starting and completion dates for each activity and each work area and shall allow adequate time for clean-up, inspection, and monitoring activities. This plan must be approved prior to the commencement of any contamination removal work.
 - 3. Certifications signed by each employee working on-site as specified herein. Such certifications shall indicate that employees scheduled to perform the contaminated soil removal work have had the training and instructions on the hazards of contamination exposure, respirator selection, and its use, decontamination protocols and the OSHA regulations pertinent to contaminated soil removal work.

1.05 QUALITY ASSURANCE

- A. The Owner will be the generator and will sign all manifests and bills of lading. Except for materials required to be transported under manifest, all contaminated soil material shall be transported under bills of lading approved by the Connecticut Department of Energy and Environmental Protection (CTDEEP) regardless of the chemical quality of the soils.
- B. The Engineer's duties do not include supervision or direction of the actual work by the Contractor, their employees, or agents. Neither the presence of the Engineer nor any observation and testing by the Engineer shall excuse the Contractor from defects discovered in their Work.

1.06 REGULATORY REQUIREMENTS

- A. The project area is located within the public right of way and private property and it is assumed that uncontaminated and non-hazardous soil conditions will be encountered. In the event contaminated or potentially contaminated soils are encountered, the Contractor shall comply with the Connecticut Release Based Cleanup Regulations. If grossly contaminated material, visible as a free product, soil staining, oil sheen or noxious vapors, are encountered during excavation work performed under this Contract, the Contractor shall notify the Owner and Engineer, and CTDEEP by contacting the main reporting line at 1-860-424-3023, where and as required by applicable laws and regulations. Work of this Section shall be performed in accordance with all applicable Federal, State, and local regulations, laws, codes, and ordinances governing the handling, transportation, and disposal of contaminated materials.
- B. The Contractor shall follow environmental regulations and guidance, as applicable, included but not limited to Connecticut Remediation Standard Regulations, and other CTDEEP technical guidance.

PART 2 PRODUCTS

2.01 GENERAL

- A. The Contractor shall provide all employees, including Subcontractor's employees, with personal protective equipment and protective clothing consistent with the levels of protection for this Work as indicated in the Contractor's Site Health and Safety Plan.

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall prepare a Site Health and Safety Plan for excavation work in the project area. All soil excavation work shall be in accordance with this Site Health and Safety Plan. Contaminated soil excavation work shall consist of but is not limited to test pits, utility trenches, removal of obstructions, trench support systems, pre-trenching, mass excavations, and any incidental soil work.
- B. Excavate soil only to the limits necessary to install the proposed service line and appurtenances.
- C. Provide all layout field data, including ties, to the Engineer. Maintain all required field controls throughout the performance of the Work.

- D. All site health and safety controls shall be fully established and in operation prior to beginning any soil excavation. Site controls shall include but not be limited to work zones properly barricaded, decontamination facilities, and all support equipment and supplies including personal protective equipment.

3.02 FIELD SCREENING

- A. Upon the discovery of any visibly impacted material identified as stained soils, product, sheen, or noxious vapors the Contractor shall:
 - 1. Notify the Engineer.
 - 2. Take the necessary steps to provide the appropriate personal protective equipment to workers.
 - 3. Take necessary Health, Safety and Monitoring Precautions including soil screening with a Photoionization Detector.
 - 4. Segregate suspected potentially hazardous-contaminated material from the non-hazardous contaminated material for soil characterization including hazardous waste characterization.

3.03 EXCAVATION OF CONTAMINATED MATERIAL

- A. Work and decontamination procedures in areas containing contaminated material shall be performed in accordance with standard engineering practices and approved Contamination Removal Plan.
- B. Employ methods necessary to isolate contaminated soils from non-contaminated soils, including benching.
- C. Separate excavated contaminated soil based on the determination that the contaminated soil could be from more than one source and by degrees of contamination (i.e., visually contaminated) or as directed by the Engineer.

3.04 STORAGE OF CONTAMINATED EXCAVATED MATERIAL

- A. Excavated non-hazardous contaminated soils shall be direct loaded into dump trucks for disposal at an appropriate facility or shall be temporarily staged within a paved lot located along the construction corridor or near if additional soil characterization is required. The soil stockpiled on site should be removed at the end of each workday.
- B. Neither the Owner nor the Engineer shall have any responsibility for obtaining or maintaining stockpile locations. All excavated contaminated soil shall be temporarily stockpiled at locations provided by Contractor in stockpiles not exceeding a volume of 100 cubic yards pending soil characterization and analytical results. Soil shall be stockpiled in accordance with this Section. Blending of soil to attain composition thresholds by dilution is not allowed. No additional payment will be made for multiple handling of soil.
- C. All material entering or leaving the staging area will be under the direct supervision of the Contractor's inspector. Stockpiles shall be inspected by the Contractor's Field Operations Manager or representative a minimum of one time per week, after all storm events and prior to any Contractor extended leaves to ensure the stockpile area is adequately maintained to limit negative impacts to the surrounding public. Inspection results will be recorded in the Daily Log

and maintained on site and available for inspection by the Owner or their representative. A copy of the log will be provided to the Owner and Engineer.

- D. Excavated contaminated materials shall be stockpiled in accordance with the most recent version of Connecticut DEEP guidance policies while samples are analyzed for chemical constituents. Excavated materials shall be placed on a base, lined with 20 mil (or higher gauge) polyethylene and be completely and securely covered with 6 mil (or higher gauge) polyethylene.
 - 1. The stockpiles shall be tracked to provide complete data necessary to locate any stockpile within the site. All Work necessary to coordinate stockpiling from placement to disposal shall be included. Provide Engineer with duplicate copies of all documentation at the time of stockpiling.
 - 2. The Contractor shall handle all soil in accordance with applicable regulations at all times. No soil shall be left at the stockpiling facility after the completion date of this contract.
 - 3. The polyethylene shall be bermed around the edges to prevent any infiltration of stormwater or exfiltration of leachate. The berm height shall be a minimum of 12-in.
 - 4. The polyethylene shall be adequately secured to prevent damage or loss by wind or other weather elements.
- E. Stockpiles shall be securely barricaded and clearly labeled.
- F. Soils shall be suitably dewatered prior to their leaving the site, to prevent free water from developing during transport to the disposal facility.
- G. Hay bales meeting Section 02270 "Sedimentation and Erosion Control," shall be placed around the stockpiles in accordance with best practices.
- H. Stockpiles will be graded such that stormwater runoff is diverted from stockpiled materials and hay bales berms/ silt fencing and other control measures acceptable to the Owner will be placed around the perimeter of the area. Hay bales shall be used as needed near catch basins, surface waters, and other discharge points. Soil erosion and sediment control measures shall be inspected and maintained for the duration of the project. Stockpile slopes shall be no steeper than 1 horizontal to 1 vertical (1:1).
- I. Soil movement on site will be recorded on daily soil/sediment tracking log to record all material entering or leaving for the duration of disposal activities. The log must be maintained daily and include up-to-date records that identify; the origin of each waste stream in the staging area, the date the materials were received, identify the specific storage location, type, quantity, and characteristics of all materials excavation, indicate the date the materials were transported from the storage area to the final destination, document the waste transporter, and the location of the final disposal destination.

3.05 SOIL TRACKING, STOCKPILE SAMPLING, AND ANALYSIS

- A. Track all contaminated soils from excavation to final disposition.
- B. Take samples of stockpiled material as necessary and as required by the disposal facility, in such a manner as not to cause any cross-contamination. All sampling equipment shall be decontaminated between collection of samples from each stockpile.

- C. Samples shall be analyzed at the frequency and for the constituents required by the disposal facility. These analyses shall be performed by a laboratory certified for such analyses by the State of Connecticut.
- D. Submit a copy of all analyses to the Engineer within two days of receipt of the laboratory report. A review period of one week should be anticipated for Engineer's review of analytical data.

3.06 DEWATERING

- A. Dewatering within the contaminated soil area shall be conducted in accordance with Section 02140 "Dewatering and Drainage."

END OF SECTION

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SECTION 02120
TRANSPORTATION AND DISPOSAL OF CONTAMINATED MATERIAL

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, tools, equipment, and incidentals necessary for transportation and offsite reuse, recycle, or disposal of excess contaminated waste materials at a permitted facility. Contaminated waste materials refer to any and all materials including, but not limited to: soil encountered during excavation, lead or galvanized steel pipe, debris encountered from clearing and grubbing operations, excess/waste site preparation material unsuitable for disposal and water from the Contractor's staging/dewatering areas (if not treated and disposed of onsite, as discussed in Section 02140 "Dewatering and Drainage"). The Contractor's plans, which will be based on the requirements of this Section, shall provide the detailed methods for performing the work.
- B. The Contractor shall be responsible for determining the appropriate off-site permitted reuse/recycling/disposal facility location based on any disposal facility testing results from this Section. Off-site reuse/recycle/disposal facility determinations will be subject to the Engineer's review.
- C. The Contractor shall ensure that all operations for loading and transporting of contaminated waste materials are in compliance with Federal and Connecticut Department of Transportation (CTDOT) and Connecticut Department of Energy & Environmental Protection (CT DEEP) regulations, and all other applicable Federal, State, and local requirements.
- D. When more than one reuse/recycle/disposal facility option exists, select the least costly disposal option, inclusive of transportation and facility costs.
- E. Recycle/reuse contaminated soil at a non-hazardous waste landfill or recycling facility.

1.03 RELATED WORK

- A. Submittals are included in Section 01300.
- B. Contaminated Soil Excavation is included in Section 02113.

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300 - Submittals, all pertinent information relating to the transport and reuse/recycle/disposal of materials specified herein. The information submitted shall include, as a minimum:

1. Transporter Information:

- a. Name and address of common carrier to be used on project.

- b. Name and address of licensed waste transporters to be used on project.
 - c. Provide current licenses and permits to operate in all states affected by transport.
 2. Waste characterization sampling forms, sampling logs, sample location maps, and laboratory analysis reports.
 3. Facility information:
 - a. General Information:
 - 1) Facility name.
 - 2) Facility address.
 - 3) Name and title of contact person.
 - 4) Telephone number and email of a contact person.
 - 5) Permit number.
 - b. The facility shall provide a listing of current and valid permits, licenses, letters of approval and other authorizations to operate that they hold, pertaining to the receipt and management of the materials removed from the project site.
 - c. Documentation of the disposal facility's commitment to accept the volume of waste material and statement that it will be open for business during the Contract duration to accept the volume of regulated waste material prior to transporting any material off-site.
 - d. Submit a complete list of the disposal facility's permitted allowable contaminant levels and physical characteristic requirements for impacted material, sampling frequency and requirements, and list any required regulatory approvals for individual waste streams.
 - B. Submit to the Engineer, copies of all analytical data used to test material, if applicable. Analytical data shall be kept confidential and distributed to the Engineer and Owner only.
 - C. Prepare and submit to the Engineer for review and approval no less than 30 days in advance of shipping materials off site. Engineer will be responsible for obtaining Owner signature. Submittal package to include but not be limited to:
 1. All waste profiles and specialists' opinion letters packages.
 2. Any permit applications, registrations or authorizations required for reuse, recycle or disposal of soil at an in-state or out-of-state facility.
 3. Provide the Engineer with originals of all hazardous waste manifests, non-hazardous waste manifests and bills of lading, and material shipping records.
 - D. Waste disposal/recycling documentation (e.g., weight tickets) in hard copy and electronic (spreadsheet) formats from the receiving facility.
 - E. Submit to the Engineer, by email, within 7 days of receipt of wastes at accepting disposal/recycling/reuse facilities, copies of facility-signed hazardous waste manifests, non-hazardous waste manifests, bills of lading, and material shipping records.
 - F. Submit to Owner and the Engineer, prior to receiving progress payment, documentation certifying that all materials were transported to, accepted, and disposed of, at the selected receiving facility.

1. Facility signed manifests and appropriate shipping documents.
2. Certified tare and gross weights for each waste load removed from the project site.

1.05 REGULATORY REQUIREMENTS

- A. The Work of this Section shall be performed in accordance with all applicable Federal, State, and local regulations, laws, codes, and ordinances governing the handling, transportation, and disposal of contaminated waste materials.
- B. Obtain all Federal, State, and local permits required for the transport and disposal of contaminated waste materials. The Contractor shall adhere to all permit requirements.
- C. Document that the disposal facilities proposed have all certifications and permits as required by Federal, State, and local regulatory agencies to receive and dispose of the contaminated waste materials.
- D. Excess non-hazardous contaminated waste materials not designated for reuse as backfill material will be stored offsite at a Contractor's storage area and disposed at a disposal facility within 180 days of excavation. A non-hazardous bill of lading will be used to document the transportation and final disposition of contaminated waste materials during construction. The Owner will be identified as the generator associated with the Bill of lading, and the Owner or Owner Representative will sign each Bill of lading unless agreed otherwise.
- E. Any contaminated waste materials classified as hazardous waste will be removed within 90 days of excavation. If the regulated material is determined to be hazardous waste in accordance with applicable federal, state and local requirements, hazardous waste manifests must be generated and complete with the Code of Federal Regulations Title 40 Subpart B Parts 262.20 to 262.23 and Section 22a-449(c)-102 of the Regulations of Connecticut State Agencies. Owner will be identified as the associated generator and will sign each hazardous waste manifest.
- F. Hazardous materials containers will be labeled when first placed in service, and each container will remain closed except when compatible waste types are added. When moved within the site, each container will remain within the geographic boundaries of the site. Containers of waste will be immediately sealed as each container is filled. The Contractor shall continuously maintain custody of all non-hazardous and hazardous material generated at the work site including security, short-term storage, transportation, and disposition until custody is transferred to the off-site TSD facility.

PART 2 PRODUCTS

2.01 GENERAL

- A. All Contractor personnel shall wear personal protective equipment and protective clothing consistent with the levels of protection for this Work as indicated in the Contractor's Site Health and Safety Plan.
- B. Provide all materials required for packaging, labeling, marking, placarding, and transportation of material in conformance with Department of Transportation (DOT) standards.

PART 3 EXECUTION

3.01 CONTAMINATED WASTE MATERIALS CHARACTERIZATION

- A. The Contractor shall be responsible for characterizing the contaminated soil and waste materials for the purpose of obtaining approvals for final disposal of contaminated waste material. Collect samples to perform the testing required by the disposal facility.
- B. Provide to the Engineer the sampling and analysis requirements for each of the selected material disposal facilities (i.e., analytical requirements, sampling frequency, etc.).
 - 1. Submit a copy of all analytical results to the Engineer within two days of receipt of the laboratory report.
- C. Sampling of contaminated waste materials shall be done at sufficient and adequately distributed locations so that the concentrations of the chemical constituents attributable to the contaminants of concern which may be present are adequately characterized.
- D. Coordinate schedule so that Engineer may observe sample collection.
- E. The Contractor is responsible for any additional contaminated waste materials characterization required to meet disposal facility requirements.

3.02 TRANSPORT OF CONTAMINATED WASTE MATERIAL

- A. The Contractor shall not be permitted to transport contaminated waste materials from the stockpile to the disposal or recycling facility until all disposal or recycling facility documentation has been received, reviewed, and accepted by Owner and the Engineer.
- B. Transport contaminated waste materials from the stockpile site to the disposal or recycling facility in accordance with all United States Department of Transportation (DOT), United States Environmental Protection Agency (USEPA), Connecticut Department of Environmental Protection (CTDEEP) regulations and other regulations of all affected states.
- C. All transportation vehicles are to have secure, watertight containers free of defects for material transportation.
- D. Cover transported soil prior to leaving the point of generation and until it has arrived at the treatment, recycling, or disposal facility. Ensure that loose material on the body of the truck is removed prior to leaving the site.
- E. All vehicles departing the site are to be properly logged to show the vehicle identification number, driver's name, time of departure, destination, and approximate volume and content of materials.
- F. The hauler(s) shall be licensed in all states affected by transport.
- G. Provide to the Engineer copies of all weight slips, both tare and gross, for every load weighed and disposed of at the accepted disposal facility. The slips shall be tracked by the original manifest document number that was assigned by the Engineer at the site.
- H. The Contractor shall be responsible for ensuring that free-liquid does not develop during transport. "Wet contaminated waste materials" shall not be loaded for transport. The Contractor shall be responsible to properly dispose of any free liquids that may result during transportation.

- I. The temporary stockpiled contaminated waste materials must be removed from the stockpile to the disposal or recycling facility in accordance with applicable regulatory deadlines however no later than the completion date of this contract as may be extended.
- J. Be responsible for any and all actions necessary to remedy situations involving waste spilled in transit or tracked off-site; this action will be performed at the Contractor's expense.

END OF SECTION

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SECTION 02140
DEWATERING AND DRAINAGE

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Design, furnish, install, operate, monitor, maintain and remove a temporary dewatering system as required to lower and control water levels at least 2-feet below subgrades of excavations and to permit construction to proceed in-the-dry.
- B. Furnish, maintain and remove temporary surface water control measures adequate to drain and remove surface water entering excavations.
- C. Work shall include the design, equipment, materials, installation, protection, and monitoring of geotechnical instrumentation required to monitor the performance of the dewatering and drainage system as required herein.
- D. Collect and properly dispose of all discharge water from the dewatering and drainage systems. Under no circumstances shall water from dewatering systems be discharged into the existing sewer system without prior approval from the Owner which may include fees and applications.
- E. Discharges due to dewatering activities shall be in accordance with local and state regulations and any related permitting fees are to be at the Contractor's expense. If a dewatering discharge is permitted to discharge to surface water, at a minimum all discharges from dewatering activities to surface waters, wetlands, vernal habitats, or storm sewers shall be free of sediment. Care shall be taken not to damage or kill vegetation by excessive watering or by damaging silt accumulation in the discharge area. If discharges are sediment-laden, techniques shall be employed to remove sediment prior to discharge. A sedimentation basin shall be constructed and used as specified, where necessary, to protect vegetation and to achieve environmental objectives.
- F. Obtain and pay for all permits required for dewatering and drainage systems under the replacement bid items.
- G. Repair damage caused by dewatering and drainage system operations.

1.03 RELATED WORK

- A. Submittals are included in Section 01300.
- B. Testing and Laboratory Services is included in Section 01410.
- C. Trenching, Backfilling and Compaction is included in Section 02221.
- D. Granular Fill Material is included in Section 02230.

- E. Sedimentation and Erosion Control are included in Section 02270.
- F. Pavement Repair and Resurfacing is included in Section 02576.
- G. Loaming and Seeding is included in Section 02930.

1.04 SUBMITTALS

- A. Dewatering and drainage system designs shall be prepared by the Contractor. Contractor shall submit qualifications as required herein.
- B. Submit a dewatering and drainage system design plan.
 - 1. The plan shall include a description of the proposed dewatering system(s) and include the proposed installation methods to be used for dewatering and drainage system(s) elements. The plan shall include equipment, and dewatering system design calculations in the plan.
 - 2. Plan to include the proposed discharge location (surface water, storm water, sanitary sewer/POTW) and the appropriate CT DEEP permit for discharge.
 - 3. If dewatering is required, groundwater will require sampling and characterization by the Contractor in order to determine the applicable dewatering discharge permit(s) and potential treatment. Obtain all permits and comply with conditions and terms of the applicable CT DEEP permit or permits required for temporary construction dewatering and drainage systems and their discharges. Applicable permits may include:
 - a. CT DEEP General Pretreatment Permit for Significant Industrial User, Dewatering, and Remediation Discharges (SIU GP, Permit ID CTSIU0000 and CTDRW0000), as amended, and/or
 - b. CT DEEP General Permit for the Discharge of Dewatering and Remediation Wastewaters (Permit ID CTDRGP000), as amended, and/or
 - c. CT DEEP National Pollutant Discharge Elimination System General Permit for the Discharge of Stormwater from Construction Activities (Permit ID CTR10000), as amended.
- C. The plan shall identify the anticipated area influenced by the dewatering system(s) and address impacts to adjacent existing and proposed structures.
- D. Coordinate dewatering and drainage submittals with the excavation and support of excavation submittals. The submittal shall show the areas and depths of excavation to be dewatered.
- E. Do not proceed with any excavation or dewatering activities until the dewatering submittals have been reviewed by the Engineer.

1.05 QUALITY ASSURANCE

- A. Perform all work in accordance with current applicable regulations and codes of all Federal, State and local agencies.

- B. The Contractor shall have at least 5 years of experience with work compatible to the Work specified, employing labor and supervisory personnel who are similarly experienced in this type of Work.

1.06 DESIGN REQUIREMENTS

- A. The Contractor is responsible for the proper design and implementation of methods for controlling surface water and groundwater.
- B. The primary purpose of the groundwater control system(s) is to perform all pipe laying "in-the-dry" and on undisturbed subgrade soils in the areas of the proposed excavations. The Contractor is responsible for lowering the groundwater as necessary to complete construction in accordance with the details and specifications at no additional cost to the Owner.
- C. Design all groundwater control system components to prevent loss of fines from surrounding soils.
- D. The Contractor shall be responsible for damage to properties, buildings or structures, sewers and other utility installations, pavements and work that may result from dewatering or surface water control operations.
- E. Design review and field monitoring activities by the Owner or by the Engineer shall not relieve the Contractor of his/her responsibilities for the work.

1.07 DEFINITIONS

- A. Where the phrase "in-the-dry" is used in this Section, it shall be defined as an excavation subgrade where the groundwater level has been lowered to at least 2-ft below the lowest level of the excavation, is stable with no ponded water, mud, or muck, is able to support construction equipment without rutting or disturbance and is suitable for the placement and compaction of fill material, pipe or concrete foundations.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Piping, pumping equipment and all other materials required to control of surface water and groundwater in excavations shall be suitable for the intended purpose.
- B. Standby pumping systems and a source of standby power shall be maintained at all sites.

PART 3 EXECUTION

3.01 GENERAL

- A. Control surface water and groundwater such that excavation to final grade is made in-the-dry, the natural undisturbed condition of the subgrade soils is maintained and softening and/or instability or disturbance due to the presence or seepage of water does not occur. All construction and backfilling shall proceed in-the-dry and flotation of completed portions of work shall be prohibited.

- B. Methods of groundwater control may include but are not limited to perimeter trenches and sump pumping, perimeter groundwater cutoff, ejectors and combinations thereof.
- C. It is expected that the type of system, and details of the work will have to be varied depending on soil/water conditions at a particular location.
- D. All work included in this Section shall be done in a manner which will protect adjacent structures and utilities and shall not cause loss of ground or disturbance to the pipe bearing soils or to soils which support overlying or adjacent structures.
- E. Locate groundwater control system components where they will not interfere with construction activities adjacent to the work area. Excavations for sumps or drainage ditches shall not be made within or below 1H:1V slopes extending downward and out from the edges of existing or proposed foundation elements or from the downward vertical footprint of the pipe.

3.02 SURFACE WATER CONTROL

- A. Construct surface water control measures, including dikes, ditches, sumps and other methods to prevent, as necessary, flow of surface water into excavations and to allow construction to proceed without delay.
- B. All sewer and storm inlets within construction areas shall be provided with perimeter hay bales or other appropriate siltation control measures. All inlets shall be maintained to allow capture of incoming flow and shall not be blocked.

3.03 EXCAVATION DEWATERING

- A. At all times during construction, provide and maintain proper equipment and facilities to promptly remove and properly dispose of all water entering excavations. Excavations shall be maintained in-the-dry. Groundwater levels shall be kept at least 2-ft below the lowest excavation level.
- B. Excavation dewatering shall maintain the subgrade in a natural undisturbed condition and until the fill, structure or pipes to be built thereon have been completed to such extent that they will not be floated or otherwise damaged by allowing water levels to return to natural elevations.
- C. Pipe, masonry, and concrete shall not be placed in water or be submerged within 24 hours after being installed. Water shall not flow over new masonry or concrete within four days after placement.
- D. In no event shall water rise to cause unbalanced pressure on structures until the concrete or mortar has set at least 24 hours. Prevent flotation of the pipe by promptly placing backfill.
- E. Dewatering shall at all times be conducted in such a manner as to preserve the natural undisturbed condition of the subgrade soils at the proposed bottom of excavation.
- F. If the subgrade of the trench or excavation bottom becomes disturbed due to inadequate dewatering or drainage, excavate below normal grade as directed by the Engineer and refill with structural fill, screened gravel or other material as approved by the Engineer at the Contractor's expense.

- G. It is expected that the initial dewatering plan may have to be modified to suit the variable soil/water conditions to be encountered during construction. Dewater and excavate, at all times, in a manner which does not cause loss of ground or disturbance to the pipe bearing soil or soil which supports overlying or adjacent structures.
- H. Pumping from the dewatering system shall be continuous until pipe or structure is adequately backfilled. Stand-by pumps shall be provided.
- I. Water entering the excavation from precipitation or surface runoff shall be collected in shallow ditches around the perimeter of the excavation, drained to a sump and pumped from the excavation to maintain a bottom free from standing water.
- J. Drainage shall be disposed of in an approved area as specified in Section 01110. Existing or new sanitary sewers shall not be used to dispose of drainage without first obtaining written permission from the local municipality.

3.04 REMOVAL OF SYSTEMS

- A. At the completion of the excavation and backfilling work, and when approved by the Engineer, all pipe, pumps, generators, other equipment and accessories used for the groundwater and surface water control systems shall be removed from the site. All materials and equipment shall become the property of the Contractor. All areas disturbed by the installation and removal of groundwater control systems shall be restored to their original condition.

END OF SECTION

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SECTION 02151
UTILITY IMPACT MOLING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required to install and test the water service line piping and appurtenances using pneumatic horizontal boring (aka moling) methods as specified herein.
- B. The Contractor shall be capable of providing crews as needed to complete the work without undue delay.
- C. The Contractor shall be prepared to provide temporary water service to any location that is not completed within the allocated time.
- D. Review and comply with the coordination requirements listed in Section 02663.
- E. Review and comply record-keeping requirements listed in Section 01720.

1.03 RELATED WORK

- A. Trenching, Backfilling, and Compaction is included in Section 02221.
- B. Water Service Connections are included in Section 02663.

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300, Shop Drawings for the pneumatic horizontal boring tool, replaceable boring heads, the air compressor.
- B. Submit, prior to the start of work, a typical drawing showing the equipment setup and the size and location of all proposed pits and excavations required to complete the work.
- C. The Owner shall approve or disapprove the Contractor and/or manufacturer based on the submitted information.

1.05 GUARANTEE

- A. All work shall be fully guaranteed by the Contractor for one year from the date of Substantial Completion. During this period, all serious defects discovered by the Customer or Owner shall be removed and replaced in a satisfactory manner by the Contractor at no cost to the Customer or Owner.

PART 2 PRODUCTS

2.01 MATERIAL

- A. Provide and install copper water service line pipe in accordance with Section 02663.

2.02 EQUIPMENT

- A. The pneumatic horizontal boring tool shall be designed and manufactured to force its way through the existing ground by compressing the surrounding soil as it progresses. The unit shall generate sufficient force to compact the existing soil as it progresses.
- B. Sizing of the pneumatic horizontal boring equipment shall be per manufacturer's specifications for the specific diameter pipe and the soil conditions.
- C. The pneumatic horizontal boring tool shall be a reciprocating stepped-cone chisel head with pre-tensioned spring. Compressed air shall repeatedly propel the piston against the rear of the chisel head assembly to compress the pre-tensioned steel spring to propel the tool forward. At the same time, the new water service line, directly attached to the rear of the boring unit shall be pulled forward with the boring unit.
- D. Provide an air compressor with a hose to drive the Mole (20 to 200 cfm at pressure recommended by manufacturer).
- E. Provide continuous in-line lubrication (oil type recommended by manufacturer) between the compressor and the tool (bore head) for optimal performance.
- F. Provide replaceable boring heads (fixed or moving), made adaptable for different soil conditions.

PART 3 EXECUTION

3.01 GENERAL INSTALLATION

- A. Pneumatic horizontal boring shall be conducted in a continuous operation powered by compressed air to propel the tool forward while pulling the new water service pipe at the same time.
- B. Use a launching cradle and an aiming scope to provide accurate bore alignment and grade.

3.02 INSTALLATION PROCEDURE FOR NON-STEERABLE MOLES

- A. Conduct a pre-installation inspection of the property in which moling is proposed in order to become familiarize each specific site condition (i.e., the location of access, length of pipe, conflicting utilities, etc.).
- B. Provide temporary piping in order to maintain water to existing property during pipe moling, if the property will be without water for longer than 8-hours.

- C. Prior to the actual moling and disconnection of existing water service line, the Contractor shall prepare all excavation pits and have all equipment and piping on-site in order to complete the moling operation in a timely fashion.
- D. Curb stop must be excavated before any other excavation takes place to confirm the service line materials on both sides – the public side and the private side.
- E. Excavate access pits as needed along the existing water service line. The number and size of access pits shall be the minimum necessary to allow for satisfactory completion of the work.
- F. Access pits shall be of sufficient size to allow access and proper alignment for moling equipment, operator and installation of new water service line. All excavation shall be fully braced and supported in accordance with Section 02311. Maximum pit sizes for payment are shown on the details. The Mole must be carefully aligned in the insertion pit and advanced along a straight line.
- G. Non-steerable Moles shall have a tracking device by which the depth and location of the Mole will be tracked with a walkover receiver. A sonde (beacon probe) shall be placed in a special housing between the “hose whip” (short hose) at the back of the tool and the air supply hose, or in special housing at the nose of the Mole as per manufacturer’s specifications. This allows the operator to determine if the unit is on the correct line path.

3.03 INSTALLATION PROCEDURE FOR STEERABLE MOLES

- A. The moling shall be conducted as a continuous operation. The bore head shall be immovable thus having the continuous tendency to steer. In order to bore approximately straight, the Mole has to be rotated as it advances.
- B. Moling method shall limit vibrations transmitted to the surrounding soils, and work that causes excessive vibrations shall be subject to review by the Owner and Engineer. The peak particle velocity (PPV) shall be limited to 0.5-inches per second (ips).
- C. The accuracy of steerable Moles depends on the accuracy of the tracking system in the Mole and the skill of the operator. The accuracy of a tracking system shall be 2 to 5 percent of the depth. Expected accuracy should be within 1 to 3 inches from designed bore path.

3.04 DEPTH/CLEARANCE

- A. The Mole shall be installed at minimum 42 inches below grade. A minimum of 2 feet of clearance shall be maintained between the designed bore path and any adjacent existing underground utilities.

3.05 TOOL SIZE, ALIGNMENT AND LAUNCHING

- A. The diameter of the Mole shall be determined by the outer pipe diameter. The created bore should be approximately 15 to 25 percent larger in diameter than the product pipe or as recommended by the manufacturer to allow for borehole shrinkage and to reduce the friction between the pipe and the soil.
- B. The Mole shall be placed on the bottom of the insertion access pit and point at the receiving access pit. Due care must be taken to align the Mole in the pit properly.

3.06 AIR SUPPLY

- A. A standard air compressor with silencer shall be used to operate the impact Mole. The operating pressure at the point where the air hose is connected to the Mole should not exceed the manufacturer's recommended value. The air hose should be lightweight, flexible, and collapse resistant. For steerable moling, the hose shall also have a high torsional stiffness.
- B. As soon as the moling operation is complete, connect the new water service line in accordance with Section 02663.

3.07 BORING SPEED

- A. The penetration rate of the Mole will depend on soil conditions and can vary, the maximum penetration rate for non-steerable moling shall be 5 ft/min. The maximum speed for steerable moling shall be according to the manufacturer's recommendation.

3.08 TOOL LUBRICATION

- A. The Mole requires continuous lubrication for optimal performance. Follow the manufacturer's recommendation as to quantity and type of oil.

3.09 FIELD TESTING AND ACCEPTANCE

- A. Flushing and testing of the new service line shall be done in accordance with 02663.

END OF SECTION

SECTION 02213
ROCK AND BOULDER EXCAVATION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required and excavate and dispose of rock and boulders as specified herein. Furnish acceptable material for backfill in place of the excavated rock to bring the limits of the trench and/or excavation to those required on this project.
- B. Blasting will not be permitted on this project.
- C. Protect existing structures, utilities, roadway, adjacent property, workers, Engineer, Owner, all abutters, and the public from damage or injury from excessive ground vibrations and rock block movements.

1.03 RELATED WORK

- A. Granular Fill Materials are included in Section 02230.
- B. Sedimentation and Erosion Control is included in Section 02270.
- C. Excavation Support and Protection is included in Section 02311.

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300, at least two weeks prior to commencing excavation that includes rock excavation the following:
 - 1. A description of the means and methods of rock and boulder excavation techniques including size and energy of any impact equipment and chemical properties of any chemical agents to be used for chemical splitting.
 - 2. Name and qualifications of the person(s) responsible for monitoring and reporting rock excavation vibrations.
- B. Review by the Engineer of material submitted by the Contractor shall not relieve the Contractor of responsibility for the accuracy, adequacy, and safety of the rock and boulder excavation, exercising proper supervision and field judgment and producing the results within the limits required by this Section.

1.05 DEFINITIONS

- A. Rock: Any large mass of stone, bedrock, or ledge rock.

- B. Soil Excavation: The removal of earth, including boulder, weathered rock and rock fragment, loose or disintegrated rock, loose or rotted shale, nested stones, hardpan and the like. Soil Excavation shall include all excavation of earth materials including rock excavation.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. Rock excavation methods shall limit vibrations transmitted to the surrounding soils and work that causes excessive vibrations will need to be reviewed by owner and engineer. Vibrations shall be limited to peak particle velocity (PPV) of 0.5-inches per second (ips).

3.02 ROCK EXCAVATION

- A. Rock excavation may be performed by drilling, wedging, sledging, cutting, barring, jackhammering, hoe ramming, expansive chemical splitting, or another similar process in a manner, which does not cause damage to the existing structures, new construction.
- B. Blasting is not allowed.
- C. All rock excavation operations shall comply with the project, state and local noise and dust regulations.
- D. If rock below grade is shattered by rock excavation methods, and if, in the opinion of the Engineer, the shattered rock is unfit for subgrade, the rock shall be removed and the excavation refilled with thoroughly compacted screened gravel or structural fill at no additional cost.

3.03 DISPOSAL OF ROCK

- A. Fragmented rock with dimensions not exceeding 6 inches in any direction may be mixed with common fill and used as common fill in accordance with Section 02230.
- B. Excavated material shall be stacked without excessive surcharge on the excavation or obstructing free access to hydrants and gate valves. Inconvenience to traffic and abutters shall be avoided as much as possible.
- C. Should conditions make it impractical or unsafe to stack material adjacent to the excavation, the material shall be hauled and stored at an alternate location. When required, it shall be rehandled and used in backfilling the trench at no additional cost to the Owner.
- D. Rock and boulder material disposed of by wasting shall be replaced by available surplus suitable soils. Common fill to supply any deficiency of backfill shall be provided at no additional cost.
- E. Unused rock and boulders shall be removed and disposed of off-site.
- F. Provide to the Owner and Engineer the name and address of the facility receiving any unused rock generated during construction. In addition, provide to the Owner and Owner's

representative documentation of the facility's commitment to accept the rock and boulders and the facility's intended use.

END OF SECTION

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SECTION 02221
TRENCHING, BACKFILLING AND COMPACTION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required and perform all trenching for pipelines and appurtenances, including drainage, filling, backfilling, disposal of surplus material and restoration of trench surfaces and rights-of-way.
- B. Furnish and place all sheeting, bracing and supports and remove from the excavation all materials which the Engineer may deem unsuitable for backfilling. The bottom of the excavation shall be firm, dry and in all respects, acceptable.
- C. All excavation, trenching and related sheeting, bracing, etc., shall comply with the requirements of OSHA excavation safety standards (29 CFR Part 1926.650 Subpart P) and State requirements. Where a conflict between OSHA and State regulations exists, the more stringent requirements shall apply.
- D. Wherever the requirement for 95 percent compaction is referred to herein, it shall mean "at least 95 percent of maximum density as determined by ASTM D1557".

1.03 RELATED WORK

- A. Testing and Testing Laboratory Services are included in Section 01410.
- B. Dewatering and Drainage are included in Section 02140.
- C. Excavation Support and Protection is included in Section 02311.
- D. Granular Fill Materials are included in Section 02230.
- E. Pavement Repair and Resurfacing is included in Section 02576.

1.04 SUBMITTALS

- A. Submit to the Engineer the sheeting and bracing design as required prior to excavation.
- B. Submit to the Engineer the proposed method of backfilling and compaction prior to excavation.

1.05 SOIL TESTING

- A. At all structures, appurtenances, manholes, pipelines and service connections, prior to the placement of bedding material, initial backfill, concrete work mats, structural fill, granular fill

or structural concrete, coordinate with the soils testing laboratory as specified to verify the suitability of the existing subgrade soil and to perform in-place soil density tests as required to verify that the bearing capacity of the subgrade is sufficient.

- B. Materials will be tested and observed as described in the following paragraphs. Cooperate by allowing free access to the work for selection of test materials and observations:
 - 1. Materials to be used in the work shall be tested in accordance with Section 02230.
 - 2. If field test results are not in conformance with the requirements of these Specifications, costs of re-testing after correction of deficiencies shall be borne by the Contractor.
 - 3. Earthwork activities performed without properly scheduled inspection are subject to removal and replacement or additional testing as directed by the Engineer at no expense to the Owner.
 - 4. Testing methods shall comply with the latest applicable ASTM or AASHTO Standards specified.
 - 5. During the placement of bedding, backfill and fill, the Contractor shall perform in-place soil density testing to confirm that fill material has been compacted in accordance with the requirements of this Section. Such testing by the third party technician will be paid for with the appropriate replacement bid item. The Engineer will designate areas to be tested. The approved testing laboratory representative shall be on-site on days selected by the Engineer or Owner and be present during compaction of subgrade and placement and compaction of bedding and backfill. The approved testing laboratory representative shall confirm the suitability of the subgrade of the excavated trench prior to placement of any bedding and backfill.
 - 6. Materials which have been previously tested may be subjected to further testing from time to time and may be rejected if it is determined that they do not conform to the requirements of these Specifications. Rejected materials shall be removed from the work immediately when so directed by the Engineer, notwithstanding the results of previous testing.
- C. The Engineer or Owner may conduct additional soil testing. Cooperate fully in obtaining the information desired and allowing free access to the work.
- D. Payment for all testing and testing laboratory services required by this Section shall be included in the replacement bid items.

PART 2 PRODUCTS

2.01 GENERAL

- A. Soils and materials designated for use in this Section are specified in Section 02230.
- B. Warning Tape:
 - 1. Tape material shall be formulated from 100 percent polyethylene resins. Resins shall be pigmented for chemical stability and resistance to sulfide staining (colorfastness). Tape shall be constructed by the mechanical (non-adhesive) lamination of two plies of three layers blown film in such a manner as to produce a bi-axially oriented structure. The warning tape shall be manufactured with a permanent APWA line color pigment at a

- maximum of every thirty (30) inches along its length, be imprinted with a continuous warning message as follows: "CAUTION: SERVICE WATER LINE BURIED BELOW"
2. During the backfilling process, all PVC and Ductile Iron water mains, service lines and system appurtenances shall have a continuous warning tape placed in the open trenches or access pits immediately above them and throughout their length at a depth of eighteen (18) inches above the utility line surface. The tape shall be two (2) inches wide. At tees, tape ends, etc., the warning tape shall be tied together (spliced) with a knot to create a continuous warning tape throughout the length of the pipeline and associated branch lines, appurtenances, etc.

PART 3 EXECUTION

3.01 TRENCH EXCAVATION

- A. All trench excavations shall comply with OSHA Standards.
- B. Trench excavation shall include material of every description and of whatever substance encountered, including brick pavement, rock, and boulders. Where encountered in the trench, rock shall be excavated to a depth no less than 6-inches below the bottom of the pipe.
- C. Pavement shall be cut with a saw, wheel or pneumatic chisel along straight lines before excavating.
- D. Strip and stockpile topsoil from grassed areas crossed by trenches. At the Contractor's option, topsoil may be otherwise disposed of and replaced, when required, with approved topsoil of equal quality.
- E. Ensure that trenching does not interfere with normal 45 degrees bearing splay of any building foundation.
- F. While excavating and backfilling is in progress, traffic shall be maintained, and all utilities and other property protected as provided in the General Conditions and other Specification Sections.
- G. Do not disturb soil within the branch spread of existing trees or shrubs that are to remain. If necessary to excavate through roots, perform work by hand and cut roots with a sharp axe.
- H. Except where trees are indicated to be removed, trees shall be protected from injury during construction operations. No tree roots over 2 inches in diameter shall be cut without express permission of the Engineer. Trees shall be supported during excavation by any means previously reviewed by the Engineer.
- I. Correct unauthorized excavations as directed at no cost to the Owner.
- J. Trenches shall be excavated to the depth and in widths no larger than the limit described in Section 01046 Control of Work Paragraphs 1.16 and 1.17. The bottom of the excavations shall be firm, dry and free of irregularities lumps, projections and in all respects acceptable to the Engineer.
- K. Excavation and dewatering shall be accomplished by methods which preserve the undisturbed state of subgrade soils. The trench may be excavated by machinery to or just below the

designated subgrade, provided that material remaining in the bottom of the trench is no more than slightly disturbed. Subgrade soils which become soft, loose, "quick," or otherwise unsatisfactory as a result of inadequate excavation, dewatering or other construction methods shall be removed and replaced by crushed stone as required by the Engineer at the Contractor's expense.

- L. Clay and organic silt soils are particularly susceptible to disturbance due to construction operations. When excavation is to end in such soils, use a smooth-edge bucket to excavate the last 1-foot of depth.
- M. Service lines in open cut areas are to be laid on well-graded sand bedding; the trench may be excavated by machinery to the normal depth of the pipe provided that the material remaining in the bottom of the trench is no more than slightly disturbed and does not become softened.
- N. The maximum amount of open trench permitted in any one location shall be 100 feet, or the length necessary to accommodate the amount of pipe installed in a single day, whichever is greater. All trenches shall be fully backfilled at the end of each day or, in lieu thereof, shall be covered by recessed heavy steel plates adequately braced pinned and capable of supporting vehicular traffic in those locations where it is impractical to backfill at the end of each day. If the Owner needs to access the corporation or curb stop for a flush and turn-on of the service in the event the Contractor cannot gain access to the property, the trench shall not be plated with a heavy steel plate. The Contractor shall wait for the Owner to arrive on the site and not leave the Customer without water service. Alternately, the Contractor can backfill the service.

3.02 DISPOSAL OF MATERIALS

- A. Excavated material shall be stacked without excessive surcharge on the trench bank or obstructing free access to hydrants and water valves. Inconvenience to traffic and abutters shall be avoided as much as possible. Excavated material shall be segregated for use in backfilling as specified below.
- A. It is expressly understood that all surplus material shall be removed from the site of the work and properly disposed of at the end of each workday. It shall be assumed that surplus material is contaminated non-hazardous and shall be transported, stockpiled, and disposed of in accordance with Section 02120.
- B. Should conditions make it impracticable or unsafe to stack material adjacent to the trench, the material shall be hauled and stored at a location provided by the Contractor. When possible, it shall be rehandled and used in backfilling the trench, see paragraph 3.05.

3.03 EXCAVATION BELOW GRADE AND REFILL

- A. Whatever the nature of unstable material encountered or the groundwater conditions, trench drainage shall be complete and effective.
- B. If the Contractor excavates below grade through error or for the Contractor's own convenience, or through failure to properly dewater the trench, or disturbs the subgrade before dewatering is sufficiently complete, Contractor may be directed by the Engineer to excavate below grade as set forth in the following paragraph, in which case the work of excavating below grade and furnishing and placing the refill shall be performed at his own expense.

- C. A 6-inch thick layer of fine aggregate sand shall be placed below the pipe. Fine aggregate sand or crushed stone shall then be placed in 6-in layer increments and thoroughly compacted up to the 12 inches above the pipe crown pipe. If directed by the Engineer, crushed stone shall be used for refill of excavation below grade.

3.04 WARNING TAPE

- A. During the backfilling process, all service lines and system appurtenances shall have a continuous warning tape, as specified in Part 2 of this Section, placed immediately above them and throughout their length at a depth of eighteen (18) inches above the utility line surface. At tees, tape ends, etc., the warning tape shall be tied together (spliced) with a knot to create a continuous warning tape throughout the length of the pipeline and associated branch lines, appurtenances, etc.

3.05 BACKFILLING

- A. Contractor shall have a technician from an approved Soils Testing Laboratory on-site in accordance with Section 01410.
- B. As soon as practicable after the pipe has been laid and jointed, backfilling shall begin and thereafter be prosecuted expeditiously. Backfilling shall be in compliance with CTDOT Standard Specifications.
- C. Where the pipes are laid in streets, the remainder of the trench up to the bottom of Initial Pavement shall be backfilled with compacted backfill as referenced in Appendix B and as specified in Section 02230. At no time shall backfill layers exceed six (6) inches.
- D. Water Service Connections in the open cut areas shall be installed on a minimum of a 6-inch bed of well-graded fine aggregate sand and shall be covered with a minimum of 6-inches of well-graded fine aggregate sand.
- E. To prevent movement of all pipes, dumping backfill material into the trench and then spreading will not be permitted until material has been placed and compacted to a level 1-ft over the pipe.
- F. Backfill shall be brought up evenly on all sides. Each layer of backfill material shall be thoroughly compacted by rolling, tamping, or vibrating with mechanical compacting equipment or hand tamping, to tamping to 95 percent compaction according to ASTM D 1557 or 98 percent according to ASTM D 698. If rolling is employed, it shall be by use of a suitable roller or tractor, being careful to compact the fill throughout the full width of the trench.
- G. All percentages of compaction specified herein shall be related to the maximum dry density as established by Method D, ASTM D1557-70, and verified in the field by the Contractor's field/laboratory testing representative utilizing ASTM D1556-68, D2167-66 or an approved nuclear density testing device. Prior to placing the backfill material, where required by the Engineer, at least one laboratory test shall be made on a representative sample to determine gradation and the moisture density characteristics of the proposed material.
- H. Nuclear compaction tests shall be performed by the technician from the Soils Testing Laboratory once per excavation when soil testing lab is on-site as specified, or at the discretion of the Engineer's representative, to confirm the specified compaction is obtained.

- I. Where other methods are not practicable, compaction shall be by use of hand or pneumatic ramming with tools weighing at least 20 lbs. The material being spread and compacted in layers not over 6-in thick. If necessary, sprinkling shall be employed in conjunction with rolling or ramming.
- J. Subject to approval by the Engineer, fragments of ledge and boulders smaller than 6-in may be used in trench backfill provided that the quantity, in the opinion of the Engineer, is not excessive. Rock fragments shall not be placed until the pipe has at least 2-ft of earth cover. Small stones and rocks shall be placed in thin layers alternating with earth to ensure that all voids are completely filled. Fill shall not be dropped into the trench in a manner to endanger the pipe. All other rock, ledge, boulders, and other material unsuitable for backfilling shall be removed from the site and disposed of by the Contractor.
- K. Bituminous paving shall not be placed in backfilling. Frozen material shall not be used under any circumstances.
- L. Do not compact by puddling or water jetting.
- M. Broom and hose-clean road surfaces immediately after backfilling. Employ dust control measures throughout the construction period.
- N. Heavy, self-propelled equipment shall place and compact materials in equal continuous layers not exceeding 9 to 12 inches loose depth. 2. Hand-guided equipment shall place and compact material in equal continuous layers not exceeding 4 to 6 inches loose depth.

3.06 RESTORING TRENCH SURFACE

- A. Where the trench occurs adjacent to paved streets, in shoulders or sidewalks, thoroughly consolidate the backfill and maintain the surface as the work progresses. If settlement takes place, immediately deposit additional fill to restore the level of the ground.
- B. The surface of any driveway or any other area which is disturbed by the trench excavation and which is not a part of the paved road shall be restored to a condition at least equal to that existing before work began.
- C. In sections where the pipeline passes through grassed areas, and at the Contractor's own expense, remove and replace the sod, or loam and seed the surface as per Section 02930 and to the satisfaction of the Engineer as soon as conditions permit, unless otherwise directed due to weather conditions. All grassed areas restoration must be completed within 90 days from the date of replacement.
- D. Where the trench occurs in paved area, the pavement shall be restored to maintain smooth even grade that matches the adjacent pavement and preconstruction conditions as detailed in Section 02576.

END OF SECTION

SECTION 02230 GRANULAR FILL MATERIALS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 DESCRIPTION

- A. Granular fill materials are specified in this Section, but their use for bedding pipe, pavement base, and similar uses are specified in detail elsewhere. The Engineer may order the use of fill materials for purposes other than those specified in other Sections if, in his/her opinion, such use is advisable.
- B. Granular fill materials shall be natural or processed mineral soils, graded crushed stone or gravel obtained from off-site sources. Granular fill materials shall be free of all organic material, trash, snow, ice, frozen soil, or other objectionable materials which may be compressible, or which cannot be properly compacted. Soft, wet, plastic soils which may be expansive, clay soils having a natural, in-place water content in excess of 30 percent, soils containing more than 5 percent (by weight) fibrous organic materials, and soils having a plasticity index greater than 30 shall be considered unsuitable for use as granular fill materials. Granular fill materials shall have a maximum of 1 percent expansion when testing is performed on a sample remolded to 95 percent of maximum dry density (per ASTM D1557) at 2 percent below optimum moisture content under a 100 lbs./sq. ft. surcharge.

1.03 RELATED WORK

- A. Trenching, Backfilling, and Compaction are included in Section 02221.
- B. Sedimentation and Erosion Control is included in Section 02270.
- C. Pavement Repair and Resurfacing is included in Section 02576.
- D. Loaming and Seeding is included in Section 02930.

1.04 QUALITY ASSURANCE

- A. Laboratory Testing
 - 1. Engage the soils testing laboratory to perform:
 - a. Grain size analyses of samples of imported materials to determine their suitability for use as backfill or fill material in conformance to the materials requirements specified herein.
 - b. The appropriate Proctor analyses to determine the maximum dry densities required for compaction testing as specified elsewhere in the Contract Documents.

- c. Test results and determinations of suitability shall be delivered to the resident project representative no later than 3 days prior to the placement of backfill or fill materials.

1.05 SUBMITTALS

- A. Submit to the Engineer all laboratory testing and certification prior to any work.

PART 2 PRODUCTS

2.01 BORROW AND AGGREGATE MATERIALS

- A. Common fill shall consist of mineral soil, substantially free of clay, organic material, loam, wood, trash, snow, ice, frozen soil, and other objectionable material which may be compressible, or which cannot be compacted properly. Common Fill shall not contain granite blocks, broken concrete, masonry rubble, asphalt pavement, or any material larger than 6-in in any dimension. It shall have physical properties, as approved by the Engineer, such that it can be readily spread and compacted. Common Fill shall have a plasticity index of less than 15 and shall conform to the following gradation limits: material larger than 1/2-inch in its largest dimension.

<u>Sieve Size</u>	<u>Percent Passing</u>
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No. 40	75
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No. 200	30
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- B. Native fill shall be as classified a common fill if it meets the specifications above for common fill.
- C. Select Fill shall be as specified above for common fill except that the material shall contain no stones larger than 2-inches in its largest dimension.
- D. Well-Graded Sand shall contain less than 15 percent fines (Silt and Clay). Sand shall be in particle size gradation within the following limits (ASTM D422) and have a Unified Soil Classification of SW per ASTM D2487. The material shall contain no stones, shell fragments or deleterious material larger than 1/2 -inch in its largest dimension.

<u>Sieve Size</u>	<u>Percent Passing</u>
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No. 4	100
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No. 200	5 maximum
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- E. Gravel Borrow: In accordance with State of Connecticut, Department of Transportation Standard Specifications for Road, Bridges, Facilities, and Incidental Construction, Subsection M.02.01 and Subsection M.02.06. Gravel Borrow shall also include:
 - 1. Bank Run or Plant-Processed Sand and Gravel: Shall be gravel of such size that 100% passes a sieve having 2-inch square openings and shall be reasonably uniform, graded down to the 100-mesh sieve size.

2. Reclaimed and Processed Granular Material: in accordance with Subsection M.01.02.2 and meeting gradation requirements specified in Subsection M.02.06.
- F. Crushed Stone or Crushed Gravel: In accordance with State of Connecticut, Department of Transportation Standard Specifications for Roads, Bridges, Facilities, and Incidental Construction, Subsection M.02.01 and Subsection M.02.06.
- G. Fine Aggregate for Asphalt or Portland Cement Concrete: In accordance with State of Connecticut, Department of Transportation Standard Specifications for Roads, Bridges, Facilities, and Incidental Construction, Subsection M.01.03.
- H. Fine Aggregate – Sand: Natural river or bank sand; free of silt, clay, loam, friable or soluble materials, and organic matter; graded according to ASTM C 33; within the following limits:
 1. Percent Passing per Sieve Size:
 - No. 4: 95 to 100.
 - No. 8: 80 to 100.
 - No. 16: 50 to 85.
 - No. 30: 25 to 60.
 - No. 50: 10 to 30.
 - No. 100: 2 to 10.
- I. Flowable Fill used as void fill shall be comprised of a mixture of Portland cement, coarse aggregate, fine aggregate, and water. Materials, methods of preparation, and placement techniques shall comply with the requirements of Section 03301 as for concrete. Design mix shall result in a flowable material with a 28-day compressive strength of approximately 75 to 125 psi and shall require no subsequent vibration or tamping to achieve consolidation. Recommended mix shall be as follows:
 1. Portland Cement: 50 lbs/cu yd.
 2. Coarse Aggregate: 1700 lbs/cu yd.
 3. Fine Aggregate: 1900 lbs/cu yd.
 4. Water: 300 lbs/cu yd, or as needed.
- J. Flowable Fill shall not contain any materials or products that will corrode the pipe.
- K. Suitability of Backfill Material:
 1. Suitable backfill material is free of stones larger than half the size of the compacted lift as provided for in Connecticut Highway Standards, construction debris, trash frozen soil, and other foreign material. It consists of well graded gravel and sand or processed gravel.
 2. Unsuitable backfill materials consist of the following:
 - Inorganic silts and clays;
 - Organic silts;
 - Organic soils including peat, humus, topsoil, swamp soils, mulch, and soils containing leaves, grass, branches, and other fibrous vegetable matter.

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 02270 SEDIMENTATION AND EROSION CONTROL

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required and perform all installation, maintenance, removal, and area cleanup related to sedimentation control work as shown on the Details and as specified herein.

1.03 RELATED WORK

- A. Environmental Protection Procedures are included in Section 01110.
- B. Trenching, Backfilling and Compaction specifications are included in Section 02221.
- C. Granular Fill Materials are included in Section 02230.

1.04 SUBMITTALS

- A. Submit to the Engineer, in accordance with Section 01300 and within 10 days after award of Contract, technical product literature for all commercial products to be used for sedimentation and erosion control.

1.05 QUALITY ASSURANCE

- A. Be responsible for the timely installation and maintenance of all sedimentation control devices necessary to prevent the movement of sediment from the construction site, staging or laydown areas to off-site areas or into the sewer and/or drainage systems. Measures in addition to those shown in the details necessary to prevent the movement of sediment off site shall be installed, maintained, removed, and cleaned up at the expense of the Contractor. No additional charges to the Owner will be considered.
- B. Sedimentation and erosion control measures shall conform to the requirements outlined in the Connecticut Soil Erosion and Sediment Control Handbook, most recent edition, which are incorporated herein by reference.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Filter Fabric:

1. Filter fabric shall be a pervious sheet of polypropylene, nylon, polyester, ethylene, or similar filaments and shall conform to requirements listed in the Connecticut Guidelines for Soil Erosion and Sedimentation Control.
- B. Crushed stone shall be as specified in Section 02230 “Granular Fill Materials.”
- C. Hay/straw bales shall be placed around catch basins that discharge into wetlands, water supply or surface water bodies. Hay/straw bales shall be utilized, along with other sediment filtration devices, in wetland buffer zones, if designated on the Details in Appendix B. Hay/Straw Bales shall meet the following requirements:
 1. Wire bound or string tied.
 2. Securely anchored by at least 2 stakes driven through the bale into the ground or other methods approved by the Engineer.
 3. Chinked (filled by wedging) with hay to prevent water from escaping between bales.

PART 3 EXECUTION

3.01 GENERAL

- A. Take sufficient precautions during construction to minimize the runoff of polluting substances such as silt, clay, fuels, oils, bitumen, and calcium chloride into the supplies and surface waters of the State. Special precautions shall be taken in the use of construction equipment to prevent operations that promote erosion.
- B. Prevent the flow or seepage of runoff to catch basins and drainage areas. Drainage shall not be disposed of until silt and other sedimentary materials have been removed. Particular care shall be taken to prevent the discharge of unsuitable drainage to a water supply or surface water body.
- C. Measures for control of erosion must be adequate to ensure that turbidity in the receiving water will not be increased more than 10 standard turbidity units (s.t.u.), or as otherwise required by the State or other controlling body, in waters used for public water supply or fishing unless limits have been established for the particular water. In surface water used for other purposes, the turbidity must not exceed 25 s.t.u. unless otherwise permitted.

3.02 INSTALLATION

- A. Silt Fence Installation:
 1. Silt fence shall be positioned as necessary to prevent off site movement of sediment produced by construction activities as directed by the Engineer.
 2. Dig trench approximately 6-inches wide and 6-inches deep along proposed fence lines.
 3. Drive metal stakes, 8-feet on center (maximum) at back edge of trenches. Stakes shall be driven 2-feet (minimum) into ground.

4. Hang filter fabric on wire carrying to bottom of trench with about 6-inches of fabric laid across bottom of trench for the entire length of the fence as no gaps between the bottom of the fabric and the ground surface will be permitted. Secure fabric to posts with self-fastening tabs.
 5. Backfill trench with excavated material and tamp.
 6. Install prefabricated silt fence according to manufacturer's instructions.
- B. Construct inlet filters using filter fabric as specified in this Section and as shown in the details. Filter fabric shall be secured to inlet frame with bricks and in a fashion as to minimize impedance on traffic flow.
- C. Construct sediment traps using hay bales and filter fabric as shown in the details in Appendix B. Filter fabric shall be as specified in this Section. Crushed stone may be used in place of hay bales.
- D. Staging areas, access ways, and construction entrance shall be surfaced with a minimum depth of 12-inches of crushed stone. If the egress is to a County road, then a 20 feet long paved transition shall be provided between the edge of pavement and the stone access pad.

3.03 PROVISIONS FOR CONTROL OF EROSION

- A. The Contractor shall take sufficient precautions during construction to minimize the runoff of polluting substances such as silt, clay, fuels, oils, bitumen, and calcium chloride into the supplies and surface waters of the State. Special precautions shall be taken in the use of construction equipment to prevent operations that promote erosion.
- B. The Contractor shall prevent the flow or seepage of drainage back into the drainage area. Drainage shall not be disposed of until silt and other sedimentary materials have been removed. Particular care shall be taken to prevent the discharge of unsuitable drainage to a water supply or surface water body.
- C. As a minimum, the following shall apply:
1. Staked bales of hay shall be provided at points where drainage from the work site leaves the site, to reduce the sediment content of the water. Sufficient bales of hay shall be provided such that all flow will filter through the hay. Other methods that reduce the sediment content to an equal or greater degree may be used as approved by the Engineer.
 2. Drainage leaving the site shall flow to watercourses in such a manner to prevent erosion.
 3. Loaming and seeding or mulching of cross-country areas shall take place as soon after laying of the pipeline as practicable. This shall be considered part of the pipeline work, and full payment for the pipeline work need not be made until it has been completed.
- D. Measures for control of erosion must be adequate to assure that turbidity in the receiving water will not be increased more than 10 standard turbidity units (s.t.u.), or as otherwise required by the State or other controlling body, in waters used for public water supply or fish unless limits have been established for the particular water. In surface water used for other purposes, the turbidity must not exceed 25 s.t.u. unless otherwise permitted.

3.04 MAINTENANCE AND INSPECTIONS

A. Inspections:

1. Make a visual inspection of all sedimentation control devices once per week and promptly before and after every rainstorm.
2. If such inspection reveals that additional measures are needed to prevent movement of sediment to offsite areas or into the vent trench, promptly install additional devices as needed. Sediment controls in need of maintenance shall be repaired promptly.

B. Device Maintenance:

1. Silt Fences:
 - a. Remove accumulated sediment once it builds up to 1/2 of the height of the fabric.
 - b. Replace damaged fabric, or patch with a 2-foot minimum overlap.
 - c. Make other repairs as necessary to ensure that the fence is filtering all runoff directed to the fence.
2. Filter Boxes:
 - a. Replace crushed stone when it becomes saturated with silt.
3. Add crushed stone to access ways and staging area and laydown yard as necessary to maintain a firm surface free of ruts and mudholes.

3.05 REMOVAL AND FINAL CLEANUP

- A. Once the site has been fully stabilized against erosion, remove sediment control devices and all accumulated silt. Dispose of silt and waste materials in proper manner. Regrade all areas disturbed during this process and stabilize against erosion with surfacing materials.

END OF SECTION

SECTION 02311
EXCAVATION SUPPORT AND PROTECTION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. The work specified in this Section includes requirements for excavation and support of temporary excavations, and trenches. The Contractor shall design, furnish, install, and maintain a system of supports, including all bracing and associated items, to retain excavations in a safe manner and to control ground movements. Upon completion of the required construction, the system of supports shall be completely removed and the excavation and staging area sites restored as discussed herein.
- B. The work shall include site grading; fencing, barricades and signing; construction staging areas; design and construction of excavation support systems; disposal of excavated material, surface water, and groundwater; backfilling; and site restoration. Work shall include all labor, materials, and equipment required to complete excavation support.
- C. Retain the services of a professional engineer registered in the State of Connecticut to prepare excavation support and protection system designs and submittals described herein. Work shall include the design, equipment, materials, installation, protection, and monitoring of geotechnical instrumentation required to monitor the performance of the excavation support system as required herein.
- D. All excavations and support systems shall conform to applicable OSHA excavation, trenching, and shoring standards which are contained in the U.S. Code of Federal Regulations 29 (C.F.R.) 1926.650-1926.653, other federal, state or local requirements. In the event of a conflict, comply with the more restrictive applicable requirements.

1.03 RELATED WORK

- A. Dewatering and Drainage are included in Section 02140.
- B. Rock and Boulder Excavation are included in Section 02213.
- C. Trenching, Backfilling, and Compaction are included in Section 02221.
- D. Granular Fill Materials are included in Section 02230.

1.04 SUBMITTALS

- A. Submit to the Engineer in accordance with Section 01300, Shop Drawings and design calculations for the Contractor-designed excavation support system stamped by a Professional Engineer in the State of Connecticut when excavation support is required per OSHA or State laws.

B. Shop Drawings shall include:

1. Overall plan layout of the system, indicating clearances, dimensions, material properties, member sizes, locations, spacing and penetrations depth of all members, locations of various types of lateral supports. Indicate existing and proposed utilities, structures or other obstruction, location and type of instrumentation and monitoring points within the area of influence of the excavation.
2. Wall elevations and locations of all bracing.
3. Overall sequence of installation and removal of bracing, indicating levels to which the work will be carried out before bracing is installed or removed.
4. Method of preloading bracing (if required) and the preload for each member, and the method of locking-off the preload. Include detailed drawings of the connections, jacking supports and method of shimming.
5. Details, layout, arrangement, equipment requirements, and method of construction of the proposed excavation support system.
6. Procedures for resolving difficulties arising from misalignment of members exposed during excavation, and criteria for implementing those procedures.

C. Design calculations shall include:

1. Loads on the excavation support system for all stages of excavation, bracing removal, and concrete placement, including material and equipment loads on the adjacent ground during construction.
2. Design of wall and all bracing members including all details for all stages of construction.
3. Theoretical deflections of excavation support system and deformation of structures, pipelines, and other improvements located within the area of influence of the excavation.
4. Submit to the Engineer for review and acceptance, a plan of action to be implemented in the event any threshold value for deformation is reached. The plan of actions shall be positive measures by the Contractor to limit further movement of the wall including but not limited to trenching for struts and wales, placement of granular earth berms against the wall, installation of additional struts, or combinations thereof. The details of the mitigating measures shall include a schedule of implementation, location and/or availability of materials, structural details for all connections to the wall and support elements, and a detailed description of the method of implementation. The Contractor shall be prepared to work 24 hours per day to implement such measures. The remedial work/mitigating measures shall be at no additional cost to the Owner.

D. Submit quality control measures as required to ensure that the performance of the excavation support system is consistent with the approved shop drawings and the requirements herein.

E. Submit welder qualifications and weld procedures in accordance with AWS D1.1.

F. Submit Contractor's and Design Engineer's qualifications as described in herein.

G. At least one copy of the design shall be maintained at the job site during excavation that includes a plan indicating the sizes, types, and configurations of the materials to be used in the protective system, and the identity of the registered engineer who approved the design.

- H. Do not proceed with any support of excavation or protection activities until the submittal has been approved by the Engineer.
- I. Design Engineer's documentation shall include:
 - 1. On-site inspections of the excavation support system as the systems are constructed.
 - 2. Review of quality control measures and performance data.
 - 3. Certification that the excavation support system is constructed per the applicable design following completion of each support system and following any modifications by Contractor during construction.

1.05 QUALITY ASSURANCE

- A. Regulations: Perform all work in accordance with current applicable regulations and codes of all Federal, State and local agencies.
- B. The Contractor shall have at least 5 years of experience with work compatible with the Work shown and specified, employing labor and supervisory personnel who are similarly experienced in this type of Work.
- C. The Contractor's Design Engineer shall be a Registered Professional Engineer in the State in which the work is located with at least 5 years professional experience in the design and construction of support of excavation systems and shall have completed not less than 5 successful excavation support projects of equal type, size, and complexity to that required for the work.

1.06 DESIGN REQUIREMENTS

- A. The design of temporary excavation support systems is the responsibility of the Contractor. The design calculations and drawings shall be prepared, stamped and signed by a Professional Engineer registered in the State of Connecticut, who is experienced in designing similar excavation support systems.
- B. Design temporary excavation support systems in accordance with the requirements of this Section. These criteria are the minimum acceptable standards.
- C. All underground utility lines shall be identified, located, and protected from damage or displacement. Utility companies and other responsible authorities shall be contacted to locate and mark the locations and, if they so desire, direct or assist with protecting the underground installation. However, all mark outs of utilities shall be considered by the Contractor as approximate and the Contractor shall be solely responsible for employing prudent techniques to determine the actual location. When required, the Contractor shall obtain an excavation permit from the local authority having jurisdiction prior to the initiation of any excavation work.
- D. Design excavation support systems in accordance with all OSHA requirements and other local and agency requirements.
- E. Design the support system to minimize horizontal and vertical movements and to protect adjacent structures and utilities from damage.

- F. Excavations below the level of the base of any adjacent foundation or retaining wall shall not be permitted unless the design of the excavation and bracing includes an analysis of the stability of the structure supported by the foundation and as necessary, incorporates required bracing/underpinning of the foundation.
- G. For support systems in which bracing is installed between opposite sides of the excavation, design the excavation support of both sides to be nearly the same as feasible.
- H. Where necessary to resist point loads, pipe piles used as soldier piles shall be filled with concrete with a compressive strength not less than 3,000 psi. The strength of the concrete shall not be considered in the design of the pipe pile for bending stress.
- I. Design, install, operate, and maintain groundwater control system to control groundwater inflows, prevent piping or loss of ground, and maintain the stability of the excavation. Refer to the requirements of Section 02140.
- J. Design review and field monitoring activities by the Owner or by the Engineer shall not relieve the Contractor of his/her responsibilities for the work.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Soldier piles and structural steel members shall conform to ASTM A572 or ASTM A242 unless approved otherwise. No members with permanent deformations are to be provided. Members shall not be spliced unless approved by the Engineer.
- B. Pipe piles used as soldier piles shall conform to ASTM A252.
- C. Steel sheet piling shall conform to ASTM A328 or ASTM A572 or ASTM A690 unless approved otherwise.
- D. Liner plates shall be fabricated from structural quality hot-rolled carbon steel sheets or plates conforming to ASTM A1101 with the following minimum properties before cold forming:
 - E. Plates shall be of either the two- or four-flange type, punched for bolting on all sides. Bolt spacing shall be in accordance with the manufacturer's standard spacing and shall be multiples of the plate length so that the plates having the same curvature shall be interchangeable. Bolt numbers and pattern shall be determined by the liner supplier.
- F. Tensile Strength: 42,000 psi
 - 1. Yield strength: 28,000 psi
- G. Concrete shall conform to Section 03301 or ASTM C33 and ASTM C150 unless otherwise approved.
- H. All timber shall be structural grade with a minimum allowable flexural strength of 1100 psi. Timber lagging shall be at least 3 inches thick and free of large or loose knots.

PART 3 EXECUTION

3.01 GENERAL

- A. Commence installation of support system and excavations only after shop drawings have been reviewed and accepted by the Engineer.
- B. All required instrumentation shall be installed and initialized prior to the start of work.
- C. Methods of construction for excavations shall be such as to ensure the safety of the Work, Contractor's employees, Engineer, and Owner's employees and inspectors, the public and adjacent property and improvements, whether public or private.
- D. Before beginning construction at any location of this project, adequately protect existing structures, utilities, trees, shrubs, and other existing facilities. The repair of or compensation for damage to existing facilities shall be at no additional cost to the Owner.
- E. As a minimum, place fencing or suitable barricades, gates, lights, and signs as necessary around the excavations and staging areas to provide for public safety. Provide personnel to serve as flagmen and watchmen.
- F. Install excavation support systems in accordance with the approved shop drawings and applicable permits.
- G. All voids between the excavation support system and earth shall be filled with materials acceptable to the Engineer.
- H. If unstable material is encountered during excavation, all necessary measures shall be taken immediately to contain it in place and prevent ground displacement.
- I. If settlement or deflections of supports indicate that support system requires modification to prevent excessive movements, redesign and resubmit revised shop drawings and calculations to the Engineer at no additional cost to the Owner.
- J. Sufficient quantity of material shall be maintained on site for the protection of work and use in case of accident or emergency.
- K. All welding shall conform to the applicable provisions of ANSI/AWS D1.1.

3.02 PORTABLE TRENCH BOXES

- A. Portable trench boxes or sliding trench shields may be used for the protection of workers only.
- B. Additional excavation, backfilling, and surface restoration required as the result of trench box use shall be at no additional cost to the Owner.
- C. Trench boxes or shields shall be designed, constructed, and maintained to meet acceptable engineering and industry standards.
- D. Shields shall be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads.

- E. A copy of the trench box manufacturer's specifications, recommendations, and limitations shall be in written form and maintained at the job site during all excavation work.

3.03 SOLDIER PILES

- A. Install soldier piles with the minimum embedment depths as shown on approved shop drawings.
- B. Driven piles shall be installed with driving shoes where hard driving is anticipated.
- C. For soldier piles installed in predrilled holes, provide casing or other methods of support as necessary to prevent caving of holes and loss of ground.
- D. Predrilled holes for soldier piles shall be backfilled with concrete from the pile tip elevation to the elevation of the bottom of the excavation. The remainder of the predrilled hole shall be backfilled with lean concrete or sand. Concrete strength shall be in accordance with the approved shop drawings.
- E. The predrilled hole diameter shall be sufficient to allow for proper alignment and concrete backfilling of the pile.
- F. Driven soldier piles shall be advanced without the aid of a water jet.
- G. Provide timber lagging of sufficient thickness to withstand earth pressures and in accordance with the approved shop drawings.
- H. Install lagging such that ground loss does not occur between adjacent or below the lowest board. As excavation proceeds, the maximum height of unlagged face of excavation shall not exceed 4 feet. The unlagged face shall not exceed 2-ft if water seeps or flows from the face of the excavation or if the face of the excavation becomes unstable.
- I. As installation progresses, backfill the voids between the excavation face and the lagging. Pack with materials such as hay, burlap, or geotextile filter fabric where necessary to allow drainage of groundwater without loss of ground.

3.04 STEEL SHEET PILING

- A. Install steel sheet piling with the minimum embedment depths as shown on the approved shop drawings.
- B. Drive sheeting in plumb position with each sheet pile interlocked with adjoining piles for its entire length to form a continuous diaphragm throughout the length of each run of the wall, bearing tightly against the original ground. Exercise care in driving so that interlocking members can be extracted without damaging adjacent structures or utilities. The methods of driving, cutting, and splicing shall conform to the approved shop drawings.
- C. Use templates or other temporary alignment facilities to maintain piling line.
- D. Prior to installation, the sheet piles shall be thoroughly cleaned and inspected for defects and proper interlock dimensions. Provide a tool for checking the interlock dimensions.

- E. Each sheet pile shall have sufficient clearance in the interlocks to slide, under its own weight, into the interlock of the sheet pile previously placed.
- F. Excavation shall not be carried in advance of steel sheet piling installation.
- G. Where obstructions are anticipated, pre-excavation or pre-drilling along the sheet pile wall alignment shall be conducted at no additional cost to the Owner. Pre-excavation and pre-drilling shall not extend below the lowest excavation level or into bearing soils for existing or future structures.
- H. Obstructions encountered before the specified embedment for piles shall be removed. Where obstructions cannot be removed, the sheet pile system shall be re-evaluated by the Contractor's Design Engineer for the resulted reduced embedment and additional toe stability measure implemented, as required or for realignment of the sheet pile wall. Submittal of the proposed measures shall be provided.
- I. Damaged piling or piling with faulty alignment shall be withdrawn and new piling driven properly in its place. The cost of such additional work shall be considered as part of the pile driving and shall be borne by the Contractor.

3.05 LINER PLATES

- A. Liner plates shall be installed as soon as excavation has progressed sufficiently for the next ring of plates to be installed. A complete circumferential ring of liner plates shall be installed prior to continuing the excavation. Installing more than one incomplete ring of liner plates at any time is not acceptable. Plates shall be staggered in the vertical direction to facilitate shaft strength and leakage resistance.
- B. Liner plates shall be grouted in accordance with the approved shop drawings.

3.06 INTERNAL BRACING

- A. Provide internal bracing to carry maximum design load without distortion or buckling.
- B. Include web stiffeners, plates, or angles as needed to prevent rotation, crippling, or buckling of connections and points of bearing between structural steel members. Allow for eccentricities caused by field fabrication and assembly.
- C. Install and maintain all bracing support members in tight contact with each other and with the surface being supported.
- D. Coordinate excavation work with the installation of bracing. Excavation shall extend no more than 2 feet below any brace level prior to installation of the bracing.
- E. Use procedures that produce uniform loading of a bracing member without eccentricities or overstressing and distortion of members of the system.

3.07 REMOVAL OF EXCAVATION SUPPORT

- A. Do not remove internal bracing and transfer loads to the permanent structure without prior acceptance of the Engineer.

- B. Removal shall begin at and progress from the bottom of the excavation. Members shall be released slowly as to note any indication of the possible failure of the remaining members or possible cave-in of the sides of the excavation.
- C. Backfilling shall progress together with the removal of support systems from excavations.
- D. Unless otherwise indicated, remove all portions of excavation support.
- E. Do not remove vertical support members that were installed within the zone of influence of new or existing structures. The zone of influence is defined as a zone extending down and away from the outer edge of the structure at 1 horizontal to 1 vertical. Support members installed within this zone shall be cut off at 5 ft below finished grade and abandoned in place.
- F. No untreated wood shall remain as part of the abandoned portion of the work.
- G. When removing the excavation support system, do not disturb or damage adjacent buildings, structures, waterproofing material, or utilities. Fill voids immediately with lean concrete or well-graded cohesionless sand, as indicated or as directed by the Engineer.
- H. Remove material of the excavation support system from the site immediately.

END OF SECTION

SECTION 02576
PAVEMENT REPAIR AND RESURFACING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, material, equipment, and incidentals required and replace all pavement removed over trenches or excavations or otherwise disturbed by the Contractor's operations.
- B. New pavement in streets shall consist of initial pavement over all trenches. Final bituminous concrete pavement shall be placed over trenches and excavations on roads based on executed work and shall match existing pavement surface.
- C. Final pavement shall match existing pavement structure and thickness unless otherwise required by the Town of Putnam Highway Department or CTDOT permit issued.
- D. Streets, driveways, parking areas or sidewalk pavements damaged or disturbed by the Contractor's operations shall be repaired, replaced, or restored in accordance with the requirements specified herein and as directed for the respective type of pavement replacement and in a manner satisfactory to the Owner and Town.
- E. Obtain all necessary Town and State permits for road opening and comply with all rules and regulations governing road opening permits.
- F. Damage to the pavement outside of the limits of work which, in the opinion of the Engineer, is not necessary to complete the Work and is a result of activities by the Contractor, his laborers, agents or subcontractors shall be repaired in a manner satisfactory to the Engineer, Owner, Town, and State at the expense of the Contractor.
- G. Limits of pavement and pavement details are shown on the details in Appendix B.
- H. Where conflicts exist between this specification and the Town of Putnam Standard Details (WPCA 2013-001 Record Drawings, Sheets CD-1 through CD-3), the Town's standard details shall govern. Final pavement restoration shall match existing pavement structure, thickness, and limits unless otherwise required by the Town's road opening permit.

1.03 RELATED WORK

- A. Trenching, Backfilling, and Compaction are included in Section 02221.
- B. Granular Fill Materials are included in Section 02230.

1.04 REFERENCE STANDARDS

- A. Except as otherwise specified herein, the current Standard Specifications for Roads, Bridges, Facilities, and Incidental Construction FORM 819 including all addenda, issued by the State of Connecticut Department of Transportation (CTDOT), shall apply to materials and workmanship required for the work of this Section.
- B. American Association of State Highways and Transportation Officials (AASHTO):
 - 1. AASHTO M144 - Standard Specification for Calcium Chloride.
- C. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.05 MAINTENANCE

- A. The CONTRACTOR will be held responsible for any pavement failures due to settlement or failures associated with his excavations, for a period of two years from the date of the pavement's installation and acceptance.
- B. If, at any time during the five year period following final acceptance of paving work under this contract, any part of the paving or surfacing work which, in the opinion of the OWNER, requires replacement, repair, or remedial action to damaged private or public property (caused by any defect in the paving work), the OWNER will require the CONTRACTOR to make the necessary repairs or replacement to the OWNER's satisfaction within 10 days of notification.
- C. At the OWNER's discretion, the OWNER may employ other persons to make such repairs and replacement. The CONTRACTOR agrees, upon demand, to reimburse the Town all amounts expended for such repairs or replacements.
- D. All material and labor required for such maintenance shall be supplied by the Contractor, and the work shall be done in a manner satisfactory to the Owner at no additional cost to the Owner.
- E. Failure to meet the warranty requirements constitutes a breach of contract.

1.06 SUBMITTALS

- A. Submit to the Engineer, in accordance with Section 01300, design mix for each bituminous material.
- B. Samples: Provide samples of materials for laboratory testing and job mix design.
- C. The following submittals must be furnished for the work of this Section:
 - 1. Certified Mix Designs.
 - 2. Certified Test results for gravel gradation.
- D. Product Data: Submit data on material and equipment to be used in concrete pavement including:
 - 1. Sources of aggregate, manufacturer data sheets for cement and concrete admixtures used in the concrete mix design.
 - 2. Dowels and dowel bar assemblies.

3. Reinforcement or welded wire mesh.
4. Proposed Techniques: submit proposed techniques for placement, consolidation, finishing texturing and curing of concrete.
5. Concrete Mix Design Data:
 - a. Submit concrete mix design for each concrete strength.
 - b. Identify mix ingredients and proportions, including admixtures.

PART 2 PRODUCTS

2.01 MATERIALS

A. Asphalt Paving;

1. Bituminous concrete pavement and bituminous materials shall conform to Section 4.06 of the Connecticut Department of Transportation Form 819 and the Details in Appendix B. Mix type shall match existing pavement unless otherwise directed by the Town.
2. Asphalt-Tack coat type, grade, and application methods shall conform to the Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction, latest issue.
3. Backfill shall be in accordance with CTDOT Minimum Standard Specifications for Roads, Bridges, and Incidental Construction, latest issue.
4. Initial pavement shall be in accordance with the Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction, latest issue.
5. Temporary pavement marking paint shall be epoxy and thermoplastic markings. Paint shall be white or yellow to match existing conditions and temporary pavement markings shall comply with MUTCD and Town requirements, or as directed by the Engineer.
6. Final street pavement restoration on Town roads shall match existing materials. See Appendix B for paving requirements.
7. Final sidewalk or driveway restoration shall use Class 9.5 hot mix asphalt or as shown in Appendix B.
8. Unless otherwise directed by the Town, final pavement restoration shall consist of two lifts: 1.5-inch binder and 1.5-inch surface course, consistent with the Town of Putnam Road Opening Regulations.

B. Concrete Paving

1. Concrete sidewalk pavement shall meet the requirements in CTDOT Standard Specifications for Roads, Bridges, and Incidental Construction, Section 9.21.
2. Concrete driveways and road base shall meet the requirements in Section 9.22 of CTDOT Standard Specifications for Roads, Bridges, Facilities, and Incidental Construction.

- C. Permanent pavement marking paint shall be epoxy resin reflectorized traffic paint. Paint shall be white or yellow to match existing conditions or as directed by the Engineer.
- D. Concrete sidewalks shall conform to Connecticut Department of Transportation Standard Specifications for Roads, Bridges, Facilities, and Incidental Construction.
- E. Concrete curbs shall conform to Connecticut Department of Transportation Standard Specifications for Roads, Bridges, Facilities, and Incidental Construction.

PART 3 EXECUTION

3.01 GENERAL

A. Openings:

1. It shall be unlawful for any person or persons, firm, corporation, or municipality to make any excavation in or to open or damage the surface of any road or street under the jurisdiction of the CTDOT or Town of Putnam without written approval from the authority having jurisdiction.
2. No Town of Putnam Highway Department controlled roads can be opened after November 15th or before April 15th. The only exceptions shall be for emergencies declared by the Town of Putnam Highway Department.
3. The Contractor shall abide by the hours of construction specified in Section 01014.
4. Notify residents and business 72-hours prior to beginning roadwork.
5. Steel plates are to be used over excavations to permit full traffic flow during non-working hours. No barricades, equipment, materials, or other obstructions to traffic shall be left in the roadway when work is not actually in progress.
6. Provisions shall be made to protect all existing underground utilities during construction. Work shall be conducted to eliminate interference with subsurface utilities and their appurtenances unless permission for interference has been obtained from the proper authorities.
7. All roadways shall be cleanly saw cut before excavation is made.
8. After an opening is made, the work shall be continuous, and restoration of disturbed surfaces shall be completed as soon as conditions permit.
9. Restoration shall not alter existing drainage patterns or cause runoff to enter the roadway.
10. The excavated area shall be backfilled and the temporary pavement shall be completed on the same day trench is made. Open trenches shall not be permitted overnight.
11. If the edge of any excavation ends with two feet or less to the curb or edge of the pavement, remove and replace all pavement between the edge of the trench and curb or edge of pavement at no additional cost other than at the unit price bid for pavement replacement.

12. All excavations shall be completely backfilled. Trenches may not be flushed or puddled except by specific permission of the Town.
13. All backfill of trench work or excavated areas within Town Road Right of Way shall be done in the presence of the assigned Inspector. If Inspector is not present and the excavated area has been backfilled, re-excavate the opening and backfill with the inspector present at Contractor's sole expense.
14. All stages of trench restoration shall be subject to inspection by the Town of Putnam DPW.
15. All openings shall be properly guarded, day and night, with approved signs, barricades, lights, etc. Flagmen shall be provided in the amount as directed by the involved jurisdiction's Police Department. If necessary, a uniformed police officer for traffic control will be determined by the involved jurisdiction's Police Department. Transverse openings shall be restricted so that not more than one half of a traveled way will be obstructed at any time, one line in each direction must be maintained at all times. Recessed and pinned steel plates are to be used as protection on openings maintained overnight in the traveled ways.
16. All pavement replacement, curbing, and sidewalk replacement shall be performed in strict accordance with the requirements of the Town.
17. Materials for pavement shall be mixed, delivered, placed, and compacted in accordance with the CTDOT standards and as specified herein.
18. When the air temperature falls below 50 degrees F, extra precautions shall be taken in drying the aggregates, controlling the temperatures of the materials, and placing and compacting the mixtures.
19. No mixtures shall be placed when the air temperature is below 40 degrees F, nor when the material on which the mixtures are to be placed contains frost or has a surface temperature not suitable to the Engineer. Before the Contractor leaves each site, all areas shall be restored to original conditions. If the existing traffic lines are removed or damaged during the day's construction, the Contractor is to restripe these lines as necessary and return them to their original condition. Following final completion, restore all traffic lines with long life epoxy resin.

B. Permits:

1. The Contractor shall be solely responsible for obtaining and maintaining all road opening and street closure permits with the Town as needed. Notify police jurisdiction of work.
2. The Contractor shall apply for road opening permits from the Town Department of Public Works Engineering Division and the Connecticut Department of Transportation (CTDOT) depending on the agency with jurisdiction for the roadway. All road opening permits must be submitted a minimum of 2-weeks prior to the start of work.
3. Road opening permits are valid for 30-days from the date of issuance.
4. Contractor shall be responsible for taking out and maintaining the minimum required Insurances, Bonds, statements, and providing any and all information requested by the Department of Public Works to obtain permits.

5. Schedule all inspections 72-hours prior to the commencement of work. If the anticipated date and duration of work change, notify the Town Department of Public Works Traffic Engineering Division the prior business day. Failure to notify the Department of Public Works may result in the nullification of the permit. Contractor shall be responsible for providing any and all information requested by the Town Department of Public Works.

C. Protection of Traffic:

1. Employ Police Officers as required by the Road Opening Permit to maintain and control the flow of traffic and for the protection of motorists and pedestrians. Place and maintain such barricades, detour signs, flashing lights, etc. as are deemed necessary by the by the involved jurisdiction's Police Department. Traffic control shall be coordinated with Police and Town.
2. Special attention shall be given for the protection of pedestrians, school children, and motorists.
3. Ingress and egress shall be maintained to the abutting properties at all times.
4. Daily notification of the area of operations shall be made to the Engineer, Police, Fire Department, Town Engineer, Department of Public Works, or Town Road Supervisor.
5. No vehicular traffic or loads shall be permitted on the newly completed pavement until adequate stability has been attained and the material has cooled sufficiently to prevent distortion or loss of fines. If the climatic or other conditions warrant it, the period of time before opening to traffic may be extended at the discretion of the Engineer.
6. All agencies must be notified in the event of a detour or road closure, these include but are not limited to Police, Fire, and other emergency departments.

3.02 ROLLING AND COMPACTION

- A. Compaction shall be started immediately after spreading. Rollers shall be types approved by the Engineer. Rolling shall be a continuous process, and all parts of the pavement shall receive uniform compaction.
- B. Sidewalk compaction and curbing shall be inspected by the assigned Inspector. Curbing shall be raised level to the top of sidewalk.
- C. All pavement thicknesses referred to herein are compacted thicknesses. The Contractor shall place sufficient mix to ensure that the specified thickness of pavement occurs wherever called for.
- D. After the paving mixture has been properly spread, initial compaction shall be obtained by the use of power rollers weighing not less than 240 pounds per inch width of tread.
- E. Final compaction of the surface shall be accomplished by rollers weighing not less than 285 pounds per inch width of tread. Along curbs, structures and all places not accessible with a roller, the mixture shall be thoroughly compacted with tampers. Such tampers shall not weigh less than 25 pounds and shall have a tamping face of not more than 50 square inches. The surface of the mixture after compaction shall be smooth and true to the established line and grade.

3.03 TEMPORARY PAVEMENT

- A. Initial Pavement shall be placed immediately after trenches have been backfilled and compacted unless otherwise approved by the Town. Initial Pavement shall be placed wherever existing pavement has been removed or disturbed as soon as practical, but in no case, more than 24 hours after backfilling is completed. Exceptions are noted elsewhere in the Specification.
- B. During the interval between the completion of backfill and the time of placement of initial paving, all areas shall be maintained in a safe and satisfactory condition to allow for normal traffic use.
- C. The Initial Pavement shall be placed in two equal layers. Tack coat shall be applied between all layers and along the edges of the existing pavement. Prior to placing any initial, temporary pavement, ensure the edges of the cut pavement are vertical and square. The Engineer will inspect the conditions prior to pavement placement, and the Contractor will correct any deficiencies prior to paving operations. This Initial Pavement shall be maintained in a safe and usable condition and brought to pre-construction grade at no additional cost until top mix pavement is placed.
- D. The base pavement shall be placed and compacted by a roller to thoroughly compact the bituminous concrete without damaging the existing pavement. The width of the roller must be less than the width of the trench. The new pavement shall be rolled smooth and flush with the existing pavement.
- E. Hose clean all road surfaces adjacent to the trench area to be paved. No paving is to be placed until subsurface is dry.
- F. Initial pavement shall be maintained in a condition suitable for traffic until replaced or overlaid by top mix. Defects shall be repaired within 3 days of notification of such defects.
- G. If the Contractor fails to maintain the trench and pavements in a safe and satisfactory condition and fails to remedy these conditions, the Owner may repair these areas at his own expenses with the cost of such repairs being deducted from payments due to the Contractor.
- H. The work area shall be cleaned with a sweeper with a water attachment for dust control immediately after each excavation is backfilled and temporarily paved. A mechanical sweeper is required to be available on-site and used at all times while construction is taking place.

3.04 FINAL PAVEMENT

- A. Final pavement shall be completed on roads as directed in permit conditions.
- B. Final paving shall be completed by the Contractual Completion date and coordinated with Owner and Engineer, but no earlier than 45 days after the last replacement on a street to allow sufficient time for settlement.
- C. Final pavement restoration shall conform to the Town of Putnam Standard Details (Sheets CD-1 through CD-3). Where existing pavement structure differs from the standard detail, match existing thickness unless otherwise directed by the Town.
- D. No grade changes shall be made at the edge of existing pavement unless required to match existing cross slope.

3.05 CONCRETE ROADS

- A. Where concrete road repair is required, concrete shall be placed to match existing concrete thickness. Steel plates shall be used to protect the concrete during curing time.
- B. Prior to placing concrete, the Contractor shall cut back the existing concrete for a minimum of twelve inches beyond the limits of the pipe trench. Existing concrete shall be of suitable quality to abut repair.
- C. Drill holes into the face of the existing concrete pavement not more than 1/4 inch in diameter greater than the dowels. Maintain vertical and horizontal alignment during drilling and do not damage existing concrete surrounding the hole. Before installing dowels and joint ties, clean the holes of cement dust, standing water, and materials that interfere with the proper bonding of the epoxy grout.
- D. Place concrete in two layers with the first layer placed to such a depth that the surface of the layer is at the proper elevation to receive the reinforcement steel. Place the reinforcement steel followed by the next layer of concrete. Remove and replace the lower layer concrete if it has developed initial set or has been in place more than 30 minutes before being covered with the next layer. Texture the surface using a stiff broom.
- E. Steel plates shall be set flush with surrounding pavement and pinned with a minimum of one spike at each corner of the individual steel plate.
- F. All manhole/catch basin covers, grates, valve covers, and other items at the roadway surfaces shall be appropriately raised or lowered to bring them flush with the new pavement.
- G. Repair any defects in curbing caused by the Contractor's operations.

3.04 STAMPED ASPHALT

- A. Repair stamped asphalt to match the pattern, color and texture of the surrounding stamped asphalt during the placement of the final surface course.

3.06 CONCRETE SIDEWALKS

- A. The subgrade shall be constructed to the required elevation to match the existing. All soft and unsuitable materials shall be removed and replaced with approved materials. The subgrade shall be compacted until a smooth, hard and dense surface is obtained. The subgrade shall be moistened prior to the placing of concrete.
- B. Forms shall be of wood or metal and shall be of the full depth of the concrete.
- C. Concrete shall be placed in the forms by methods which will prevent segregation, spread to the full depth and brought to grade by screening and straight edging and shall be floated with a wooden float to produce a surface free from irregularities.
- D. Joints shall be constructed in intervals of 12 ft, except for closures, but a slab shall not be less than 6 ft in length. Slabs shall be separated by transverse premolded expansion joint filler for the full width of the slab, extending from the bottom of the slab to within 1/4-in of its top surface. The slab between expansion joints shall be divided into blocks approximately 5 ft in

length by scoring transversely. Transverse scoring shall extend to at least 1/3 of the depth of the concrete slab.

- E. Protect adjacent slabs that do not need to be disturbed as part of the work with plywood. Concrete sidewalk panels disturbed by construction activities shall be replaced in their entirety to the nearest joint. Any slabs determined to be scratched or chipped due to the Contractor not properly protecting adjacent slabs will be replaced by the Contractor at their expense.
- F. New slabs shall be separated from existing adjacent slabs by a transverse premolded expansion joint filler for the full width of the slab, extending from the bottom of the slab to within 1/4-in of its top surface.
- G. Where sidewalks are constructed adjacent to permanent structures or other rigid construction on one side and curb on the other, an expansion joint of premolded material extending along both structure and the curb shall be placed for the full depth of the slab. A premolded expansion joint shall be placed between the sidewalk and adjacent curb at all crosswalks. All joint filler shall be fastened to prevent displacement. The walk shall be sloped so that water will drain away from the structure.
- H. After the sidewalk has been placed and finished it shall be cured as specified in Section 03301.
- I. Sidewalks shall be restored completely between 30 and 45 days after a replacement. Hot patch is to be used for temporary sidewalk restorations performed during winter months with final restoration to be completed in the spring when winter months is over.

3.07 CURBS

- A. Concrete curbs shall be constructed of the same dimensions as the existing curbs. Curbs shall be poured in forms and finished with a steel trowel, float or broom so as to duplicate the finish of the existing curb.

3.08 DRIVEWAY APRONS

- A. Driveway aprons shall be 6-inches thick and include 6" x 6" steel welded fabric placed in the center of the slab. The apron shall slope uniformly from sidewalk to gutter, without depressions or humps. The surface shall be broomed to create a rough but uniform surface. If existing apron is left in place, then the new apron shall be finished to match.

3.09 STRIPING

- A. Surface Preparation: All dirt, oil, grease and other foreign material shall be removed from the areas upon which the traffic paint or stripes are to be placed. Large areas of tar, grease or foreign materials may require sand blasting, steam cleaning or power brooming to accomplish complete removal. Application of stripes shall not proceed until final authorization is received from the Engineer.
- B. The paint shall be applied in accordance with the Connecticut Department of Transportation Standard Specifications for Roads, Bridges, Facilities, and Incidental Construction. Traffic shall not be permitted until the paint is thoroughly dry.
- C. All disturbed pavement markings shall be replaced to the satisfaction of the Engineer.

- D. No thinners shall be used for the above listed pavement marking applications except in accordance with the manufacturer's specifications and at the direction of the Engineer.
- E. No paint or pavement marking material shall be heated above the temperature marked on the container.
- F. Bituminous concrete pavements shall have been in place for 48 hours prior to the application of pavement markings.
- G. If for any reason material is spilled or tracked on the pavement, or any markings applied, in the Engineer's judgement, fail to conform because of a deviation from the desired pattern, remove such material by a method that is not injurious to the roadway surface and is acceptable to the Engineer, clean the roadway surface and prepare the surface for a reapplication of markings and reapply the markings as directed without additional compensation for any of the foregoing corrective operations.
- H. Parking area pavement of each handicapped parking space shall be painted with an international symbol of accessibility as shown on the Drawings, and as approved by the Engineer. Provide an R7-8 sign in accordance with the Manual of Uniform Traffic Control Devices at each space. Sign shall be fastened to a single aluminum post and bottom of sign shall be mounted 5'-0" above finished grade. Post shall have a 12-in diameter by 4'-0" deep concrete base. Concrete shall conform to Section 03301.
- I. Access aisles shall be painted with parallel pavement markings as shown on the Drawings. Markings inside the perimeter border shall be equally spaced twice the distance of the line width.

END OF SECTION

SECTION 02663 WATER SERVICE CONNECTIONS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Typical Water Service Connection Details are included in Appendix B of this Project Manual. Replace existing lead service lines using trenchless technology in accordance with these details.
- B. Obtain approval from the Engineer to install the entire new service line, or portions of the new service line, utilizing a method other than a trenchless method. If a service line or portion of the new service line, is installed via open-cut trench due to site conditions, failure of trenchless methods or other approved reasons, payment shall be under Bid Item 1A, the same as if the service line was installed via trenchless methods including all restoration requirements as specified.
- C. Furnish all labor, materials, equipment, tools, and incidentals required to verify existing service line material, replace water service connections to the limits directed by the Engineer. Furnish all necessary labor and equipment to replace existing lead service line piping and install new rolled copper tubing, saddles on water mains as required, corporation stops, curb stops, curb boxes, adapters and fittings of the necessary size required, and restore the street, sidewalk, landscaped areas and any other areas disturbed by construction to their original condition unless otherwise stated.
- D. Contractor shall make no replacement on the public side of the service line if the public side (corporation to curb stop) is copper or plastic. Contractor shall replace the private side of the service line if it is found to be lead, and provided that the Homeowner has signed the Right-of-Entry (ROE) and Release Form for Galvanized Service Line Replacement.
- E. Unless otherwise directed, the new curb stops shall be located 1.5-feet behind the curb line. Contractor shall be responsible for the removal of existing curb stops and/or installation of curb stops in the locations directed by the Engineer.
- F. Unless otherwise directed, any service line with a diameter less than 1.0 inches in diameter shall be replaced with a 1.0-inch service line. Any existing service line with a diameter greater than 1.0 inches shall be replaced with a new service line of the same diameter as the existing pipe.
- G. A list of addresses for lead service lines to be replaced as part of this project are listed in Appendix A of this Project Manual. Owner may add or remove properties to this list. Contractor may add properties only under circumstances specified in Section 01170.
- H. Any lead service piping removed shall be handled and disposed of in accordance with all local, state and federal laws and regulations.

- I. Replacement work within private property shall be coordinated with the Owner, Engineer, Property Owner and Residents prior to starting any work.
- J. For service replacements into the building, Contractor shall either bring the new rolled copper tubing, by expanding the existing pipe penetration, into the building or create a new penetration for the new water service line, as approved by the Engineer. The water service line shall extend into the building and be reconnected to the existing water meter. Water meter orientation shall be horizontal. If any water meter is found to be oriented vertically, Contractor shall notify Owner immediately. If a meter is found to be broken or is missing, the Contractor shall notify the Owner immediately, in accordance with Section 15410, to obtain a new meter.. The Contractor shall repair and provide a watertight seal of the pipe penetration through the building in accordance with Section 01180, as approved by Engineer.
- K. Existing water service lines constructed of pipe materials that contain lead or of a pipe material not designed for use in a potable water system shall be considered lead, replaced as such, and paid for under the appropriate associated Bid Item. These materials include but are not limited to brass, galvanized and black iron.
- L. If portions of the interior plumbing on the downstream side of the water meter are found to be lead, Contractor is to immediately contact the Engineer.
- M. Maintain an on-site supply of anticipated specialty fittings, including but not limited to tapping saddles, repair clamps, repair sleeves, repair saddles, corporation stops, curb stops, curb boxes, fittings to connect to meters of a different size than the pipe, etc., such that the work proceeds without impacting the execution of the work and causing a delay in connecting the service.
- N. Adjust alignment of the new service to avoid damaging existing trees and tree roots. Engineer may require an alternate alignment which will be anywhere along the frontage of the property.
- O. Any changes to meter alignment or interior plumbing alignment must be first approved by the Owner.
- P. If at any point the Contractor encounters a leaking service line at an adjacent property to a scheduled service line replacement or on a portion of the service line that is not lead, Contractor shall notify Owner immediately to determine the appropriate course of action.
- Q. Dewatering shall be in accordance with Section 02140. Dewatering cost shall be included in applicable service line replacement Bid Items. If, during the course of work, an existing corporation stop becomes dislodged from the water main for any reason, Contractor shall immediately contact Owner to coordinate shut down of main and repair. Owner's inspector shall be present. The contractor shall be responsible for dewatering the excavation to perform a new water service connection in the dry, all work and dewatering shall be included in the applicable replacement Bid Item.

1.03 RELATED WORK

- A. Special Provisions are included in Section 01170.
- B. Pipe Penetration is included in Section 01180.
- C. Photographic Documentation is included in Section 01322.

- D. Project Record Documents are included in Section 01720.
- E. Trenching, Backfilling, and Compaction are included in Section 02221.
- F. Granular Fill Material is included in Section 02230.
- G. Interior Service Piping is included in Section 15410

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300, and within 10 days after signing the contract a list of materials to be furnished, the name of suppliers and the date of delivery of materials on the job site. Submit means and methods for repairing and sealing pipe penetrations through all types of building foundations during shop drawing submittals. All proposed means and methods for repairing and sealing pipe penetrations through building foundations shall be reviewed by the Engineer.
- B. This project is funded in part by the Connecticut Department of Public Health via the Drinking Water State Revolving Fund (DWSRF). As part of that program, all iron, steel, manufactured products, and construction materials and equipment shall meet the American Iron and Steel (AIS) and Build America, Buy America (BABA) requirements as mandated by the EPA's State Revolving Fund. These requirements also apply to any listed products herein. At the time of the submittal, the product must meet the AIS and BABA requirements, and the Contractor is to provide certificates of compliance with the shop drawings for items in this section.

1.05 REFERENCE STANDARDS

- A. National Sanitation Foundation (NSF):
 - 1. NSF 61 - Drinking Water System Components Health Effects.

1.06 DELIVERY, STORAGE AND HANDLING

- A. All materials shall be inspected for size, quality, and quantity against approved shop drawings upon delivery.
- B. Delivery schedule of all equipment shall be coordinated with the Contractor. Equipment ready for shipment prior to the agreed upon shipping date shall be stored without cost to the Owner by the manufacturer.
- C. All materials shall be suitably packed for shipment and long-term storage. Each package shall be labeled to indicate the project and the contents of each package. Where applicable, equipment numbers shall be marked on the container.
- D. All equipment shipped that is exposed, such as on a flatbed truck, shall be protected during transit. The equipment shall be protected from moisture, road salt, dirt, stones or other materials thrown up from other vehicles. Electrical components shall be protected as above, but with special attention to moisture. The method of shipment protection shall be defined in the submittals.

- E. All materials shall be stored in a covered dry location off of the ground. When required to protect the materials they shall be stored in a temperature-controlled location.

1.07 QUALITY ASSURANCE

- A. All products and materials provided for potable water service application shall be certified “lead-free,” by an ANSI certified, third-party independent organization. The term “lead-free” shall refer to the wetted surface of the pipe, fittings, and fixtures in potable water systems that have a weighted average lead content less than or equal to 0.25 percent per the Safe Drinking Water Act (Sec. 1417) amended in 2020 and other equivalent state regulations.
- B. All products of a given type included in this Section shall be furnished by or through a single manufacturer.
- C. Inspection by the Engineer's representative or failure to inspect shall not relieve the Contractor of responsibility to provide materials and perform the work in accordance with the Contract Documents.
- D. The piping manufacturer shall furnish an affidavit of compliance certifying that all materials used and work performed complies with the specified requirements. Provide copies of the mill test confirming the type of material used in the various components.
- E. All the types of valves and appurtenances shall be the product of well-established firms who are fully experienced, reputable and qualified in the manufacture of the equipment to be furnished. The equipment shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with this Section as applicable.
- F. The Owner and Engineer reserve the right to sample and test any materials after delivery and to reject all components represented by a sample that fails to comply with the specified requirements.

1.08 WARRANTY:

- A. Warrant the work against defects for one (1) year from the date of Substantial Completion.

PART 2 PRODUCTS

2.01 COPPER SERVICE PIPE

- A. Service pipe shall be soft, annealed seamless rolled copper tubing conforming to ASTM B88 and NSF/ANSI 61 requirements, Type “K” with a maximum working pressure of 200 psi. The name and trademark of the manufacturer shall be stamped along the pipe. Copper tubing shall have a diameter following the requirements of Section 02663 Paragraph 1.01.G. Type “L” copper tubing may be used for interior piping only in accordance with Section 15410.
- B. Tubing for water services over 100 ft. long shall be polyethylene CTS water service tubing (PE 3408) with a 200-psi pressure rating in accordance with AWWA Standard Specification C-901.

2.02 FITTINGS

- A. Line fittings, as required on the new service line and if approved by Engineer, shall be standard three-part unions conforming to AWWA C800. For full-service line replacements from the water main into the building, fittings shall be used only at the corporation and curb stop.
- B. Type CF-1, cast bronze, threaded adaptors, 150 lbs., screwed, ASTM B62, ANSI/ASME B16.15.
- C. Type CF-2, brass tube solder type, ASTM B62, ASME B16.18.
- D. Type CF-3, wrought copper, solder type, ASTM B75, ASME B16.22.
- E. Type CF-6, 125 lbs., flared or compression type copper unions, ASME B16.26.
- F. Type CF-7, soldered cast brass or wrought copper drainage pattern, ASME B16.29.
- G. Brass Fittings shall be Mueller H15403N, Mueller H15428N, Mueller H15526N, H15530N, or approved equal.
- H. The couplings shall be the "lead-free" brass compression style couplings for use with service piping (tubing), or the polypropylene compression couplings as specified herein. The conventional brass couplings shall be utilized for service connections when the house (building) foundation is less than ten (10) feet from the curb stop location. The polypropylene couplings shall be utilized for service connections when the foundation is greater than ten (10) feet from the curb stop location.

2.03 JOINING OF PIPE

- A. Pipe shall only be joined if approved by the Engineer.
- B. Compression
 - 1. Rolled copper tubing shall be joined by bronze bodied compression fittings with a synthetic rubber gasket that holds stainless steel gripper band, such as Mueller 110 Compression Connections or equal.

2.04 VALVES AND APPURTENANCES

- A. Valves and appurtenances shall meet current State of Connecticut standards.
- B. All valves for service lines shall open right - clockwise. Valves of the same type shall be identical and from one manufacturer.
- C. Valves shall have the name of the maker, nominal size, flow directional arrows, working pressure for which they are designed and standard to which they are manufactured cast in raised letters on some appropriate part of the body.
- D. Unless otherwise noted, valves shall have a minimum working pressure of 200 psi and suitable for the pressures noted where they are installed.

- E. Valves shall be of the same nominal diameter as the pipe or fittings they are connected to. Except as otherwise noted, joints shall be compression joints for copper tubing.
- F. Valves shall be specially constructed for buried service.

2.05 CURB STOP ASSEMBLIES

- A. Curb stops shall be Mueller Mark II Oriseal Curb Valve Catalog#B-25209N for ¾-inch, Mueller Mark II Oriseal Curb Valve Catalog #H10283N for 1-inch, or approved equal, and an inlet with Conductive Compression connection for CTS O.D. Tubing, and an outlet with Female Iron Pipe (F.I.P.) thread, have a quarter turn check and shall not have a drain.
- B. Curb stops shall be Mueller Mark, II Oriseal, 110 Compression Connection, catalog # H15172N, or approved equal, 1-1/2 -inch or 2-inch size, and shall have an inlet with a Mueller 110 Compression Connection for CTS O.D. tubing, and outlet with Female Iron Pipe (F.I.P.) thread, have a quarter turn check and shall not have a drain or Mueller Mark II Oriseal Curb Valve Catalog #H10283, 1-1/2 -inch or 2-inch size and inlet/outlet with Female Iron Pipe (F.I.P.) thread, have a quarter turn check and shall not have a drain.
- C. Curb stops shall be manufactured in accordance with ASTM B62 and AWWA Standard C800 and shall be "Lead-Free" as defined for lead-free brass alloys in accordance with the ANSI/NSF- 60 and ANSI/NSF-61 standards for components in contact with potable water. These products shall have the letters "NL" or "LF" cast into the main body of curb stop for proper identification.
- D. Curb stops shall be ball valve type with combined cap and tee and shall be provided with a positive stop at fully open and fully closed.
- E. The inlet and outlet ends of the curb stops shall be provided with compression couplings for Type "K" copper service pipe for their respective sizes.
- F. The curb stops to be furnished under these specifications shall "OPEN TO THE RIGHT - CLOCKWISE."
- G. Curb stops shall be of the non-bleeder type.

2.06 CURB BOXES

- A. Curb boxes shall be installed for all new curb stops. Curb boxes shall be compatible with approved curb stop.
- B. Curb boxes shall be Bingham & Taylor I2B94FW (94-S), CULWRD, CUL2TFN, or approved equal. Lid shall be inscribed with "WATER". Box extension shall be 50.5-inches to 84-inches fully extended or shall be sized to fit actual service depth.
 - 1. Curb boxes for ¾ and 1" services shall be Buffalo style type boxes with an arch or bell bottom and shall be so constructed as to permit the total length of the box to be adjusted from not less than 4-1/2 feet to 5-1/2 feet.

2. The upper section of the box shall not be less than one inch in diameter and provided with a suitable and removable cover. The covers for all curb boxes shall be screwed to top section, have a bronze pentagon plug, and have the word "Water" cast into them.
3. The boxes shall be constructed so as to prevent the separation of the upper section from the lower section and to prevent the upper section from turning when removing the lid.
4. The boxes shall be coated both inside and outside with the manufacturer's standard paint or enamel.
5. The service box covers are to be furnished with a plug cover.
6. Curb boxes for 1-1/2 inch and 2-inch curb stops shall be constructed of a cast iron two section roadway style box and shall have a 4-1/2 inch cover with the word "Water" cast into them, with an arched bell and foot bottom section. Curb stops shall be placed on a bedding of crushed stone to provide adequate drainage with suitable blocking on each side of the pipe to support the curb box bottom. At no time should the service box bottom rest or contact the service piping. Boxes shall be adjustable for a maximum burial depth of 5.5 feet.
7. One curb box key of appropriate size shall be provided for every 100 services installed of that size.

2.07 REPAIR CLAMPS

- A. Repair saddle for broken or leaking tap shall be Smith-Blair full circle tapped repair clamp model 238 with 304 stainless steel hardware with fluoropolymer coated 304 stainless steel nuts or approved equal repair saddle.

2.08 PITCHER FILTERS AND REPLACEMENT CARTRIDGES

- A. The filters shall be NSF 53 and 42 certified to remove lead under the certification limit at the time of distribution to the customer. The filter shall be:
 1. Pitcher filter with replacement cartridges - both the filter and the replacement cartridges shall be certified to the NSF 53 and NSF 42 standards for removal of lead.
 2. Provide a minimum 7-cup pitcher filter that supports an NSF 53 and 42 certified filter cartridge.
 3. A minimum 6-month supply of filter cartridges must be provided at the time of the replacement. Per the manufacturer's specifications, this may be a single 6-month cartridge that is provided with the pitcher filter or an extra box of three replacement (3) cartridges each with a 2-month lifespan, totaling a minimum of 6-months of supply.
 4. Only full boxes shall be provided to the residents. No unopened or repackaged boxes shall be provided even if this results in a greater than 6-month supply of filters.
 5. Pitchers and filter cartridge shall be by Brita, PUR, ZeroWater, Dupont or equal.

- B. Pitcher filters with replacement cartridges for a minimum 6 month duration shall be provided by the Contractor to each unit in a household following replacements along with installation instructions, filter use and flushing instructions, health effects flyer, and sample offer flyer.
- C. Contractor shall track delivery of pitcher filters in e-Builder, including a photograph confirming the delivery.
- D. Filters shall be stored by the Contractor in a temperature controlled, dry place for a maximum of 6 months in accordance with the manufacturer's recommendations.

PART 3 INSTALLATION

3.01 WATER SERVICE INSTALLATION

- A. Lead service line replacement, testing, and flushing shall be in strict accordance with AWWA C810, latest edition. Water service to the interior plumbing of the building must be shut off before any excavation, or test pits are commenced.
- B. If any portion of the private service line is lead, it shall be replaced as a whole at the same time, unless a partial replacement is approved by the Owner after all required outreach attempts are made by the Contractor and any additional attempts the Owner chooses to perform.
- C. Unless otherwise approved or directed by the Engineer, all work shall be performed with water mains live and in service. If emergency circumstances or special circumstances approved by Engineer necessitate that water main be temporarily shut down, the water main must be returned to service within 8 hours – no water main shall be out of service for emergencies or special circumstances as approved by the Engineer for longer than 8 hours.
- D. The Contractor shall also replace in kind interior plumbing equipment upstream of the meter as part of the overall interior private service replacement work as shown in Detail No. 1 Appendix B. This work shall consist of installation of ball valves before the meter and replacement of plumbing fixtures upstream of the meter, if present. This work shall also include all appurtenant interior copper piping and fittings required for the completed equipment installations. All materials and installations shall be in accordance with Owner specifications and/or the local plumbing code.
- E. All service connections shall be installed as shown in Detail No. 1, Appendix B and shall have a minimum of 4.5 feet of cover unless approved by the Engineer or Owner. Any new service connection that is not installed in the same location as the existing service and is installed in a new location must not be laid in the same trench as other utilities (i.e., gas, electric, sewer).
- F. Care shall be exercised when either pulling or placing and laying copper tubing to be sure that the pipe does not have kinks or sharp bends and to assure against it being in contact with sharp stones or ledge which would cause damage to the pipe. At least 6-inches of sand shall be placed adjacent to and above the service line in open cut locations.
- G. All valves on the service line and downstream of the meter shall be closed and kept closed until otherwise directed by the Engineer.
- H. During installation of all valves and appurtenances, verify that all items are clean, free of defects in material and workmanship and function properly.

- I. Buried valves shall be cleaned and manually operated to verify that all items are clean, free of defects in material and workmanship and function properly before installation. Buried valves and valve boxes shall be set with the stem vertically aligned in the center of the valve box. Valves shall be set on a firm foundation and supported by tamping pipe bedding material under the sides of the valve. The valve box shall be supported during backfilling and maintained in vertical alignment with the top flush with finish grade.
- J. Water service lines shall be installed with a minimum vertical separation distance of 12 inches at all sewer and stormwater utility crossings. Where possible, water service lines shall be installed above sewer utilities in accordance with the applicable State Plumbing Code.
- K. Curb stops will, unless otherwise directed, be installed 1.5-feet from the curb line or pavement limit. Contractor shall be responsible for the removal of existing curb stops and/or installation of curb stops in the locations directed by the Engineer. Install the curb stops and boxes in a workmanlike manner as described herein and as directed by the Engineer.
 - 1. Curb Boxes shall be set center and plum over curb stops.
 - 2. Set curb box flush with finished grade, except when located in the roadway. If curb box is within a roadway the box shall be set ½-inch below finished grade.

3.02 ELECTRICAL GROUNDING

- A. Prior to performing a replacement involving the private-side (curb to meter), the Contractor shall have a quality inspection performed by a competent person properly trained to check if the existing water pipe is being used for grounding and test for current with a multi-meter. If used for grounding, the Contractor shall perform the following:
 - 1. For a private-side only replacement, install a temporary bonding jumper in parallel with the existing service line, firmly attaching approved grounding clamps to either side of the service line to be repaired, replaced, or reconnected. Contractor shall ensure the connectors are contacting bare (clean) service line material for a metal-to-metal contact. Contractor shall remove temporary grounding after completion of all work and perform a re-inspection by a competent person properly trained to check if the grounding system is properly functioning.
- B. All work shall be in accordance with the National Electrical Code for grounding systems.
- C. Contractor shall perform the work utilizing appropriate Personal Protective Equipment (PPE) and maintain the existing level of electrical grounding through the water service line replacement process. Do not cut the existing service line until the temporary bonding jumpers are installed.
- D. Once the new copper water pipe is installed, Contractor to connect the pipe to the grounding system with a jumper across the meter for continuity. Existing conditions prior to the replacement shall be restored.
- E. If improper grounding or electrical work is detected, the Contractor shall notify the homeowner who will need to contact an electrician to correct the electrical work in the building before the replacement can commence. No work shall be performed until the improper grounding or electrical work is corrected. If the electrical issue is identified on the day scheduled for

replacement at that address, the Contractor will be paid under the Bid Item 1C for “No Access Provided” and will return to the house for the replacement once the homeowner notifies the Contractor that the grounding is corrected.

3.03 FLUSHING AND LEAK TESTING

A. Flushing and Leak Testing:

1. When the service line has been installed, prior to backfilling of the access pits or trenches and connecting the customer service, the Contractor shall open the curb stop to perform a preliminary flushing and cleaning of the new service piping prior to final connection to the premise plumbing.
2. After all air is expelled, a visual leakage test is to be conducted on all exposed unions and connections. Test all pipelines for water tightness as specified herein at system pressure. Furnish all labor, testing plugs or caps, pipe connections, gauges and all other equipment required. Testing shall be performed after the line has been constructed and in the presence of the Engineer or the Owner’s representative, and no backfilling of the access pits or trenches will be permitted until the leakage testing is satisfactorily completed.
3. Whereupon the final connection of the new service to the existing private service piping is completed, and the water service is activated, the Contractor will perform a final flushing of the overall service line utilizing the exterior faucet/hose bib of the house or building or by installing a jumper before the water meter or other methods approved by Engineer and shall be performed for a minimum period of 15 minutes, or in accordance with the latest recommendation in AWWA C810, whichever is greater. If an exterior faucet is not available or is inoperable, and a final flush cannot be performed or if a partial lead service line is conducted, the Contractor shall deliver and place a “red” door-hanger notice, as provided by the Owner, at the home (building). This notice will advise the homeowner and/or resident to flush their internal plumbing.
4. When the flush is complete, the final connection shall be made to the water meter and final visual leakage test under “system pressure” will commence for 10 minutes and be observed by Engineer. Repair faulty joints or remove any cracked or defective piping, valves, and fittings and replace as approved by the Engineer. Retest until water service line passes.

- B. The contractor must coordinate with Owner before removing a lead water service from the bypass and shall notify Owner 24 hours prior to the final connection and activation of a new service line connection to an existing lead private side pipe.

C. Flushing Instructions:

1. Post-replacement customer installation instructions, filter use and flushing instructions, health effects flyer, and sample offer flyer shall be left with the Customer. The instructions and flyer will be provided by the Engineer for the Contractor to print and distribute.

END OF SECTION

SECTION 02768
PIPE PULLING (EXTRACTION)

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required to install new service lines and appurtenances using pipe pulling methods as shown on the water service connection detail and as specified herein.
- B. The Contractor shall be capable of providing crews as needed to complete the work without undue delay.
- C. The Contractor shall be prepared to provide temporary water service to any location that is not completed within the allocated time.
- D. Review and comply with the coordination requirements listed in Section 02663.
- E. Review the record-keeping requirements listed in Section 01720.

1.03 RELATED WORK

- A. Trenching, Backfilling, and Compaction are included in Section 02221.
- B. Water Service Connections are included in Section 02663.

1.04 SUBMITTALS

Submit, in accordance with Section 01300, Shop Drawings for the pipe pulling tool and pulling head.

- A. Submit, prior to the start of work, a typical drawing showing the equipment setup and the size and location of all proposed pits and excavations required to complete the work.
- B. The Owner shall approve or disapprove the Contractor and/or manufacturer based on the submitted information.

1.05 GUARANTEE

- A. All work shall be fully guaranteed by the Contractor for one year from the date of Substantial Completion. During this period, all serious defects discovered by the Customer or Owner shall be removed and replaced in a satisfactory manner by the Contractor at no cost to the Customer or Owner.

PART 2 PRODUCTS

2.01 MATERIAL

- A. Provide and install copper water service line pipe in accordance with Section 02663.

2.02 EQUIPMENT

- A. The pipe pulling tool shall be performed per tool manufacturer's specifications for the application pulled through via a cable installed by a constant tension winch located at the receiving excavation. The pulling unit shall pull the pipe with it as it moves. The pulling head shall incorporate a shield/expander to prevent the collapse of the hole ahead of the pipe insertion.

PART 3 EXECUTION

3.01 GENERAL

- A. Conduct a pre-installation inspection of the property at which pipe pulling is proposed in order to become familiarized each specific site condition (i.e., location of access, conflicting utilities, etc.).
- B. Provide temporary piping in order to maintain water to existing property during pipe pulling if the property will be without water for longer than 8-hours.
- C. Curb stop must be excavated before any other excavation takes place to confirm the service line materials on both sides – the public-owned side and the privately-owned side. If neither side is lead, the excavation shall be backfilled and will be paid for as a test pit.
- D. Excavate access pits as needed along the existing water service line. The number and size of access pits shall be the minimum necessary to allow for satisfactory completion of the work.
- E. Access pits shall be of sufficient size to allow access for pulling equipment and installation of new water service line. All excavation shall be fully braced and supported in accordance with Section 02311. Pits shall be centered over the existing water service line. Maximum pit sizes for payment are shown on the details.
- F. Prior to the actual pipe pulling operation and disconnection of existing water service line, prepare all excavation pits and have all equipment and piping on-site in order to complete the pipe busting or pulling operation in a timely fashion.

3.02 INSTALLATION

- A. The pipe pulling shall be conducted as a continuous operation. Pipe pulling shall consist of pulling specialized head or gripper finger which will install the new water service line. The pulling head shall be sized per manufacture recommendations to prevent breakage of new service line. The new water service line shall be installed straight and parallel to the centerline of the existing water service line following the same line and grade.

- B. Pipe pulling method shall limit vibrations transmitted to the surrounding soils and work that causes excessive vibrations will need to be reviewed by owner and engineer. The peak particle velocity (PPV) shall be limited to 0.5-inches per second.
- C. All buried utilities adjacent to the pipe pulling operation shall be reviewed, and, where necessary, be excavated to relieve transient loading during the pipe pulling operation.
- D. If the water service line is concrete encased employ substitute means to install the new water service line.
- E. The area excavated within the property for the pipe pulling operation shall be repaired, and the new water service line pipe entrance through the building wall shall be fully sealed to provide a watertight seal.
- F. As soon as the pipe pulling operation is complete, connect the new water service line in accordance with Section 02663.

3.03 FIELD TESTING AND ACCEPTANCE

- A. Flushing and testing of the new service line shall be done in accordance with 02663.

END OF SECTION

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SECTION 02900 LANDSCAPING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and service required and complete all planting and related landscaping work to provide full restoration of all areas to conditions equal to or better than pre-construction and as specified herein, including but not necessarily limited to the following:
 - 1. Supplying of loam for all plant pits and planting beds. Be responsible for all topsoil preparation, testing, conditioning, and fertilization and shall ensure the overall quality of the material. Loam stockpiled from other construction operations under this Section may be used.
 - 2. Excavation of pits for trees and shrubs.
 - 3. Furnishing and planting trees and shrubs.
 - 4. Supplying accessory materials and wrapping, guying, and staking of all trees.
 - 5. Pruning of plant materials as specified and as approved by the Engineer.
 - 6. Supplying and spreading mulch for tree pits and planting beds as specified herein.
 - 7. Maintenance and guarantee.
 - 8. Final cleanup and all other work required to complete the job in accordance with the Drawings in Appendix B and as specified herein.
- B. The planting work shall be performed by a landscape contractor who is fully experienced in projects of this scope and whose main business is landscaping. Selection of the landscape contractor shall be subject to the approval of the Engineer.

1.03 RELATED WORK

- A. Sedimentation and erosion control is included in Section 02270.
- B. Loaming and Seeding is included in Section 02930.

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300, samples of all materials for inspection and approval.

1.05 REFERENCE STANDARDS

- A. American Association of Nurseryman (AAN).
- B. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

PART 2 PRODUCTS

2.01 LOAM

- A. Loam shall be as specified in Section 02930.
- B. No loam shall be delivered or spread in a frozen or muddy condition.

2.02 FERTILIZER, SOIL AND PLANT CONDITIONERS

- A. Fertilizer shall be commercial mixed free-flowing granules or pelleted fertilizer, 10-20-10 (N-P2O5-K2O) with at least 40 percent of the nitrogen in the fertilizer to be slowly available (organic) form. Fertilizer shall be delivered to the site in original unopened containers each showing the manufacturer's guaranteed analysis conforming to applicable state fertilizer laws.
- B. Peat Moss: Shall be domestic brown sphagnum peat, free of woody materials and of mineral matter such as sulfur and iron and shall have a pH value between 4 and 5. Deliver air dry.
- C. Weed Retarder: Shall be "Garden Weeder" by Am. Chem. Products Inc. or equal, delivered in manufacturer's containers and used according to manufacturer's instructions.
- D. Anti-desiccant: Shall be an emulsion which provides a protective film over plant surfaces to help retain moisture, but permeable enough to permit transpiration. Anti-desiccant shall be delivered in the manufacturer's containers and shall be mixed with water in proportions recommended by the manufacturer. Anti-desiccant shall be "WILT-PRUF" available from Nursery Specialty Products Inc., Greenwich, CT or equal.
- E. Bone Meal: Shall be a commercial raw bone meal, finely ground, having a minimum analysis of 4 percent nitrogen and 20 percent phosphoric acid.
- F. Mulch: Shall be of a color and size required to match existing conditions. If mulch is required where it does not exist it shall be Shredded Pine Bark Mulch consisting of pine bark strips no longer than 2-in in any dimension, free of wood chips, stones, or other undesirable matter with at pH range between 4 and 5.
- G. Soil Sterilant: Shall be "TRIOX" by Ortho Chemical Co. or equal.
- H. Water used in this work shall be furnished by the Contractor and shall be suitable for irrigation and free from ingredients harmful to plant life. Hose and other watering equipment required for the work shall be furnished by the Contractor.

2.03 ACCESSORY MATERIALS

- A. Stakes: Shall be used for supporting all trees and shall be of sound wood, uniform in size, reasonably free of knots and capable of standing in the ground at least 2 years. Stakes shall be treated with a non-toxic preservative stain with a rich dark brown color. Stakes shall be 2 by 4

and not less than 8-ft in length.

- B. Wire: For tree staking, shall be Double No. 10 gauge galvanized soft steel wire, twisted.
- C. Hose: To encase wires, shall be two-ply fiber-bearing black rubber garden hose, not less than 1/2-in inside diameter and a minimum of 8-in in length.
- D. Wrapping Material: Shall be first quality, heavy waterproof crepe paper manufactured for this purpose. Strips shall be 6 to 10-in wide. Twine for tying shall be coarse sisal yarn.

2.04 PLANT MATERIALS

- A. Furnish and install trees and shrubs to fully restore all areas to conditions equal to or better than pre-construction. Plants shall be nursery grown under climatic conditions similar to those in the locality of the project and shall conform to the variety and sizes indicated. Plants shall also conform to the indicated botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the AAN in the American Standard for Nursery Stock.
- B. All plants shall be freshly dug. No heeled-in plants or plants from cold storage shall be used. All plants shall be typical of their species or variety and shall have a normal habit of growth. Plants shall be sound, healthy, and vigorous, well-branched and densely foliated when in leaf; shall be free of disease, insect pests, eggs or larvae and shall have healthy, well-developed root systems. All parts of the plant shall be moist and shall show active green cambium when cut.
- C. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than 8-feet. The trunk of each tree shall be a single trunk growing from a single unmutated crown of roots. No part of the trunk shall be conspicuously crooked as compared with normal trees of the same variety. The trunk shall be free from sun-scald, frost cracks, or wounds resulting from abrasions, fire, or other causes. No pruning wounds shall be present having a diameter of more than 2-in and such wounds must show vigorous bark on all edges.

2.05 INSPECTION OF PLANT MATERIALS

- A. Inspection of plants before digging shall be at the option of the Engineer. Be present as requested by Engineer, for inspection of plants at the nursery.
- B. Plants shall be subjected to inspection and approval upon delivery for conformity to specified requirements as to quality, size, and variety. Such approval shall not impair the right of inspection and rejection during the progress of the work.
- C. Plants shall be accompanied by State Nursery inspection certificates.

PART 3 EXECUTION

3.01 DIGGING, HANDLING AND PROTECTION OF PLANTS

- A. Plants shall be dug with firm natural balls of earth, sufficient diameter, and depth to include most of the fibrous roots and conforming to the standards of AAN. No plants will be accepted with plastic burlap or if the ball is cracked or broken except upon special approval of the Engineer.

- B. Roots or balls of plants shall be adequately protected at all times from sun and from drying winds.
- C. Plants which cannot be planted immediately upon delivery shall be set on the ground and be well-protected with soil, wet moss, bark mulch, or other acceptable material.
- D. No plant shall be bound with wire or rope at any time so as to damage the bark or break branches.

3.02 PLANTING SEASONS

- A. Planting shall only be done during the periods within the seasons which are normal for such work as determined by weather and by locally acceptable practice and which are approved by the Engineer. If planting occurs between June 15th and August 15th or during periods of drought, irrigation shall be furnished as directed by the Engineer.

3.03 PLANTING OPERATIONS

- A. Planting: Shall be done by experienced workmen familiar with planting procedures under the supervision of a qualified foreman.
- B. As requested, the Contractor shall stakeout planting locations and secure the Engineer's approval before excavating plant pits.
- C. All plant pits shall be excavated with vertical sides.
- D. Tree Pits: Shall be 2-feet greater in diameter than the root ball of the tree and sufficiently deep to allow for a 1-foot thick layer of compacted loam and peat moss beneath the ball.
- E. Shrub Beds: Shall be tilled to 18-in below the top of loam.
- F. Plant backfill mixture: Loam for backfilling all tree pits shall have 3 lbs of fertilizer and 1 lb of bone meal per tree and 1 lb of fertilizer and 1/2 lb of bone meal per shrub, incorporated with peat moss at a ratio of 2 parts loam to 1 part peat moss.
- G. Plants shall be set in the center of pits plumb and straight and at such a level that after settlement, the crown of the plant ball will be at the surrounding finished grade.
 - 1. When balled and burlapped plants are set, loam shall be compacted around bases of balls to fill all voids. All burlap, ropes or wires shall be removed from the top 1/3 of the balls. Plastic burlap shall be completely removed.
- H. Loam shall be backfilled in layers of not more than 9-in and each layer watered sufficiently to settle before the next layer is put in place.
- I. Loam around balls shall be thoroughly compacted and watered. Immediately after the plant pit is backfilled, a saucer or shallow basin slightly larger than pit shall be formed with a ridge of soil to facilitate and contain watering.
- J. Spray all plants with anti-desiccant, including trunk, branches, foliage, and buds. Follow manufacturer's instructions and recommendations for application of anti-desiccant.

- K. Relocated plants shall be removed and relocated according to AAN standards and guaranteed for 1 year after installation.

3.04 WRAPPING, GUYING AND STAKING

- A. Trees shall be inspected by the Engineer for injury to trunks, evidence of insect infestation and improper pruning before wrapping.
- B. Wrap trunks of all trees spirally from bottom to top with material specified and tie securely. The wrapping shall overlap and entirely cover the trunk from the ground to the height of the second branches and shall be neat and snug. Overlap shall be approximately 2-in.
- C. All shade trees, flowering trees, and evergreen trees 5 to 6-ft in height and larger shall be staked in accordance with best practices.

3.05 PRUNING AND MULCHING

- A. Each plant shall be pruned at the time of planting in accordance with AAN Standards to preserve the natural character of the plant and as directed by the Engineer.
- B. Pruning shall be done with clean, sharp tools.
- C. Cuts over 1-in in diameter shall be painted with approved tree paint. Paint shall cover all exposed cambium as well as other exposed living tissue. Paint shall be waterproof, adhesive, and elastic, antiseptic, free from kerosene, coal tar, creosote, or any other material injurious to the life of the tree.
- D. Immediately after planting operations are completed, all tree pits shall be covered with a 3-in layer of the specified mulch and shrub and ground cover beds shall be treated with weed retardant in accordance with manufacturer's instructions and covered with a 3-in layer of mulch.

3.06 OBSTRUCTIONS BELOW GROUND

- A. In the event that underground boulders, underground construction work, or obstructions are encountered in any pit excavation work under this Contract, alternate locations may be selected by the Engineer at no additional cost to the Owner.

3.07 WATERING

- A. Plantings must be flooded with water twice within the first 24 hours of the time of planting and not less than twice per week until provisional acceptance.
- B. Suitable water for planting and maintenance will be the responsibility of the Contractor. The Contractor shall furnish his/her own hose and hose connections or other watering equipment.

3.08 MAINTENANCE

- A. Maintenance shall begin immediately after each plant is installed. Plants shall be watered, mulched, weeded, pruned, sprayed, fertilized, cultivated, and otherwise maintained and protected until provisional acceptance. Settled plants shall be reset to proper grade and position, planting saucer restored, and dead material removed. Guys shall be tightened and repaired. Defective work shall be corrected as soon as possible after it becomes apparent and as weather

and season permit.

- B. Upon completion of planting and prior to provisional acceptance, remove from the site excess soil and debris and repair all damage resulting from planting operations.

3.09 INSPECTION AND PROVISIONAL ACCEPTANCE

- A. The Engineer will inspect all work for provisional acceptance, at the end of the 8-week maintenance period, upon the written request of the Contractor received at least 10 days before the anticipated date of inspection.
- B. Furnish full and complete written instructions for maintenance of the planting to the Customer at the time of provisional acceptance.
- C. After all necessary corrective work has been completed and maintenance instructions have been received by the Customer, the Engineer will certify in writing the provisional acceptance of the planting.

3.10 GUARANTEE PERIOD AND REPLACEMENTS

- A. All plants, including relocated material, shall be guaranteed for not less than two full years from the time of substantial completion.
- B. At the end of this period, any plant that is missing, dead, not true to name or size as specified, or not in satisfactory growth, as determined by the Engineer, shall be replaced. In case of any question regarding the condition and satisfactory establishment of a rejected plant, the Engineer's decision is final. Furnish a guarantee for all replacement plants for at least one full growing season.
- C. All replacements shall be plants of the same kind and size. They shall be furnished and planted as specified herein. The cost of replacement shall be borne by the Contractor except where it can be definitely shown that loss resulted from vandalism.

3.11 FINAL INSPECTION AND FINAL ACCEPTANCE

- A. At the end of the guarantee period, an inspection will be made by the Engineer upon written request submitted by the landscape contractor at least 10 days before the anticipated date.

END OF SECTION

SECTION 02930
LOAMING AND SEEDING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and place loam, finish grade, apply lime and fertilizer, apply seed and mulch and maintain all seeded areas to fully restoration of all areas to conditions equal to or better than pre-construction and as specified herein, including all areas disturbed and all existing lawn areas.
- B. As much as feasible, salvage existing sod and grass. Utilize loam and seed to supplement existing sod to restore to existing conditions.

1.03 RELATED WORK

- A. Trenching, Backfilling, and Compaction included in Section 02221.
- B. Landscaping included in Section 02900.

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300, complete shop drawings, materials, and equipment furnished under this Section including seed mixtures and product label information.
- B. Samples of all materials shall be submitted for inspection and acceptance upon Engineer's request.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Loam: In accordance with the requirements of M.13.01 as specified in State of Connecticut, Department of Transportation Standard Specifications for Roads, Bridges, Facilities, and Incidental Construction, Form 819.
- B. Starter fertilizer shall be a complete commercial fertilizer, 10-6-4 grade for grass areas. It shall be delivered to the site in the original unopened containers each showing the manufacturer's guaranteed analysis. Store fertilizer so that when used it shall be dry and free-flowing.
- C. Lime shall be ground limestone consisting of a standard commercial product of ground dolomitic limestone intended for agricultural use.
- D. Grass seed shall be equal in mixture to Improved U.R.I. No. 2.

- E. Unrotten straw, hay free of seeds, or salt hay is required on all seeding and shall be applied at a rate of 1.5 to 2 tons/acre (70 to 90 lbs./1,000 square feet). If a crimper is used instead of a liquid mulch-binder, the rate of application shall be 3 tons per acre.
- F. Mulch anchoring shall be a specially processed cellulose fiber containing no growth or germination-inhibiting factors. It shall be manufactured in such a manner that after addition and agitation in slurry tanks with water, the fibers in the material become uniformly suspended to form a homogeneous slurry. When sprayed on the ground, the material shall allow absorption and percolation of moisture. Each package of the cellulose fiber shall be marked by the manufacturer to show the air-dry weight content.
- G. Other approved mulch anchors include synthetic or organic binders, Peg and twine, mulch netting, and mechanical crimping.

PART 3 EXECUTION

3.01 STRIPPING AND STOCKPILING

- A. 6-inch stripping depth is typical but may vary depending on the soil structure.
- B. Stockpiles shall be located not to obstruct natural drainage, constructed according to the stockpile detail.

3.02 APPLICATION

- A. All areas having lawn or landscaping shall have loam placed to a minimum depth of 5-in (Unsettled).
- B. For all areas to be seeded:
 - 1. Unless otherwise shown on the Details, lime shall be applied at the rate of 0.5 lbs per square yard.
 - 2. Fertilizer shall be applied at the rate of 0.20 lb per square yard.
 - 3. Lawn grass seed shall be applied at the rate of 0.05 lbs per square yard. If the seed is applied by Hydroseeding, then the seed rate shall be increased by 25 percent.
 - 4. Small grain straw mulch shall be applied at the rate of 70 to 90 lbs/1,000 sq ft.
 - 5. Fiber mulch shall be applied by hydroseeding at the rate of 35 lbs/1,000 sq ft.
- C. The application of fertilizer and lime and hydroseeding must be performed separately. Hydroseeding shall be performed as a two-step process applying seed first and covering with mulch second; mulch shall not be mixed with the seed. Seed and mulch must be cleaned from all structures and paved areas of unwanted deposits.

3.03 INSTALLATION

- A. The subgrade of all areas to be loamed and seeded shall be raked, and all rubbish, sticks, roots, and stones larger than 2-in shall be removed. Subgrade surfaces shall be raked or otherwise

loosened immediately prior to being covered with loam. Subgrade shall be inspected and approved by the Engineer before loam is placed.

- B. Loam shall be placed over approved areas to a depth sufficiently greater than required so that after natural settlement and light rolling, the complete work will conform to the lines, grades and elevations indicated. No loam shall be spread in water or while frozen or muddy.
- C. After loam has been spread, it shall be carefully prepared by scarifying or harrowing and hand raking. All large stiff clods, lumps, brush, roots, stumps, litter, and other foreign material, shall be removed from the loamed area and disposed of. The areas shall also be free of smaller stones, in excessive quantities, as determined by the Engineer. The whole surface shall then be rolled with a hand roller weighing not more than 100 lbs/ft of width. During the rolling, all depressions caused by settlement of rolling shall be filled with additional loam, and the surface shall be regraded and rolled until a smooth and even finished grade is created.
- D. Seeding, mulching, and conditioning shall only be performed during those periods within the seasons which are normal for such work as determined by the weather and locally accepted practice, as approved by the Engineer.
- E. Schedules for seeding and fertilizing shall be submitted to the Engineer for approval prior to the work. Landscape work shall only be performed during acceptable growing seasons, as defined for USDA hardiness zone 6b. The customer shall be responsible for the watering of the newly seeded areas to promote satisfactory initial grass growth within the restored grassed areas.
- F. Lime and fertilizer are to be spread mechanically, then:
 - 1. After the loam is placed and before it is raked to true lines and rolled, limestone shall be spread evenly over loam surface and thoroughly incorporated with loam by heavy raking to at least 4-inches of loam.
 - 2. Fertilizer shall be uniformly spread and immediately mixed with the upper 4-inches of topsoil.
- G. Seeding shall be done within 10 days following soil preparation. Seed shall be applied rates and percentages indicated.
- H. In order to prevent unnecessary erosion of newly graded slopes and unnecessary siltation of drainage ways, carry out seeding and mulching as soon as satisfactory completion of a unit or portion of the project. A unit of the work will be defined as not more than 5,000 sq ft.
- I. When protection of newly graded areas is necessary at a time that is outside of the normal seeding season, protect those areas by whatever means necessary (such as straw applied with a tar tack) or by other measures as approved by the Engineer.

3.04 SEEDING IN WOODED AND UNGRADED AREAS

- A. For preparation and seeding in wooded areas under this Contract and where no grading is required, all of the specified materials and procedures shall be utilized except that no disking shall be performed within the drip line of trees to be preserved. The seedbed shall be prepared by the addition of a thin layer of topsoil roughly 1-in deep.

3.05 MAINTENANCE AND PROVISIONAL ACCEPTANCE

- A. Keep all seeded areas watered and in good condition, reseeding if and when necessary until a good, healthy, uniform growth is established over the entire area seeded.
- B. On slopes, provide against washouts by an approved method. Any washout that occurs shall be regraded and reseeded at the Contractor's expense until a good sod is established.
- C. The Engineer will inspect all work for provisional acceptance at the end of the 8-week grass maintenance period, upon the written request, received at least 10 days before the anticipated date of inspection.
- D. A satisfactory stand will be defined as a section of grass of 5 sq ft or larger that has:
 - 1. No bare spots larger than 1 sq ft.
 - 2. No more than 10 percent of total area with bare spots larger than a 4-inch square.
- E. Furnish full and complete written instructions for maintenance of the lawns to the Customer at the time of provisional acceptance.
- F. The inspection by the Engineer will determine whether maintenance shall continue in any area of manner.
- G. After all necessary corrective work and clean-up has been completed and maintenance instructions have been received by the Customer, the Engineer will certify in writing the provisional acceptance of the lawn areas. Maintenance of lawns or parts of lawns shall cease on receipt of provisional acceptance.

3.06 GUARANTEE PERIOD AND FINAL ACCEPTANCE

- A. All seeded areas shall be guaranteed for not less than 1 full year from the time of provisional acceptance.
- B. At the end of the guarantee period, an inspection will be made by the Engineer upon written request submitted at least 10 days before the anticipated date. Lawn areas not demonstrating satisfactory stands as outlined above, as determined by the Engineer, shall be renovated, reseeded and maintained meeting all requirements as specified herein.
- C. After all necessary corrective work has been completed, the Engineer shall certify in writing the final acceptance of the lawns.

END OF SECTION

SECTION 03301
CONCRETE AND REINFORCING STEEL

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required and install all concrete work complete as shown on the Drawings and as specified herein.

1.03 SUBMITTALS

- A. Submit to the Engineer, in accordance with Section 01300, Shop Drawings and Product Data. Submittals shall include at least the following:

1. Concrete mix for each formulation of concrete proposed for use including constituent quantities per cubic yard, water-cementitious ratio, type and manufacturer of cement.
2. Bar schedules and bar bending details in conformity with the recommendations of ACI 315.
3. Technical data on all materials and components.
4. Material Safety Data Sheets (MSDS) for all concrete admixtures and curing agents.

- B. Certifications:

1. Certify concrete proposed will have a minimum 28-day compressive strength as specified.

1.04 QUALITY ASSURANCE

- A. If during the progress of the work, it is impossible to secure concrete of the required workability and strength with the materials being furnished, the Engineer may order such changes in proportions or materials, or both, as may be necessary to secure the desired properties. All changes so ordered shall be made at the Contractor's expense.
- B. Reinforced concrete shall comply with ACI 318.
- C. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products, and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
- D. All testing and inspection services required, unless otherwise specified, shall be provided and paid for by the Contractor. Testing necessary to establish the concrete mixes shall be performed by and at the expense of the Contractor. Methods of testing shall comply with the latest applicable ASTM standards.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Reinforcing steel shall be shipped and stored with bars of the same size and shape fastened bundles with durable tags, marked in a legible manner with waterproof markings showing the same designations as shown on the submitted bar schedules and shop drawings.
- B. Reinforcing steel and Welded Steel Wire Fabric shall be free from mill scale, loose rust, dirt, grease, or other foreign matter. Store off the ground and protect from moisture, dirt, oil, or other injurious contaminants.
- C. Products shall be stored in conformity with the manufacturer's recommendations.
- D. Sand, aggregates, and cement shall be stored or stockpiled in conformity with the recommendations of ACI 301.

1.06 FIELD CONDITIONS

- A. Cold-Weather Concrete Placement: Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing, or low temperatures. Comply with ACI 306.1 and the following:
 - 1. When air temperature has fallen to or is expected to fall below 40 deg F (4.4 deg C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F (10 deg C) and not more than 80 deg F (27 deg C) at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in design mixtures.
- B. Hot-Weather Concrete Placement: Comply with ACI 301 (ACI 301M) and as follows when hot-weather conditions exist:
 - 1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F (32 deg C) at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated in total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Cement shall be domestic Portland cement conforming to ASTM C150, Type II.
- B. Fine aggregate shall be washed inert natural sand conforming to the requirements of ASTM C33.
- C. Coarse aggregate shall be well-graded crushed stone or washed gravel conforming to the requirements of ASTM C33, size 57 unless otherwise directed.
- D. Water shall be potable, clean, and free from injurious amounts of oils, acids, alkalis, organic matter, or other deleterious substances.

- E. Concrete admixtures shall be free of chlorides and alkalis (except for those attributable to water). When it is required to use more than one admixture in a concrete mix, the admixtures shall be from the same manufacturer. Admixtures shall be compatible with the concrete mix including other admixtures and shall be suitable for use in contact with potable water after 30 days of concrete curing. No admixtures shall be used unless approved by the Engineer in writing.
 - 1. Air-entraining admixture shall comply with ASTM C260. Proportioning and mixing shall be in accordance with manufacturer's recommendations.
 - 2. Water reducing admixture shall comply with ASTM C494, Type A. Proportioning and mixing shall be in accordance with manufacturer's recommendations.
 - 3. Admixtures causing retarded or accelerated setting of concrete shall not be used without written approval from the Engineer. When allowed, the admixtures shall be retarding or accelerating water-reducing admixtures.
- F. Reinforcing steel bars shall be deformed, intermediate grade, steel bars conforming to ASTM A615 Grade 60. Rail-steel bars will not be permitted in the work.
- G. Welded Steel Wire Fabric: Conforming to ASTM A1064.
- H. Tie wires for reinforcing steel shall be 16 gauge or heavier, black annealed wire.
- I. Precast concrete block bar supports shall conform to CRSI - Manual of Standard Practice (MSP) for Precast Concrete Bar Supports.

2.02 CONCRETE QUALITY

- A. Class A concrete shall be designed in accordance with the Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction.

2.03 MIXING CONCRETE

- A. Ready-mix concrete shall conform to ASTM C94 and the requirements herein, or as otherwise approved by the Engineer. If ready-mix concrete is to be used, the manufacturer shall furnish a statement to the Engineer for his approval giving the dry portions to be used, with evidence that these will produce concrete of the quality specified.
- B. Select proportions of ingredients to meet the design strength and materials limits specified and to produce concrete having proper placability, durability, strength, appearance, and other required properties. Proportion ingredients to produce a homogenous mixture which will readily work into corners and angles of forms and around reinforcement without permitting materials to segregate or allowing excessive free water to collect on the surface.

2.04 MEASURING, BATCHING, MIXING AND TRANSPORTING CONCRETE

- A. Measuring, batching, mixing and transporting concrete shall conform to ASTM C94 and the requirements herein, or as otherwise approved in writing by the Engineer.
- B. Ready-mixed concrete, whether produced by a concrete supplier or the Contractor shall conform to the requirements above. No hand mixing will be permitted.

- C. Admixtures shall be dispensed into the batch in conformity with the recommendations of the manufacturer of the admixtures.
- D. Concrete shall be mixed until there is uniform distribution of the materials and shall be discharged completely before the mixer is recharged. The mixer shall be rotated at a speed recommended by the mixer manufacturer and mixing shall be continued for at least 1-1/2 minutes after all the materials are in the mixer. Concrete shall be placed within 1-1/2 hours of the time at which water was first added, otherwise it shall be rejected. Concrete which has been remixed or retempered, or to which an excess amount of water has been added, shall also be rejected.

2.05 FORMS

- A. Forms shall be free from roughness and imperfections, substantially watertight and adequately braced and tied to prevent motion when concrete is placed. No wooden spreaders will be allowed in the concrete.
- B. Wire ties will not be allowed. Metal ties or anchorages which are necessary within the forms shall be so constructed that the metal work can be removed for a depth of at least 1-in from the surface of the concrete without injury to such surface by spalling or otherwise. Forms shall be thoroughly cleaned before using and shall be treated with oil, or other approved material.

PART 3 EXECUTION

3.01 REINFORCING STEEL

- A. Fabricate reinforcing steel accurately to the dimensions shown. Bend bars around a revolving collar having a diameter of not less than that recommended in ACI 318. All bars shall be bent cold.
- B. Provide tension lap splices in compliance with ACI 318. Stagger splices in adjacent bars where possible. Provide Class B tension lap splices at all locations unless otherwise indicated.
- C. Lap splices in welded wire fabric in accordance with the requirements of ACI 318 but not less than 12-in. Tie the spliced fabrics together with wire ties spaced not more than 24-in on center and lace with wire of the same diameter as the welded wire fabric. Offset splices in adjacent widths to prevent continuous splices.
- D. Before being placed in position, reinforcement shall be thoroughly cleaned of loose mill and rust scale, dirt and other coatings, including ice, that reduce or destroy bond. Where there is a delay in depositing concrete after the reinforcement is in place bars shall be reinspected and cleaned when necessary.
- E. Reinforcement which is to be exposed for a considerable length of time after being placed shall be given a heavy coat of cement grout.
- F. In no case shall any reinforcing steel be covered with concrete until the amount and position of the reinforcements have been checked and permission given to proceed by the Engineer.

3.02 INSPECTION AND COORDINATION

- A. The batching, mixing, transporting, placing and curing of concrete shall be subject to the inspection of the Engineer at all times. The Contractor shall advise the Engineer of his/her

readiness to proceed at least 24 hours prior to each concrete placement. The Engineer will inspect the preparations for concreting including the preparation of previously placed concrete, the reinforcing steel, and the alignment, cleanliness and tightness of formwork. No placement shall be made without the inspection and acceptance of the Engineer.

3.03 CONCRETE APPEARANCE

- A. Concrete mix showing either poor cohesion or poor coating of the coarse aggregate with paste shall be remixed. If this does not correct the condition, the concrete shall be rejected.
- B. Concrete for the work shall provide a homogeneous structure which, when hardened, will have the required strength, durability and appearance. Mixtures and workmanship shall be such that concrete surfaces, when exposed, will require no finishing. When concrete surfaces are stripped, the concrete when viewed in good lighting from 10-ft away shall be pleasing in appearance and at 20 feet shall show no visible defects.

3.04 PLACING AND COMPACTING

- A. Reinforcement, where required, shall be accurately placed in exact positions shown, shall be secured against displacement with annealed iron wire ties or suitable clips at intersections and shall have a clear space of 2 inches between the steel and face of forms unless otherwise indicated. Wire ties passing through the forms for the purpose of holding the steel in proper position will not be allowed. Concrete blocks with wire ties cast therein may be used where approved by the Engineer for the purpose of maintaining the clearance between reinforcement and forms. Reinforcing bars shall be free from rust, scale, dirt, grease, and injurious contaminants.
- B. No concrete shall be placed until forms, the condition of subgrade and method of placement have been approved by the Engineer. Before depositing concrete, all debris, foreign matter, dirt, and water shall be removed from the forms. The contact surface between concrete previously placed and new concrete shall be cleaned and brushed with cement paste.
- C. Concrete shall not be placed in water or submerged within 24 hours after placing, nor shall running water be permitted to flow over the surface of fresh concrete within 4 days after its placing.
- D. Deposit concrete as near its final position as possible to avoid segregation due to rehandling or flowing. Pumping of concrete will be permitted when an approved design mix and aggregate sizes, suitable for pumping, are used. Do not deposit concrete which has partially hardened or has been contaminated by foreign materials. If the section cannot be placed continuously, place construction joints as specified or as approved. Do not drop concrete more than 4 feet.
- E. High-frequency mechanical vibrators shall be used to the extent necessary to obtain proper consolidation of the concrete, but not to move or transport concrete in the forms. Care shall be taken to avoid segregation of aggregates by excess vibration. Vibration shall continue until the frequency returns to normal, trapped air ceases to rise and the surface appears liquefied, flattened and glistening. Concrete adjacent to forms and around pipe stubs shall be carefully spaded or rodded.
- F. No concrete shall be mixed or placed during freezing weather without explicit permission. When placing concrete when the air temperature is below 40 degrees F, the water, sand, and gravel shall be heated so that the temperature of the concrete will be at least 50 degrees F. This temperature shall be maintained for 72 hours after placing. No concrete shall be placed on the frozen ground.

- G. Preformed expansion joint filler shall be placed adjacent to structures as directed.
- H. Concrete walkways shall be placed in such quantity that, after being thoroughly consolidated in place, it shall be 4 inches in depth. Finishing operations shall be delayed until all bleed water and water sheen has left the surface and concrete has started to stiffen. After water sheen has disappeared, edging operations shall be completed. After edging and jointing operations, the surface shall be floated with an aluminum or magnesium float. Immediately following floating, the surface shall be steel troweled. If necessary, tooled joints and edges shall be rerun before and after troweling to maintain uniformity. Finish shall match as near as possible the original finish.
- I. The curb face shall be equal to the face of the adjacent undisturbed curb, and the type (i.e., stand up curb or gutter curb) shall be replaced in kind to a condition equal to or better than that which existed previously. Curb that is broken or cracked during construction operations shall be removed and disposed and replaced of by the Contractor at his own expense.

3.05 CURING AND PROTECTION

- A. Protect all concrete work against injury from the elements and defacements of any nature during construction operations.
- B. All concrete shall be cured in conformity with ACI 301. Concrete that is to be used for the containment of water shall be water cured. Water curing shall be by ponding, by continuous sprinkling or by covering with continuously saturated burlap.
- C. Other concrete shall be cured by either water curing, sheet material curing or liquid membrane curing compound except that liquid membrane curing compound shall not be used on any concrete surface where additional concrete is to be placed or where the concrete surface is to be coated or painted.
- D. Finished surfaces and slabs shall be protected from the direct rays of the sun to prevent checking and crazing.
- E. Concrete placed during cold weather shall be batched, delivered, placed, cured and protected in compliance with the recommendations of ACI 306R. Salt, manure or other chemicals shall not be used for cold weather protection.
- F. Concrete placed during hot weather shall be batched, delivered, placed, cured and protected in compliance with the recommendations of ACI 305R. The temperature of the concrete shall be such that it will cause no difficulties from loss of slump, flash set or cold joints. Immediately cover the plastic concrete with sheet material during hot weather.

3.06 CONCRETE ENCASEMENTS AND THRUST BLOCKS

- A. Concrete encasements shall be placed as directed by the Engineer. Backfill shall not be placed on the concrete until permitted by the Engineer.
- B. The backs of thrust block anchors shall be placed against undisturbed earth. The sides of thrust blocks shall be formed. Minimum bearing area shall be as designated by the Engineer. Felt roofing paper shall be placed to protect pipe joints. Concrete shall not be placed over bolts or nuts, or to prevent the removal of joints.

3.07 FIELD TESTS

- A. With the start of any new concrete mix, sets of three field control cylinder specimens will be taken by the Contractor during the progress of the work as directed by Engineer, in compliance with ASTM C31. The number of sets of concrete test cylinders taken of each class of concrete shall be determined by the Engineer. One cylinder shall be broken at 7 days and two cylinders shall be broken and their strengths averaged at 28 days. When the average 28 day compressive strength of the cylinders in any set falls below the specified compressive strength or below proportional minimum 7 day strengths (where proper relation between 7 and 28 day strengths have been established by tests); the Engineer may reject the concrete represented by the set of cylinders, may require modification of the concrete and/or require modification of the proportions, water content, or temperature conditions of the design mix to achieve the required strengths.
- B. Cooperate in the making of tests by allowing free access to the work for the selection of samples, providing an insulated closed curing box for specimens, affording protection to the specimens against injury or loss through his/her operations and furnishing material and labor required for the purpose of taking concrete cylinder samples. All shipping of specimens will be paid for by the Contractor.
- C. Slump tests will be made in the field by the Contractor in conformity with ASTM C143.
- D. Tests for air content shall be made in compliance with either the pressure method complying with ASTM C231 or by the volumetric method complying with ASTM C173.

3.08 STRIPPING AND FINISHING CONCRETE

- A. Forms shall not be stripped before the concrete has attained a strength of at least 30 percent of the specified design strength unless otherwise approved by the Engineer. This is equivalent to approximately "100 day-degrees" of moist curing.
- B. Care shall be exercised to prevent damaging edges or to obliterate the lines of chamfers, rustications or corners when removing the forms or doing any other work adjacent thereto.
- C. Clean all exposed concrete surfaces and adjoining work stained by leakage of concrete, to the satisfaction of the Engineer.
- D. As soon as forms have been stripped, form ties, if employed, shall be removed, and the recess filled to ensure complete water tightness. Any defects in the surface of the walls shall be chipped out and repaired in a workmanlike manner. Defective concrete where it occurs shall be cut to a minimum depth of 1 inch, thoroughly roughened and neat cement brushed in. The hole shall then be filled with mortar in the proportion of 1 part cement and 2-1/2 parts sand with a minimum of water. Mortar for filling form tie recesses shall be mixed to a slightly damp consistency (just short of "balling"), pressed into the recess until dense, and troweled smooth. Mortar in larger patches shall be applied and allowed to assume a partial set following which it shall be struck off flush with the adjoining surface.
- E. Patches shall be kept moist for several days to assure proper curing.
- F. Concrete to receive damp proofing and concrete not exposed in the finished work shall have off-form finish with fins, and other projections removed and tie cones and defects filled as specified.

- G. Sidewalks broken or cracked as a result of the construction operations shall be removed and disposed of by the Contractor and replaced in their entirety to the nearest joint at the Contractor's own cost.

END OF SECTION

SECTION 15050
INTERIOR PIPING - GENERAL REQUIREMENTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. This Section specifies the basic administrative and testing requirements for interior piping. Specific piping materials, systems, and installation procedures are specified in Section 15410.
- B. The existing plumbing systems, including piping and equipment, shall remain in operation until the new water service line is in service. All systems shall be maintained without interruption. The demolition and removal work shall be coordinated with the Owner, Customer and construction schedule for the new water service line.
- C. The temporary shutdown of the individual water system for service transfer shall be limited to 8-hours.
- D. Field verify all piping and plumbing systems to be removed and perform the removal work as required to provide complete and safe transfer of service.
- E. All plumbing demolishing work shall be performed following State plumbing codes and Owner requirements by a Plumber licensed in the State of Connecticut.

1.03 RELATED WORK

- A. Interior Service Piping and Appurtenances are included in Section 15410.
- B. Water Service Connections are included in Section 02663.

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300, general submittals for piping and piping systems as listed below. It is not intended that all submittals listed below be provided for all piping materials and systems. Refer to individual System or Piping Sections for specific submittals.
- B. This project is funded in part by the Connecticut Department of Public Health via the Drinking Water State Revolving Fund (DWSRF). As part of that program, all iron, steel, manufactured products, and construction materials and equipment shall meet the American Iron and Steel (AIS) and Build America, Buy America (BABA) requirements as mandated by the EPA's State Revolving Fund. These requirements also apply to any listed products herein. At the time of the submittal, the product must meet the AIS and BABA requirements, and the Contractor is to provide certificates of compliance with the shop drawings for items in this section.
- C. Shop Drawings and Product Data
 - 1. Pipe hangers and supports technical data

2. Catalog cuts of joints, couplings, harnesses, expansion joints, gaskets, fasteners, and other accessories.

- D. Manufacturers Installation (or application) instructions.

1.05 WARRANTY:

- A. Warrant the Work against defects for one (1) year from the date of Substantial Completion.

1.06 QUALITY ASSURANCE

- A. All materials shall be new and unused.
- B. Install piping to meet the requirements of all local codes.
- C. Provide manufacturer's certification that materials meet or exceed minimum requirements as specified. Reference to standards such as ASTM and ANSI shall apply to those versions in effect at the time of bid opening.
- D. Unless otherwise specified, pressures referred to in all Piping Sections are expressed in pounds per square inch gauge above atmospheric pressure, psig and all temperatures are expressed in degrees Fahrenheit (F).

1.07 DELIVERY, STORAGE AND HANDLING

- A. During loading, transportation and unloading take care to prevent damage to pipes and coating. Carefully load and unload each pipe under control at all times. Place skids or blocks under each pipe in the shop and securely wedge pipe during transportation to ensure no injury to pipe and lining.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Specific piping materials and appurtenances are specified in the respective Piping or System Sections.
- B. General installation materials shall be as specified below.
 1. Unions shall be brass or bronze unions for joining nonferrous pipe.

PART 3 EXECUTION

3.01 GENERAL

- A. All dirt, scale, weld splatter, water, and other foreign matter shall be removed from the inside and outside of all pipe and sub-assemblies prior to installing.
- B. All pipe joints and connections to equipment shall be made in such a manner as to produce a minimum of strain at the joint.

- C. Install piping in a neat manner with lines straight and parallel or at right angles to walls or column lines and with risers plumb. Run piping so as to avoid passing through ductwork or directly under electric light outlets and/or interference with other lines. All work shall be accomplished using recognized methods and procedures of pipe fabrication and in accordance with the latest revision of applicable ANSI Standards, ASME Codes and Pipe Fabrication Institute Standards.
 - 1. Use the full length of pipe except where cut lengths are necessary. Do not spring or deform piping to make up joints.
 - 2. Pipe shall be cut square, not upset, undersized or out of round. Ends shall be carefully reamed and cleaned before being installed.
 - a. Pipe bending shall only be done with mechanical bending equipment only. The minimum radius of a bend for 1-inch copper type K tubing is 4 inches, minimum radius of a bend for 1-1/4 -inch copper type K tubing is 9 inches. Pipe of different materials or sizes shall follow trade/authoritative reference for all bends.
 - 3. Do not use bushings except where specifically approved by the Engineer. Reducers shall be eccentric to provide for drainage from all liquid-bearing lines and facilitate air removal from water lines.
 - 4. Verify the locations and elevations of any existing piping and manholes before proceeding with work on any system. No claim for extra payment will be considered if the above provision has not been complied with.
 - 5. Where lines of lower service rating tie into services or equipment of higher service rating the isolation valve between the two shall conform to the higher rating.
 - 6. Mitering of pipe to form elbow is not permitted.
 - 7. All piping interiors shall be thoroughly cleaned after installation and kept clean by approved temporary closures on all openings until the system is put in service. Closures should be suitable to withstand the hydrostatic test.
 - 8. End caps on pre-cleaned pipe shall not be removed until immediately before assembly. All open ends shall be capped immediately after completion of installation.

3.02 UNIONS

- A. Use unions to allow the dismantling of pipes, valves, and equipment.
 - 1. Unions shall be provided where indicated and in the following locations even if not indicated.
 - a. In long runs of piping to permit convenient disassembly for alterations or repairs.

3.03 LEAK TESTING

- A. Refer to Sections 02663 and 15410 for testing and flushing processes.

END OF SECTION

SECTION 15410
INTERIOR SERVICE PIPING AND APPURTENANCES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. This Section specifies the basic interior service line piping, including the methods of installation for copper pipe and tubing, valves and associated appurtenances as shown in project details or as needed in the field.
- B. Furnish all labor, materials, equipment, services, and incidentals required and install complete and connect interior service piping to existing building plumbing system as shown in project details and as specified herein. If not present install an electrical jumper across meter per National Electrical Code and install grounding as specified in Section 02663.
- C. The installation of the new water service line for each property has not been individually detailed. The water service line connection details in Appendix B were developed to illustrate to the Contractor the required plumbing elements and the required order of the plumbing elements to be used. The piping and equipment shown on the water service line connection details are not to scale and do not show every offset or fitting, nor every hanger or support, or structural difficulty that may be encountered. To carry out the intent and purpose of the water service line connection, Contractor shall field verify all piping and plumbing systems to ensure all necessary plumbing parts are installed to provide a complete and safe transfer of the domestic water service without extra charge to the Owner or Customer. The Contractor shall be responsible for coordinating the system installation and routing with the work of all trades.

1.03 RELATED WORK

- A. Pipe Penetrations is included in Section 01180.
- B. Water Service Connections is included in Section 02663.
- C. Piping – General Requirements are included in Section 15050.

1.04 SUBMITTALS

- A. Submit, in accordance with Section 01300, and within 10 days after issuance of a Notice to Proceed a list of materials to be furnished, the name of suppliers and the date of delivery of materials on the job site.
- B. Submittals shall include a representative catalog cut for each different type of item indicating the materials of construction, important dimensions, and range of pipe sizes for which that item is suitable and structural fasteners to be used.

- C. Submittals shall include jumper wire material, attachment device UL listing and schematic and installation procedures.
- D. This project is funded in part by the Connecticut Department of Public Health via the Drinking Water State Revolving Fund (DWSRF). As part of that program, all iron, steel, manufactured products, and construction materials and equipment shall meet the American Iron and Steel (AIS) and Buy America, Buy America (BABA) requirements as mandated by the EPA's State Revolving Fund. These requirements also apply to any listed products herein. At the time of the submittal, the product must meet the AIS and BABA requirements, and the Contractor is to provide certificates of compliance with the shop drawings for items in this section.

1.05 SERVICE AND UTILITY CONNECTIONS

- A. Water Service:
 - 1. The source of water for potable use in the building shall be brought into the building and connected to the water meter.

1.06 QUALITY ASSURANCE

- A. All products and materials provided for potable water service application shall be certified "lead-free," by an ANSI certified, third-party independent organization. The term "lead-free" shall refer to the wetted surface of the pipe, fittings, and fixtures in potable water systems that have a weighted average lead content less than or equal to 0.25 percent per the Safe Drinking Water Act (Sec. 1417) amended in 2020 and other equivalent state regulations.
- B. All products of a given type included in this Section shall be furnished by or through a single manufacturer or as specified on the schedules.
- C. Inspection by the Engineer's representative or failure to inspect shall not relieve the Contractor of responsibility to provide materials and perform the work in accordance with the documents.
- D. The piping manufacturer shall furnish an affidavit of compliance certifying that all materials used and work performed comply with the specified requirements. Provide copies of the mill test confirming the type of material used in the various components.
- E. All the types of valves and appurtenances shall be the product of well-established firms who are fully experienced, reputable and qualified in the manufacture of the equipment to be furnished. The equipment shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with this Section as applicable.
- F. The Owner and Engineer reserve the right to sample and test any materials after delivery and to reject all components represented by a sample that fails to comply with the specified requirements.
- G. All interior plumbing work shall be performed following State plumbing codes and Owner requirements by a Plumber licensed in the State of Connecticut. A plumber shall be on site each day replacements that involve the private side (curb to meter) are occurring.

1.07 DELIVERY, STORAGE AND HANDLING

- A. All materials shall be inspected for size, quality, and quantity against approved shop drawings upon delivery.
- B. Delivery schedule of all equipment shall be coordinated with the Contractor. Equipment ready for shipment prior to the agreed upon shipping date shall be stored without cost to the Owner by the manufacturer.
- C. All materials shall be suitably packed for shipment and long-term storage. Each package shall be labeled to indicate the project and the contents of each package. Where applicable, equipment numbers shall be marked on the container.
- D. All equipment shipped that is exposed such as on a flatbed truck shall be protected during transit. The equipment shall be protected from moisture, road salt, dirt, stones or other materials thrown up from other vehicles. Electrical components shall be protected as above, but with special attention to moisture. The method of shipment protection shall be defined in the submittals.
- E. All materials shall be stored in a covered dry location off the ground. When required to protect the materials they shall be stored in a temperature-controlled location.

1.08 COORDINATION

- A. Project details indicate the extent and general arrangement of the systems. If any departures from the details or specifications are deemed necessary, details of such departures and the reasons, therefore, shall be submitted as soon as practical for review. No such departures shall be made without the prior written concurrence of the Engineer.
- B. Assume full responsibility for coordination of the individual property plumbing systems, including scheduling and verification that all structures, piping and the mounting of equipment are compatible.

1.09 WARRANTY:

- A. Warrant the work against defects for one year from the date of Substantial Completion.

PART 2 PRODUCTS

2.01 SERVICE PIPING

- A. Interior Copper Service piping shall be Type "L" or Type "K" copper meeting ASTM B-88 and NSF/ANSI 61 requirements with a maximum working pressure of 200 psi.
- B. If and when required, the Contractor shall also install additional interior plumbing equipment as part of the overall interior private service replacement work. This work will consist of the moving existing pressure reducing valves from before the water meter to after the water meter. The pressure reducing valve is to be replaced in kind if a certified plumber determines the need for replacement with approval of the Owner or Engineer. This work will also include all appurtenant interior copper piping and fittings required for the completed equipment

installations. All materials and installations shall be in accordance with Owner specifications and the State of Connecticut and local plumbing codes.

2.02 JOINING OF PIPE

A. Soldering:

1. Type S-1, Solder Alloy TC (95 percent Tin, 4.85 percent Copper 0.15 percent Selenium), ASTM B32, lead-free, certified to comply with ANSI/NSF 61. No solder containing lead shall be utilized on the project.

2.03 VALVES

A. Ball Valves:

1. Ball valves of the same size as the service line shall be furnished and installed by Contractor within building interior upstream and downstream of the meter. All valves and appurtenances shall have the name of the maker, flow directional arrows and the working pressure for which they are designed cast in raised letters upon some appropriate part of the body.
2. Adapter couplings for connecting new copper tubing to existing non-lead service connections (for public side only or private side only service replacements as part of this work as approved by Engineer) shall be standard straight coupling fittings conforming to AWWA C800. When connecting new water service to existing water service, the Contractor may encounter different pipe materials such as steel, brass, etc. Couplings used to connect new to existing services shall electrically isolate the two materials and be comprised of corrosion resistant material. Contractor shall use caution to ensure that the electric ground of existing buildings is not disrupted or altered.
3. The body and cap shall be of brass, ASTM B30, the ball and stem of Type 316 stainless steel, and the seats of the seals of TFE. The valves shall have full floating ball and shall be non-lubricated. Valve seats shall be easily accessible and replaceable. Valves shall be rated to 200 psi. Ball valves shall be quarter turn and complete with an integral bleeder valve on the side.
4. Lead-free water valves 2 inches and smaller shall be full port ball type equal to Watts LFIT6300 or equal.
5. Ferrous surfaces not to be painted shall be given a shop coat of grease or other suitable rust-resistant coating.

2.04 PIPE HANGERS, SUPPORTS AND RESTRAINTS

- A. All pipe and tubing shall be supported as required to prevent significant stresses in the pipe or tubing material, valves, fittings, and other pipe appurtenances, and to support and secure the pipe in the intended position and alignment. All supports shall be designed to adequately secure the pipe against excessive dislocation due to thermal expansion and contraction, internal flow forces, and all probable external forces such as equipment, pipe and personnel contact.

- B. The absence of pipe supports in the details shall not relieve the Contractor of the responsibility for providing them.
- C. Pipe supports shall not induce point loadings but shall distribute pipe loads evenly along the pipe circumference.
- D. Supports shall be provided at changes in direction or as specified herein. No piping shall be supported from other piping or stairs unless specifically directed or authorized by the Engineer.
- E. Materials of Construction for copper piping:
 - 1. Supports for copper pipe shall be copper plated or shall have a 1/16-in plastic coating.
 - 2. Support spacing for copper piping and tubing 2 inches and smaller diameter shall not exceed 5-ft and greater than 2-in diameter shall not exceed 8 feet.
 - 3. Where pipe supports come in contact with copper piping, provide protection from galvanic corrosion by wrapping pipe with 1/16-in thick neoprene sheet material and galvanized protection shield; isolators similar to Elcen, or copper-plated or PVC-coated hangers and supports.
- F. Anchoring Devices: select size, and space support anchoring devices, including anchor bolts, inserts, and other devices used to anchor support, to withstand shear, and pullout loads imposed by loading and spacing on each particular support. Expansion anchors shall be equal to Kwik Bolt as manufactured by Hilti USA, Tulsa, Oklahoma; or Wej-it by Wej-it Expansion Products, Inc., Broomfield, CO. The length of expansion bolts shall be sufficient to place the wedge portion of the bolt a minimum of 1-in behind the steel reinforcement.

2.05 WATER METER

- A. Immediately notify the Owner of any home that does not have a water meter installed.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install all piping, valves, hangers and appurtenances as specified herein and in the referenced Sections above.
- B. Do not install any equipment or materials until the Owner and Engineer have approved all submittals. If any equipment or materials are installed prior to approval of the submittals, it shall be at the Contractor's risk.
- C. If the Contractor is unable to perform work for any reason, the Contractor shall call the Engineer regarding replacing the interior piping system and provide temporary water to the water meter before departing the site.
- D. Carefully cut and remove drywall as needed to access the meter and service line with approval from the Homeowner. Restoration of drywall is to be paid for under Bid Item 1A as applicable.
- E. Reductions in size shall be made using reducing fittings.

- F. Install all brackets, extension rods, guides, the various types of operators and appurtenances as shown in the details that are in masonry floors or walls and install concrete inserts for hangers and supports as soon as forms are erected and before concrete is poured. Before setting these items, check all plans and figures which have a direct bearing on the proper location of these valves and appurtenances during the construction of the structures.
- G. All materials shall be carefully inspected for defects in workmanship and materials; all debris and foreign material cleaned out of valve openings, etc; all operating mechanisms operated to check their proper functioning and all nuts and bolts checked for tightness. Valves and other equipment which do not operate easily, or are otherwise defective, shall be repaired or replaced at no additional cost to the Owner.
- H. After installation, remove debris and excess material from the construction area. If miscellaneous objects had been relocated to obtain access to the meter, after Customer approval, those items shall be placed back in their original location prior to construction.
- I. Valves:
 - 1. Install valves in locations grouped and located to be easily operated through access panels, doors, or adjacent to equipment.
 - 2. Install valves in a horizontal to upright position. Valves shall not be installed in down position from the horizontal.
 - 3. In making solvent cement connections, the solvent cement or primer shall not be spilled on valves. Any cement allowed to run from joints shall be cleaned from the pipe and fittings immediately.
- J. Soldering:
 - 1. Piping shall be cut with square ends and reamed to prevent burrs, out-of-round or improperly sized ends.
 - 2. After cutting, all surfaces to be soldered shall be thoroughly cleaned to a metal-bright finish, free from dirt, grease or other material before fluxing and soldering. This cleaning shall be performed by using emery cloth, sandpaper or steel wool. Clean the outside end of the tubing for a length of 1/2-inch greater than the depth of the fitting. The inside of the fittings shall be cleaned in a similar manner. Apply flux and assemble the joint.
 - 3. The surfaces to be joined shall be heated up slowly and uniformly to the melting point of the solder. The surface being soldered shall be maintained above the melting point of the solder for sufficient time to draw the solder completely into the joint. When the solder congeals to a plastic state, the excess metal shall be removed with a cloth brush, leaving a fillet around the end of the fitting. Full penetration of the solder uniformly throughout the entire socket is required. The soldered joints shall be allowed to cool in still air until only warm to the hand after which the work may be quenched.
 - 4. Any type of crack, pinhole, area of incomplete penetration, or similar defect shall not be accepted. Peening for closing up defects shall not be permitted.

5. Heating torches of sufficient size shall be used for heating of large fittings prior to soldering. Multiple tips or ring burners for use on combination torches may be used.
6. Remove all external and internal loose solder and flux after joint cools.

K. Hangers and Supports:

1. Existing hangers and supports shall be re-used for the interior service line piping.
2. Install support systems in accordance with MSS SP69 and MSS SP89. Install pipe anchors where required to withstand expansion thrust loads and to direct and control thermal expansion.
3. Repair mounting surfaces to original condition after attachments are made.

L. Meters:

1. If the water meter is broken or missing, Contractor shall notify Owner to replace meter.

3.02 LEAK TESTING AND FLUSHING

- A. All pipe support systems shall be tested after installation in conjunction with piping flushing and leak testing. If any part of the pipe support system proves to be defective or inadequate, it shall be repaired to the satisfaction of the Engineer.
- B. Refer to Section 02663 for leak testing and flushing processes.
- C. Flushing shall be in strict conformance with the methods described in AWWA C810 and shall be done inside the home at the meter bypass.
- D. Instructions for the resident for continued flushing after the Contractor's flushing immediately following the installation shall be provided to each resident in the home where the line is replaced.

3.03 RESTORATION

- A. Clean up any construction debris and dust from the replacement. Remove all equipment and materials. Replace any removed drywall with new drywall and tape as required or directed by the Engineer or Owner. Replace any removed flooring with new flooring as required or directed by the Engineer or Owner.

END OF SECTION

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Appendix A Contract Addresses and Maps

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Town of Putnam Water Pollution Control Authority
Lead Service Line Replacement Locations

Count	Address	Town	Zip Code	Private Side Classification	ROE Status
1	10 FARROWS ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
2	214 PARK RD	Putnam	06260	Lead Status Unknown	No response
3	190 PARK ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
4	178 PARK ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
5	157 PARK ST	Putnam	06260	Galvanized Requiring Replacement	No response
6	174 PARK ST	Putnam	06260	Galvanized Requiring Replacement	No response
7	158 PARK ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
8	324 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement	No response
9	303 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
10	299 SO MAIN ST	Putnam	06260	Lead Status Unknown	No response
11	284 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement	No response
12	270 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement	No response
13	499 POMFRET ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
14	9-11 PARK ST	Putnam	06260	Galvanized Requiring Replacement	No response
15	216 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
16	282 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	No response
17	172 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement	No response
18	197 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
19	62-64 CHAPMAN ST	Putnam	06260	Lead Status Unknown	No response
20	246 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
21	29 EDMOND ST	Putnam	06260	Galvanized Requiring Replacement	No response
22	240 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
23	42 CENTER ST	Putnam	06260	Galvanized Requiring Replacement	No response
24	15 KING ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
25	34-36 CENTER ST	Putnam	06260	Lead Status Unknown	No response
26	9 KING ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
27	41-45 FREMONT ST	Putnam	06260	Lead Status Unknown	No response
28	186 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
29	26-28 CENTER ST	Putnam	06260	Lead Status Unknown	No response
30	190 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
31	22 CENTER ST	Putnam	06260	Galvanized Requiring Replacement	No response
32	232 POMFRET ST	Putnam	06260	Galvanized Requiring Replacement	No response
33	19 FREMONT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
34	176 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
35	15 FREMONT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
36	11 FREMONT ST	Putnam	06260	Galvanized Requiring Replacement	No response
37	42 FREMONT ST	Putnam	06260	Galvanized Requiring Replacement	Opted OUT
38	30 PLEASANT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
39	16 FREMONT ST	Putnam	06260	Lead Status Unknown	No response
40	156 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	No response
41	133 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
42	127 GROVE ST	Putnam	06260	Lead Status Unknown	No response
43	18 PLEASANT ST	Putnam	06260	Galvanized Requiring Replacement	Opted OUT
44	121 GROVE ST	Putnam	06260	Lead Status Unknown	No response
45	93 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
46	59 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	No response
47	57 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	No response
48	41 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
49	114-116 GROVE ST	Putnam	06260	Lead Status Unknown	No response
50	72 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
51	82-86 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
52	70-74 GROVE ST	Putnam	06260	Lead Status Unknown	No response
53	1 BELLEVUE ST	Putnam	06260	Lead Status Unknown	No response
54	34 RING ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
55	36 FLORENCE ST	Putnam	06260	Galvanized Requiring Replacement	No response
56	16 GEORGE ST	Putnam	06260	Galvanized Requiring Replacement	No response
57	21-23 GEORGE ST	Putnam	06260	Galvanized Requiring Replacement	No response
58	24 WILKINSON ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
59	18 FARROWS ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
60	30 SCHOOL ST	Putnam	06260	Galvanized Requiring Replacement	No response
61	83 CANAL ST	Putnam	06260	Lead Status Unknown	No response
62	20 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement	No response
63	46 SCHOOL ST	Putnam	06260	Galvanized Requiring Replacement	No response

Town of Putnam Water Pollution Control Authority
Lead Service Line Replacement Locations

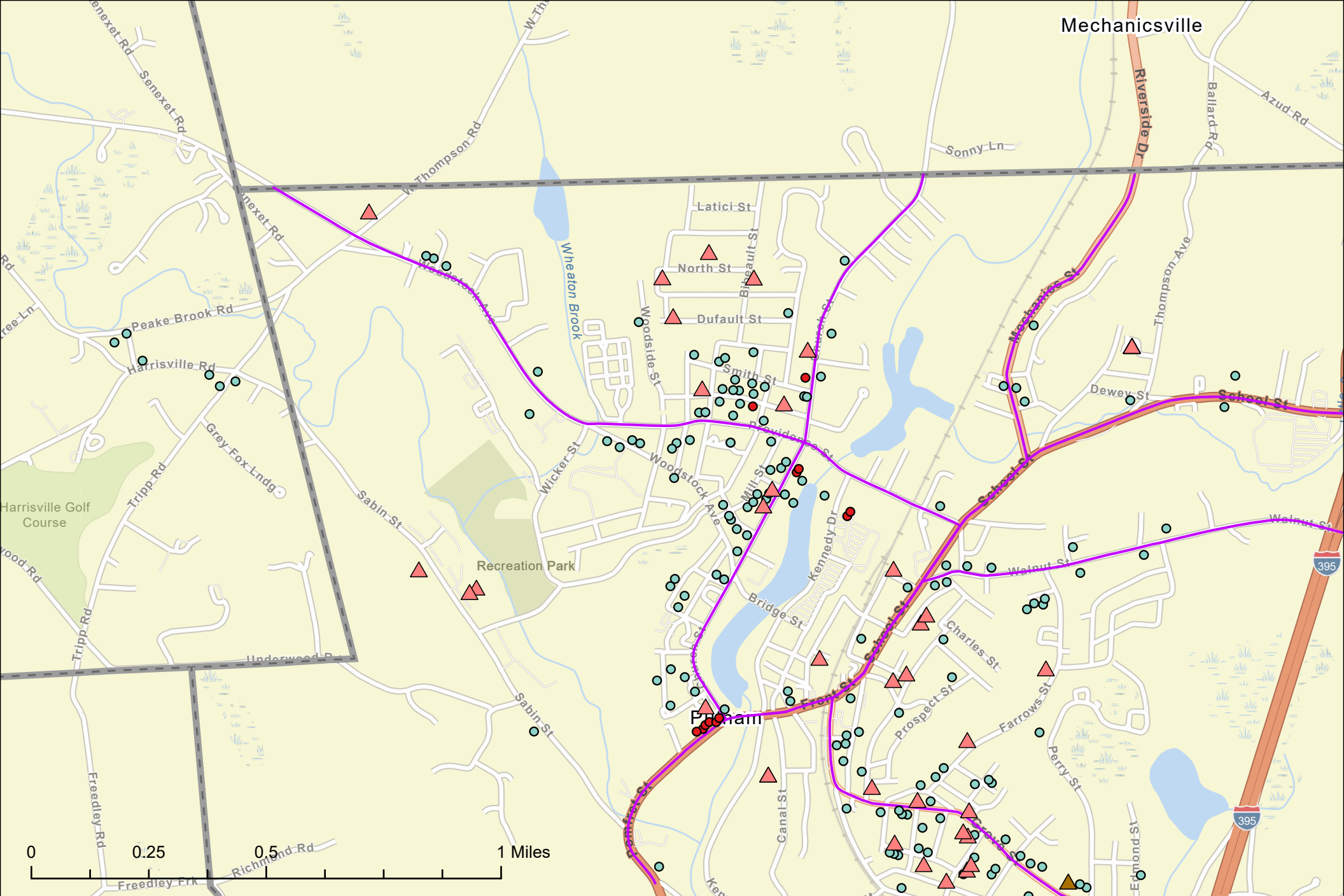
Count	Address	Town	Zip Code	Private Side Classification	ROE Status
64	52-54 SCHOOL ST	Putnam	06260	Galvanized Requiring Replacement	No response
65	57 SCHOOL ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
66	44-48 FARROWS ST	Putnam	06260	Lead Status Unknown	No response
67	112 SABIN ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
68	93-105 FARROWS ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
69	89 WILKINSON ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
70	51 POMFRET ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
71	33 MAPLE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
72	26 CHURCH ST	Putnam	06260	Lead Status Unknown	No response
73	135 MAIN ST	Putnam	06260	Galvanized Requiring Replacement	No response
74	71-83 FRONT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
75	36 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
76	25 GILMAN ST	Putnam	06260	Galvanized Requiring Replacement	No response
77	21-23 FRANKLIN ST	Putnam	06260	Lead Status Unknown	No response
78	52 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
79	110 PROSPECT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
80	34 FRANKLIN ST	Putnam	06260	Lead Status Unknown	No response
81	18 GILMAN ST	Putnam	06260	Galvanized Requiring Replacement	No response
82	126 FARROWS ST	Putnam	06260	Lead Status Unknown	No response
83	21 BUCK ST	Putnam	06260	Lead Status Unknown	No response
84	4 GENEVIEVE ST	Putnam	06260	Galvanized Requiring Replacement	No response
85	33 RAILROAD ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
86	15-19 CENTENNIAL ST	Putnam	06260	Lead Status Unknown	No response
87	23-27 1/2 CENTENNIAL ST	Putnam	06260	Lead Status Unknown	No response
88	65 SUNNYSIDE AVE	Putnam	06260	Galvanized Requiring Replacement	No response
89	20 LEYDEN ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
90	18 LEYDEN ST	Putnam	06260	Galvanized Requiring Replacement	No response
91	12-14 LEYDEN ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
92	8 LEYDEN ST	Putnam	06260	Galvanized Requiring Replacement	No response
93	53 SUNNYSIDE AVE	Putnam	06260	Galvanized Requiring Replacement	No response
94	6-8 BOLLES ST	Putnam	06260	Galvanized Requiring Replacement	No response
95	65 LAUREL ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
96	3 WALNUT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
97	11 WALNUT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
98	140 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
99	57 LAUREL ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
100	28 SUNNYSIDE AVE	Putnam	06260	Galvanized Requiring Replacement	No response
101	113 WALNUT ST	Putnam	06260	Galvanized Requiring Replacement	No response
102	48-50 WALNUT ST	Putnam	06260	Galvanized Requiring Replacement	No response
103	23-25 BOLLES ST	Putnam	06260	Lead Status Unknown	No response
104	257 SABIN ST #5	Putnam	06260	Lead Status Unknown	No response
105	231 SCHOOL ST	Putnam	06260	Galvanized Requiring Replacement	No response
106	290 SABIN ST	Putnam	06260	Lead Status Unknown	No response
107	26 BARBER ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
108	175 WALNUT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
109	7 ROWE ST	Putnam	06260	Galvanized Requiring Replacement	No response
110	170 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
111	184 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	No response
112	28 GREEN ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
113	36 GREEN ST	Putnam	06260	Galvanized Requiring Replacement	No response
114	38 GREEN ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
115	192 WALNUT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
116	21 MILL ST	Putnam	06260	Galvanized Requiring Replacement	No response
117	46-48 GREEN ST	Putnam	06260	Galvanized Requiring Replacement	No response
118	210-212 CHURCH ST	Putnam	06260	Lead Status Unknown	No response
119	25 PROVIDENCE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
120	31 MILL ST	Putnam	06260	Galvanized Requiring Replacement	Opted in
121	216-218 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
122	41-43 MILL ST	Putnam	06260	Galvanized Requiring Replacement	No response
123	222-224 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
124	243 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
125	228-230 CHURCH ST	Putnam	06260	Lead Status Unknown	No response
126	350 KENNEDY DR	Putnam	06260	Galvanized Requiring Replacement	Opted In

Town of Putnam Water Pollution Control Authority
Lead Service Line Replacement Locations

Count	Address	Town	Zip Code	Private Side Classification	ROE Status
127	241 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
128	106-108 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	Opted In
129	67-69 MILL ST	Putnam	06260	Galvanized Requiring Replacement	No response
130	248 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	No response
131	245 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
132	252 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
133	162 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	No response
134	14 MAYNARD ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
135	94-100 MILL ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
136	145 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	Opted In
137	19-23 MAYNARD ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
138	170 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	No response
139	153 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	Opted In
140	218 PROVIDENCE ST	Putnam	06260	Galvanized Requiring Replacement	No response
141	218 PROVIDENCE ST	Putnam	06260	Galvanized Requiring Replacement	No response
142	199 PROVIDENCE ST	Putnam	06260	Galvanized Requiring Replacement	No response
143	223 PROVIDENCE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
144	251 PROVIDENCE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
145	247-249 PROVIDENCE ST	Putnam	06260	Galvanized Requiring Replacement	No response
146	603 SCHOOL ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
147	58 BATTEY ST	Putnam	06260	Galvanized Requiring Replacement	No response
148	21-23 BATTEY ST	Putnam	06260	Lead Status Unknown	No response
149	16 DEWEY ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
150	78 BATTEY ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
151	236 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	Opted In
152	49 MECHANICS ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
153	312-320 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	No response
154	49 BATTEY ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
155	59-61 BATTEY ST	Putnam	06260	Galvanized Requiring Replacement	No response
156	65 BATTEY ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
157	79 BATTEY ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
158	63-65 MECHANICS ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
159	98 VAN DEN NOORT ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
160	87 BATTEY ST	Putnam	06260	Lead Status Unknown	No response
161	64 MECHANICS ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
162	52 SMITH ST	Putnam	06260	Galvanized Requiring Replacement	No response
163	70 SMITH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
164	339 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	No response
165	255 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	Opted In
166	85 SMITH ST	Putnam	06260	Galvanized Requiring Replacement	Opted OUT
167	600 SCHOOL ST	Putnam	06260	Galvanized Requiring Replacement	No response
168	107-111 SMITH ST	Putnam	06260	Galvanized Requiring Replacement	No response
169	32 HARRISON ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
170	79 SMITH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
171	362 CHURCH ST	Putnam	06260	Lead Status Unknown	No response
172	375 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
173	96 WOODSIDE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
174	12 KNOLLWOODS LANE	Putnam	06260	Lead Status Unknown	No response
175	14 KNOLLWOODS LANE	Putnam	06260	Lead Status Unknown	No response
176	15 KNOLLWOODS LANE	Putnam	06260	Lead Status Unknown	No response
177	17 KNOLLWOODS LANE	Putnam	06260	Lead Status Unknown	No response
178	18 KNOLLWOODS LANE	Putnam	06260	Lead Status Unknown	No response
179	19 KNOLLWOODS LANE	Putnam	06260	Lead Status Unknown	No response
180	2 KNOLLWOODS LANE	Putnam	06260	Lead Status Unknown	No response
181	5 KNOLLWOODS LANE	Putnam	06260	Lead Status Unknown	No response
182	8 KNOLLWOODS LANE	Putnam	06260	Lead Status Unknown	No response
183	129-131 MECHANICS ST	Putnam	06260	Galvanized Requiring Replacement	No response
184	99 DUFAULT ST	Putnam	06260	Lead Status Unknown	No response
185	3 DUFAULT ST	Putnam	06260	Galvanized Requiring Replacement	No response
186	53 BIBEALUT ST	Putnam	06260	Lead Status Unknown	No response
187	27 EMOND ST	Putnam	06260	Lead Status Unknown	No response
188	351 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	Opted In
189	442 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement	No response

Town of Putnam Water Pollution Control Authority
Lead Service Line Replacement Locations

Count	Address	Town	Zip Code	Private Side Classification	ROE Status
190	361 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	Opted In
191	365 WOODSTOCK AVE	Putnam	06260	Galvanized Requiring Replacement	Opted In
192	87 NORTH ST	Putnam	06260	Lead Status Unknown	No response
193	2 WEST THOMPSON RD	Putnam	06260	Lead Status Unknown	No response
194	10 LANE RD	Woodstock	06281	Galvanized Requiring Replacement	Opted In
195	139 TRIPP RD	Woodstock	06281	Galvanized Requiring Replacement	No response
196	1 LANE RD	Woodstock	06281	Galvanized Requiring Replacement	Opted In
197	10 DUPRE RD	Woodstock	06281	Galvanized Requiring Replacement	No response
198	217 HARRISVILLE RD	Woodstock	06281	Galvanized Requiring Replacement	Opted In
199	140 TRIPP RD	Woodstock	06281	Galvanized Requiring Replacement	Opted In
200	77 INDUSTRIAL PARK (HYDRANT)	Putnam	06260	Lead Status Unknown	No response
201	7.5 LAMOTHE ST	Putnam	06260	Galvanized Requiring Replacement	No response
202	53 GROVE ST	Putnam	06260	Galvanized Requiring Replacement	Opted In
203	312 -320 CHURCH ST (318)	Putnam	06260	Galvanized Requiring Replacement	No response
204	257 SABIN ST (IRRIG)	Putnam	06260	Lead Status Unknown	No response
205	133-145 PARK ST (FIRE/NO BLDG)	Putnam	06260	Galvanized Requiring Replacement	No response
206	109 MAIN ST (ANTIQUE)	Putnam	06260	Galvanized Requiring Replacement	No response
207	57 POMFRET ST	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
208	61-63 POMFRET ST (63)	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	Opted In
209	65-67 POMFRET ST	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
210	69-71 POMFRET ST	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
211	73 POMFRET ST	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
212	75-79 POMFRET ST (1)	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
213	75-79 POMFRET ST (2)	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
214	75-79 POMFRET ST (3)	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
215	332 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
216	334 1/2 SO MAIN ST	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
217	224 GROVE ST (1)	Putnam	06260	Lead Status Unknown - Daisy Chain Service Line	No response
218	224 GROVE ST (2)	Putnam	06260	Lead Status Unknown - Daisy Chain Service Line	No response
219	251 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	Opted In
220	255 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
221	335 KENNEDY DR	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	Opted In
222	333 KENNEDY DR	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
223	48-50 BATTEY ST (1)	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
224	48-50 BATTEY ST (2)	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response
225	330 CHURCH ST	Putnam	06260	Galvanized Requiring Replacement - Daisy Chain Service Line	No response



Traffic Control Roads

Private Side Classification

Galvanized Requiring Replacement

Galvanized Requiring Replacement - Daisy Chain Service Line

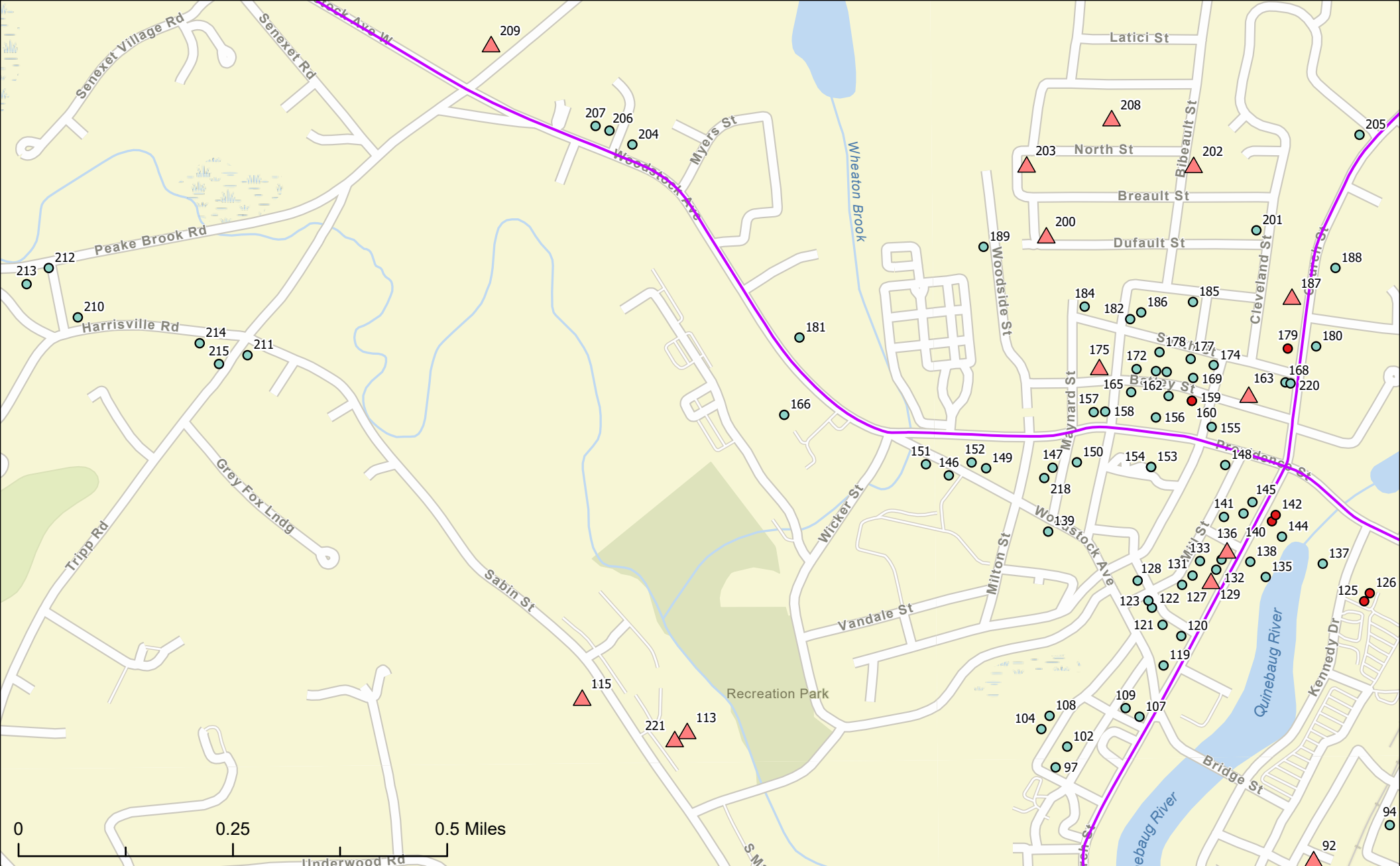
Lead Status Unknown

Lead Status Unknown - Daisy Chain Service Line

GRR and Unknown Service Line Locations - Putnam CT

Data Sources: CTDOT

**CDM
Smith**



GRR and Unknown Service Line Locations - Putnam CT

Traffic Control Roads

— Traffic Control Roads

Private Side Classification

● Galvanized Requiring Replacement

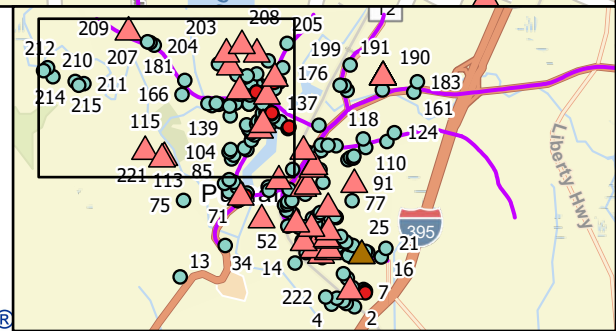
● Galvanized Requiring Replacement - Daisy Chain Service Line

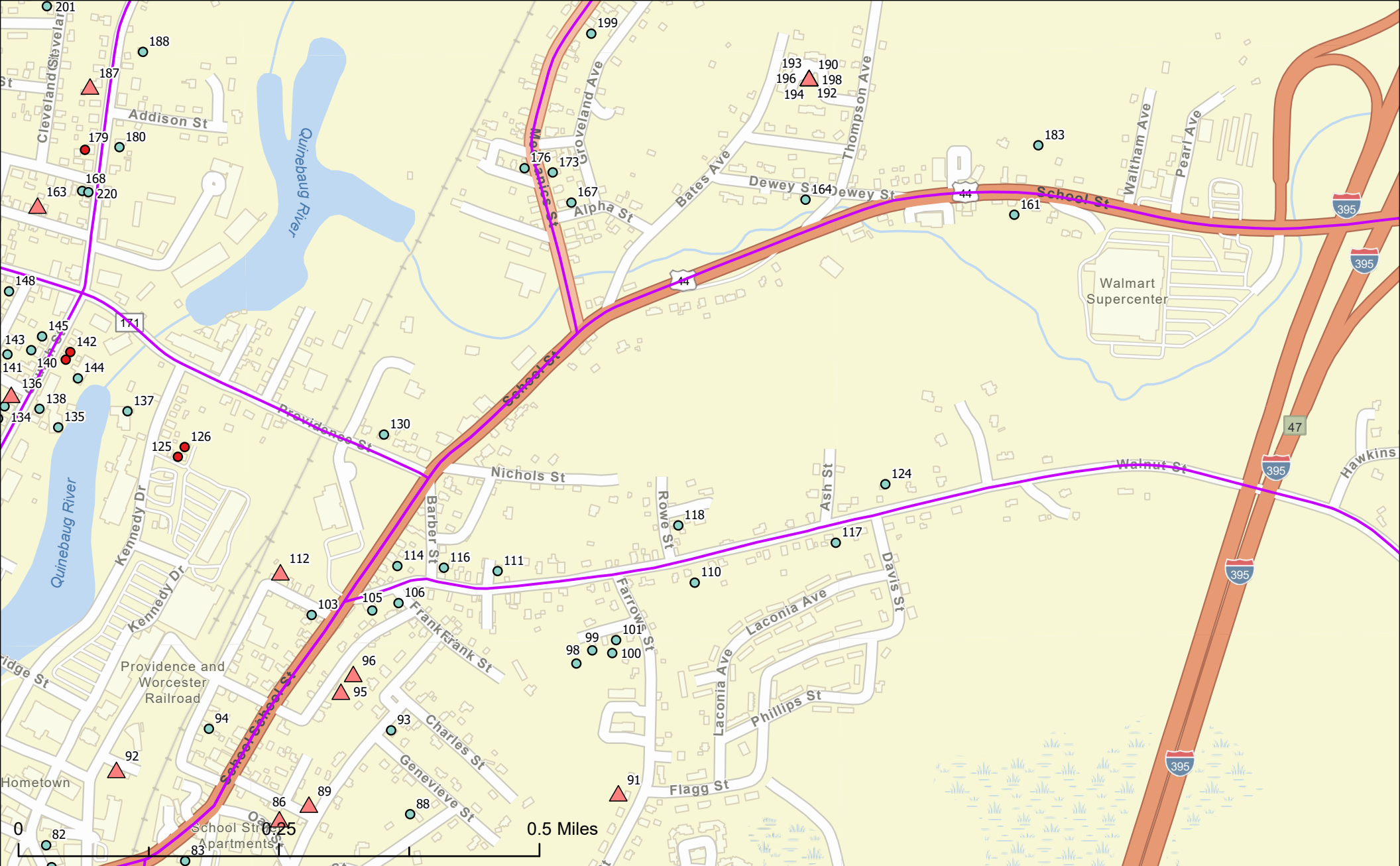
▲ Lead Status Unknown

▲ Lead Status Unknown - Daisy Chain Service Line

Data Source: CT Department of Transportation

**CDM
Smith**





Traffic Control Roads

— Traffic Control Roads

Private Side Classification

● Galvanized Requiring Replacement

● Galvanized Requiring Replacement - Daisy Chain Service Line

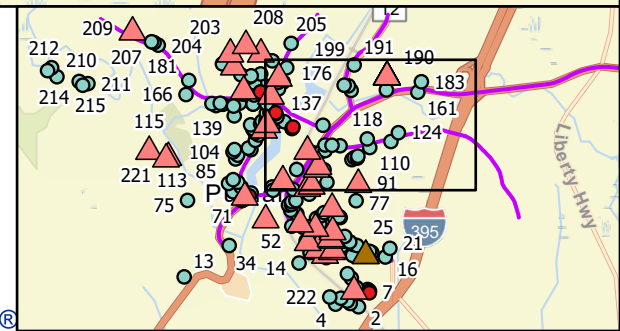
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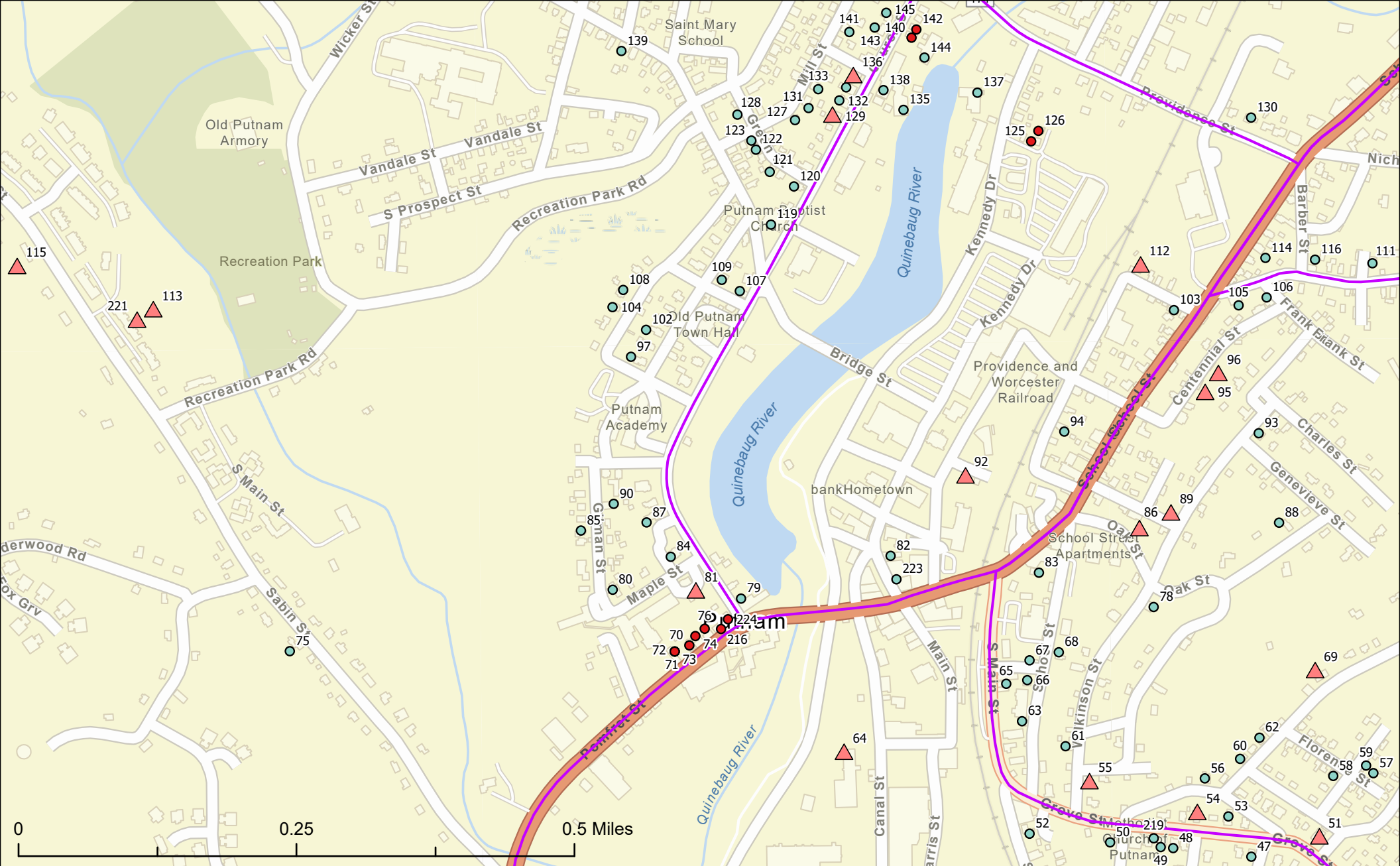
▲ Lead Status Unknown - Daisy Chain Service Line

GRR and Unknown Service Line Locations - Putnam CT

Data Source: CT Department of Transportation

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Traffic Control Roads

— Traffic Control Roads

Private Side Classification

● Galvanized Requiring Replacement

● Galvanized Requiring Replacement - Daisy Chain Service Line

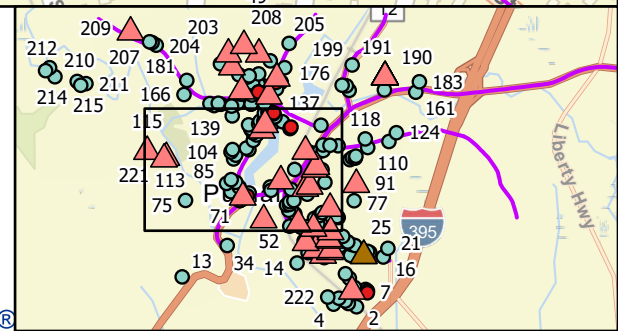
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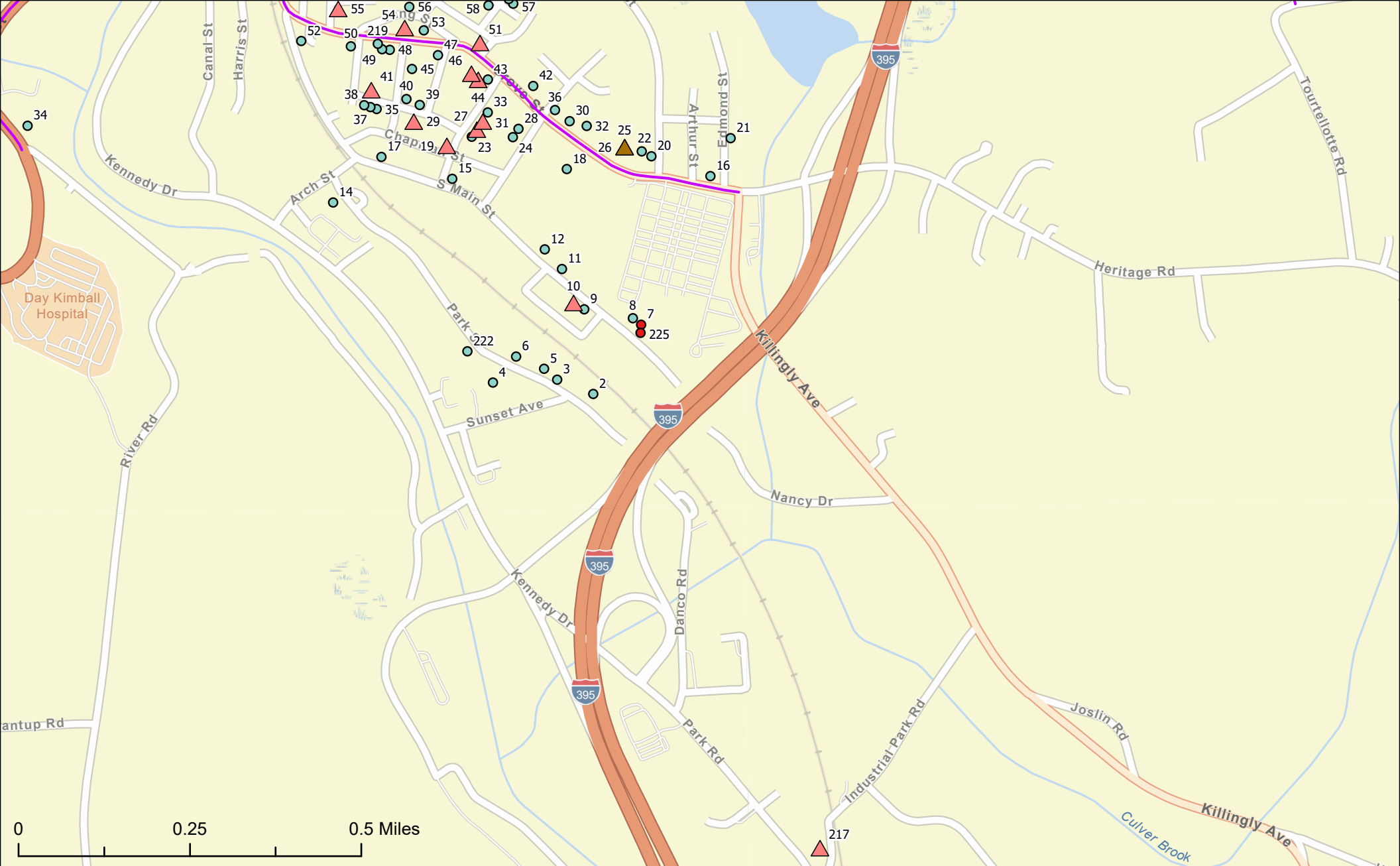
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GRR and Unknown Service Line Locations - Putnam CT

Data Source: CT Department of Transportation

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Traffic Control Roads

Private Side Classification

● Galvanized Requiring Replacement

● Galvanized Requiring Replacement - Daisy Chain Service Line

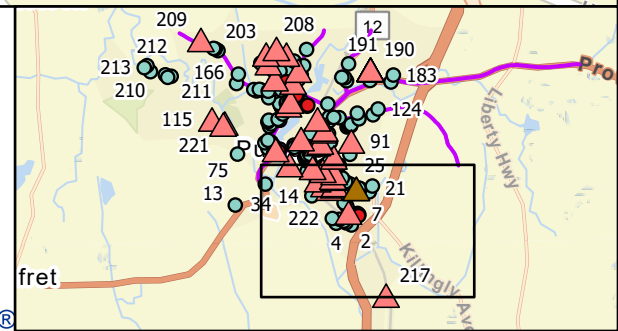
▲ Lead Status Unknown

▲ Lead Status Unknown - Daisy Chain Service Line

GRR and Unknown Service Line Locations - Putnam CT

Data Source: CT Department of Transportation

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LOCATION	Label_ID	LOCATION	Label_ID	LOCATION	Label_ID	LOCATION	Label_ID
214 PARK RD	1	16 GEORGE ST	58	290 SABIN ST	115	79 BATTEY ST	172
190 PARK ST	2	21-23 GEORGE ST	59	26 BARBER ST	116	63-65 MECHANICS ST	173
178 PARK ST	3	10 FARROWS ST	60	175 WALNUT ST	117	98 VAN DEN NOORT ST	174
157 PARK ST	4	24 WILKINSON ST	61	7 ROWE ST	118	87 BATTEY ST	175
174 PARK ST	5	18 FARROWS ST	62	170 CHURCH ST	119	64 MECHANICS ST	176
158 PARK ST	6	30 SCHOOL ST	63	184 CHURCH ST	120	52 SMITH ST	177
332 SO MAIN ST	7	83 CANAL ST	64	28 GREEN ST	121	70 SMITH ST	178
324 SO MAIN ST	8	20 SO MAIN ST	65	36 GREEN ST	122	330-332 CHURCH ST	179
303 SO MAIN ST	9	46 SCHOOL ST	66	38 GREEN ST	123	339 CHURCH ST	180
299 SO MAIN ST	10	52-54 SCHOOL ST	67	192 WALNUT ST	124	255 WOODSTOCK AVE	181
284 SO MAIN ST	11	57 SCHOOL ST	68	335 KENNEDY DR	125	85 SMITH ST	182
270 SO MAIN ST	12	44-48 FARROWS ST	69	333 KENNEDY DR	126	600 SCHOOL ST	183
499 POMFRET ST	13	73 POMFRET ST	70	21 MILL ST	127	107-111 SMITH ST	184
9-11 PARK ST	14	75-79 POMFRET ST	71	46-48 GREEN ST	128	32 HARRISON ST	185
216 SO MAIN ST	15	75-79 POMFRET ST	72	210-212 CHURCH ST	129	79 SMITH ST	186
282 GROVE ST	16	75-79 POMFRET ST	73	25 PROVIDENCE ST	130	362 CHURCH ST	187
172 SO MAIN ST	17	69-71 POMFRET ST	74	31 MILL ST	131	375 CHURCH ST	188
197 GROVE ST	18	112 SABIN ST	75	216-218 CHURCH ST	132	96 WOODSIDE ST	189
62-64 CHAPMAN ST	19	65-67 POMFRET ST	76	41-43 MILL ST	133	12 KNOLLWOODS LANE	190
246 GROVE ST	20	93-105 FARROWS ST	77	222-224 CHURCH ST	134	14 KNOLLWOODS LANE	191
29 EDMOND ST	21	89 WILKINSON ST	78	243 CHURCH ST	135	15 KNOLLWOODS LANE	192
240 GROVE ST	22	51 POMFRET ST	79	228-230 CHURCH ST	136	17 KNOLLWOODS LANE	193
42 CENTER ST	23	33 MAPLE ST	80	350 KENNEDY DR	137	18 KNOLLWOODS LANE	194
15 KING ST	24	26 CHURCH ST	81	241 CHURCH ST	138	19 KNOLLWOODS LANE	195
224 GROVE ST	25	135 MAIN ST	82	106-108 WOODSTOCK AVE	139	2 KNOLLWOODS LANE	196
224 GROVE ST	26	71-83 FRONT ST	83	251 CHURCH ST	140	5 KNOLLWOODS LANE	197
34-36 CENTER ST	27	36 CHURCH ST	84	67-69 MILL ST	141	8 KNOLLWOODS LANE	198
9 KING ST	28	25 GILMAN ST	85	255 CHURCH ST	142	129-131 MECHANICS ST	199
41-45 FREMONT ST	29	21-23 FRANKLIN ST	86	248 CHURCH ST	143	99 DUFAULT ST	200
186 GROVE ST	30	52 CHURCH ST	87	245 CHURCH ST	144	3 DUFAULT ST	201
26-28 CENTER ST	31	110 PROSPECT ST	88	252 CHURCH ST	145	53 BIBEALT ST	202
190 GROVE ST	32	34 FRANKLIN ST	89	162 WOODSTOCK AVE	146	27 EMOND ST	203
22 CENTER ST	33	18 GILMAN ST	90	14 MAYNARD ST	147	351 WOODSTOCK AVE	204
232 POMFRET ST	34	126 FARROWS ST	91	94-100 MILL ST	148	442 CHURCH ST	205
19 FREMONT ST	35	21 BUCK ST	92	145 WOODSTOCK AVE	149	361 WOODSTOCK AVE	206
176 GROVE ST	36	4 GENEVIEVE ST	93	19-23 MAYNARD ST	150	365 WOODSTOCK AVE	207
15 FREMONT ST	37	33 RAILROAD ST	94	170 WOODSTOCK AVE	151	87 NORTH ST	208
11 FREMONT ST	38	15-19 CENTENNIAL ST	95	153 WOODSTOCK AVE	152	2 WEST THOMPSON RD	209
42 FREMONT ST	39	23-27 1/2 CENTENNIAL ST	96	218 PROVIDENCE ST	153	10 LANE RD	210
30 PLEASANT ST	40	65 SUNNYSIDE AVE	97	218 PROVIDENCE ST	154	139 TRIPP RD	211
16 FREMONT ST	41	20 LEYDEN ST	98	199 PROVIDENCE ST	155	1 LANE RD	212
156 GROVE ST	42	18 LEYDEN ST	99	223 PROVIDENCE ST	156	10 DUPRE RD	213
133 GROVE ST	43	12-14 LEYDEN ST	100	251 PROVIDENCE ST	157	217 HARRISVILLE RD	214
127 GROVE ST	44	8 LEYDEN ST	101	247-249 PROVIDENCE ST	158	140 TRIPP RD	215
18 PLEASANT ST	45	53 SUNNYSIDE AVE	102	48-50 BATTEY ST	159	61 -63 POMFRET ST (63)	216
121 GROVE ST	46	6-8 BOLLES ST	103	48-50 BATTEY ST	160	77 INDUSTRIAL PARK (HYDRANT)	217
93 GROVE ST	47	65 LAUREL ST	104	603 SCHOOL ST	161	7 .5 LAMOTHE ST	218
59 GROVE ST	48	3 WALNUT ST	105	58 BATTEY ST	162	53 GROVE ST	219
57 GROVE ST	49	11 WALNUT ST	106	21-23 BATTEY ST	163	312 -320 CHURCH ST (318)	220
41 GROVE ST	50	140 CHURCH ST	107	16 DEWEY ST	164	257 SABIN ST (IRRIG)	221
114-116 GROVE ST	51	57 LAUREL ST	108	78 BATTEY ST	165	133 -145 PARK ST (FIRE/NO BLDG)	222
72 SO MAIN ST	52	28 SUNNYSIDE AVE	109	236 WOODSTOCK AVE	166	109 MAIN ST (ANTIQUUE)	223
82-86 GROVE ST	53	113 WALNUT ST	110	49 MECHANICS ST	167	57 POMFRET ST	224
70-74 GROVE ST	54	48-50 WALNUT ST	111	312-320 CHURCH ST	168	334 1/2 SO MAIN ST	225
1 BELLEVUE ST	55	23-25 BOLLES ST	112	49 BATTEY ST	169		
34 RING ST	56	257 SABIN ST #5	113	59-61 BATTEY ST	170		
36 FLORENCE ST	57	231 SCHOOL ST	114	65 BATTEY ST	171		

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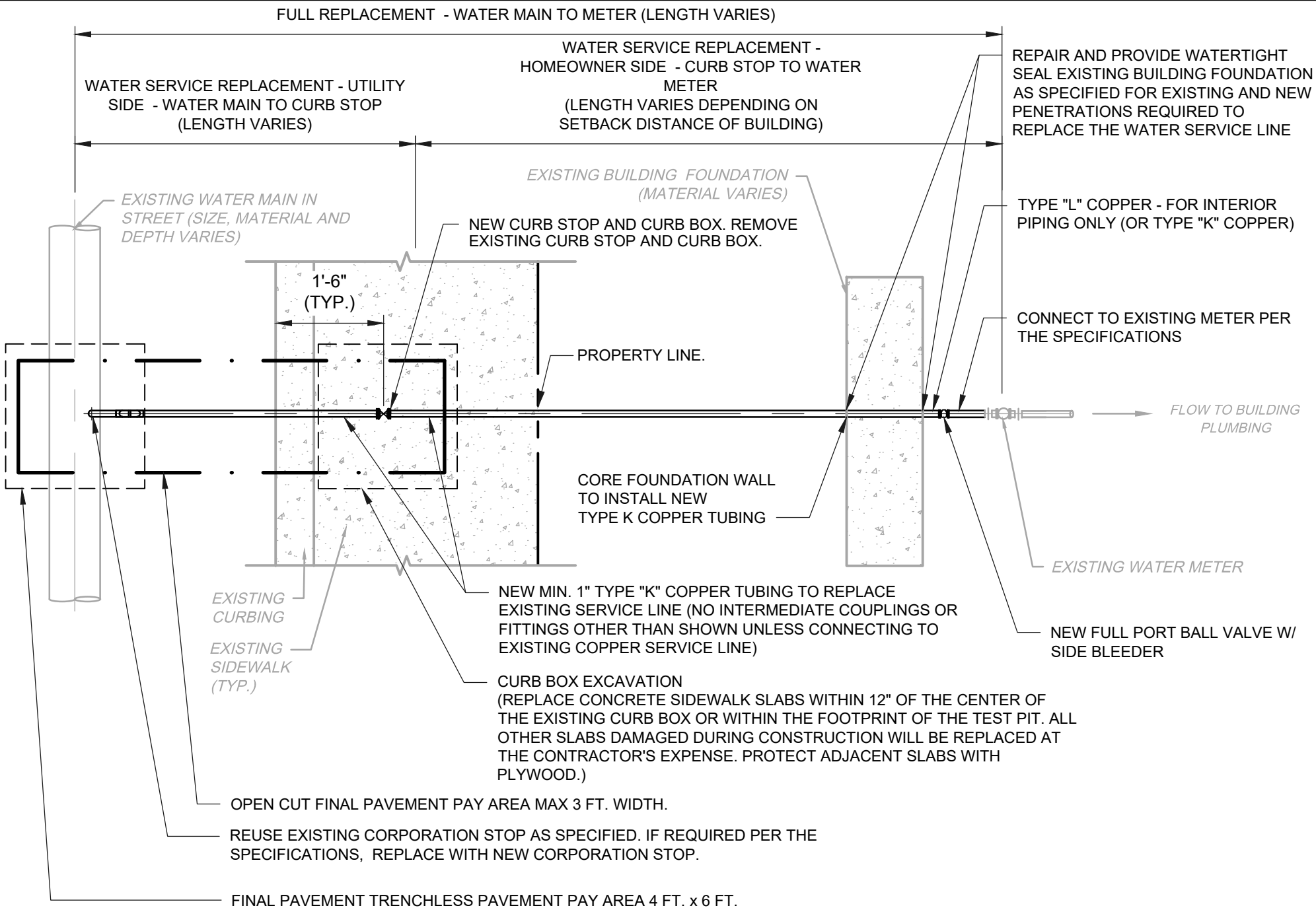


Appendix B Construction Details

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NOTES:

1. CONTRACTOR SHALL COORDINATE ALL SERVICE LINE REPLACEMENT ACTIVITIES WITH A REPRESENTATIVE FROM THE ENGINEER, OWNER AND CUSTOMERS (PROPERTY OWNER OR TENANT) PRIOR TO COMMENCING SERVICE LINE REPLACEMENT WORK. CONTRACTOR MUST OBTAIN EXECUTED RIGHT OF ENTRY AUTHORIZATION FOR LEAD/GALVANIZED SERVICE LINE REPLACEMENT FORM FOR PERMISSION TO WORK ON PRIVATE PROPERTY BEFORE COMMENCING WITH ANY WORK.
2. SERVICE LINE SHALL BE REPLACED BY TRENCHLESS METHODS WHEREVER POSSIBLE FOLLOWING SPECIFICATIONS 02151, 02663 AND 02768 AS APPLICABLE.
3. THIS DETAIL REPRESENTS TYPICAL CONDITIONS AND WATER SERVICE CONNECTION REPLACEMENT CONNECTING TO THE EXISTING METER INSIDE THE BUILDING. EACH LOCATION MAY VARY.
4. CONTRACTOR SHALL RESTORE ALL SURFACE FEATURES AND LANDSCAPING EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
5. CONTRACTOR SHALL FURNISH ONE FULL PORT BALL VALVE MATCHING THE EXISTING SERVICE DIAMETER THAT SHALL BE INSTALLED BY THE CONTRACTOR BETWEEN THE BUILDING FOUNDATION AND THE WATER METER YOKE.
6. EXISTING WATER AND SEWER SERVICES MAY BE LOCATED IN CLOSE PROXIMITY AND/OR THE SAME TRENCH. CONTRACTOR IS CAUTIONED AS TO THE POTENTIAL CLOSE PROXIMITY OF WATER AND SEWER SERVICES. OPEN CUTTING REPLACEMENT MAY BE REQUIRED TO PREVENT DAMAGING THE SEWER LINE. CONTRACTOR IS RESPONSIBLE TO REPAIR ANY DAMAGE TO SEWER LINE DURING CONSTRUCTION. REFER TO SPECIFICATION SECTION 01170 FOR ADDITIONAL NOTES AND REQUIREMENTS.
7. NEW COPPER SERVICE TUBING SHALL BE BROUGHT INTO THE BUILDING FOUNDATION TO THE INLET OF THE EXISTING WATER METER. INTERIOR PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH PERMIT REQUIREMENTS.



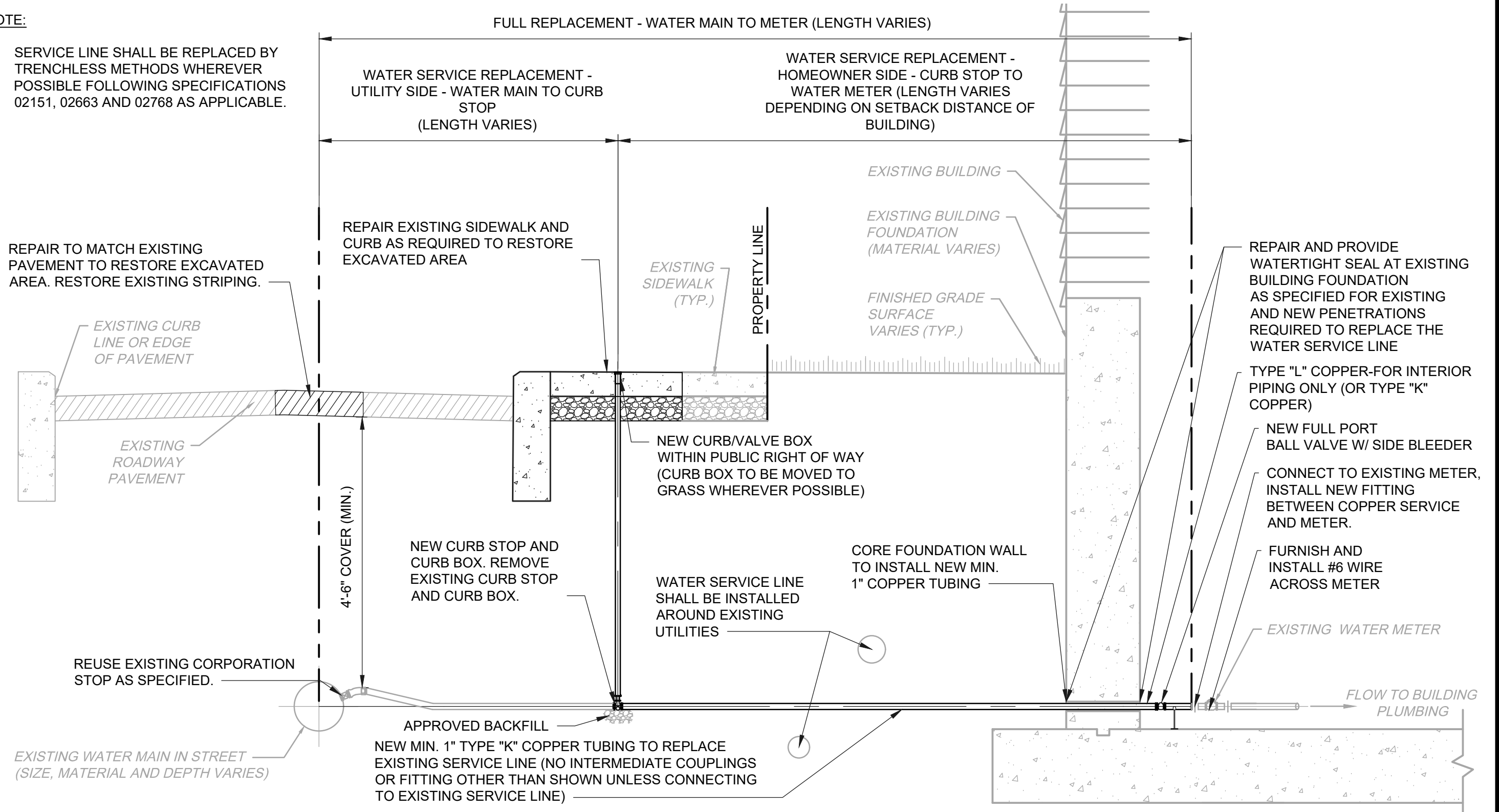
TYPICAL WATER SERVICE CONNECTION METER INSIDE BUILDING
PLAN VIEW

NTS

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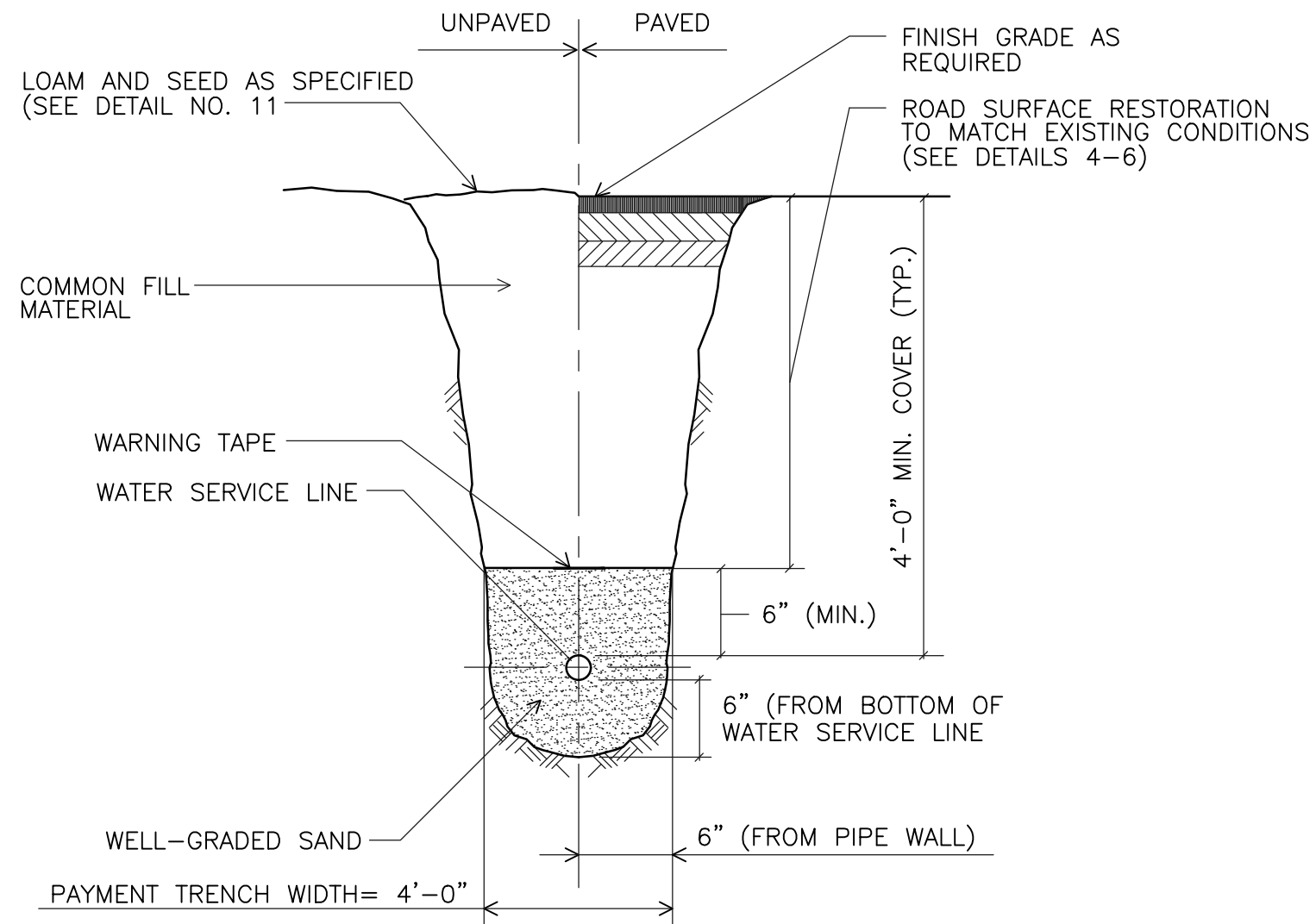
NOTE:

1. SERVICE LINE SHALL BE REPLACED BY TRENCHLESS METHODS WHEREVER POSSIBLE FOLLOWING SPECIFICATIONS 02151, 02663 AND 02768 AS APPLICABLE.



**TYPICAL WATER SERVICE CONNECTION
SCHEMATIC SECTION WITH METER IN BASEMENT**

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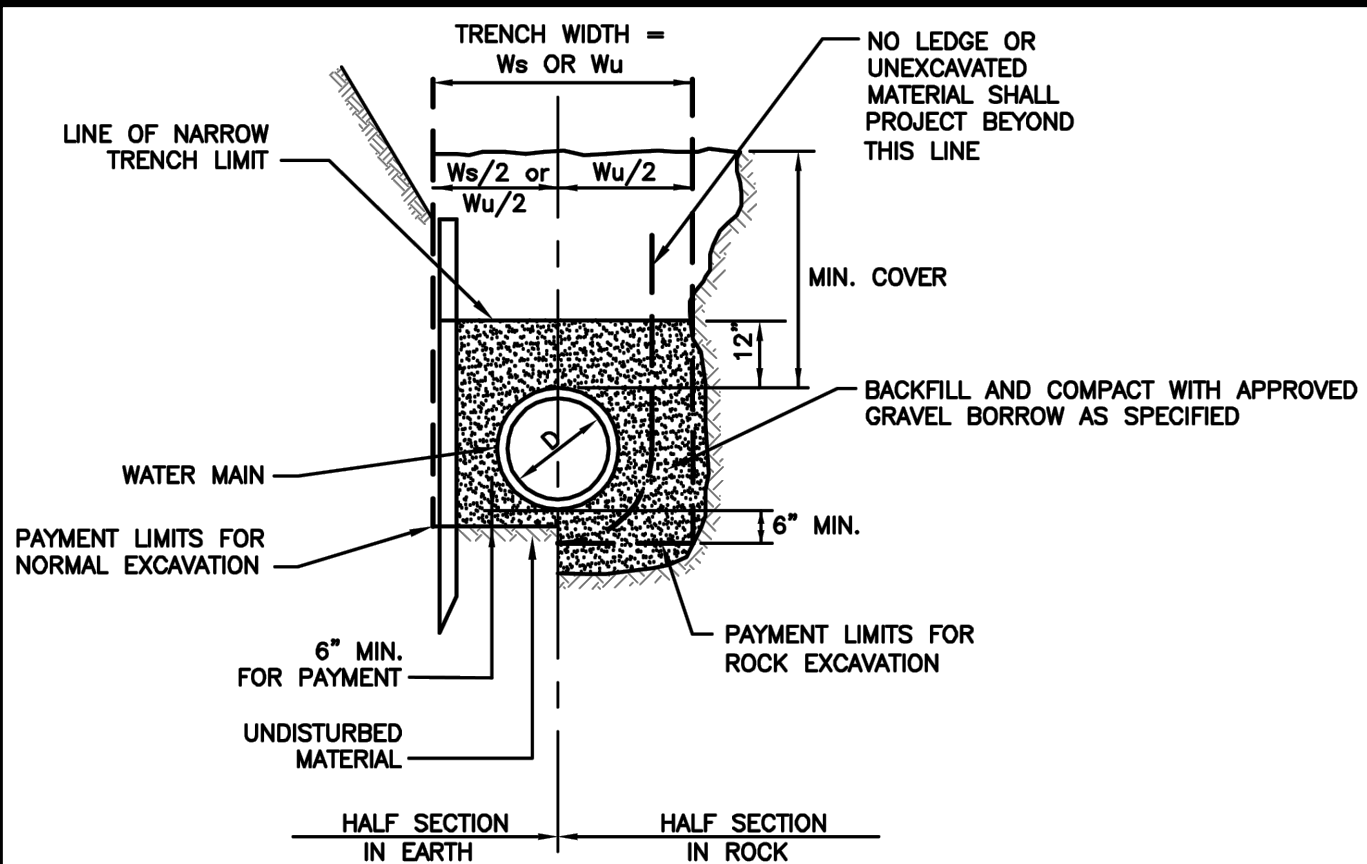


TYPICAL TRENCH DETAIL
FOR WATER SERVICE LINE
NTS

NOTES:

1. MAXIMUM PAY WIDTH FOR TRENCH IS 1'-6" ON EITHER SIDE OF WATER MAIN INSTALLED BY CONTRACTOR.
2. PIPE BEDDING AND COVER FOR COPPER PIPE SHALL BE SHOWN AS ON DETAIL NO. 3 TO 6" ABOVE THE TOP OF THE PIPE WITH WARNING TAPE. COMPACTED BACKFILL, WHICH IS BELOW THE BASE COURSE LAYER AND ABOVE THE PIPE COVER LAYER, SHALL BE AS SHOWN IN THE TABLE.

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TRENCH WIDTH W_s OR W_u		
DIAMETER OF PIPE D	W_u UNSHEETED	W_s SHEETED
12" AND SMALLER	3'-0"	4'-2"
15"	3'-2"	4'-4"
18"	3'-6"	4'-8"
21"	3'-10"	5'-0"
24"	4'-2"	5'-4"

TRENCH WIDTH TABLE
NOT TO SCALE

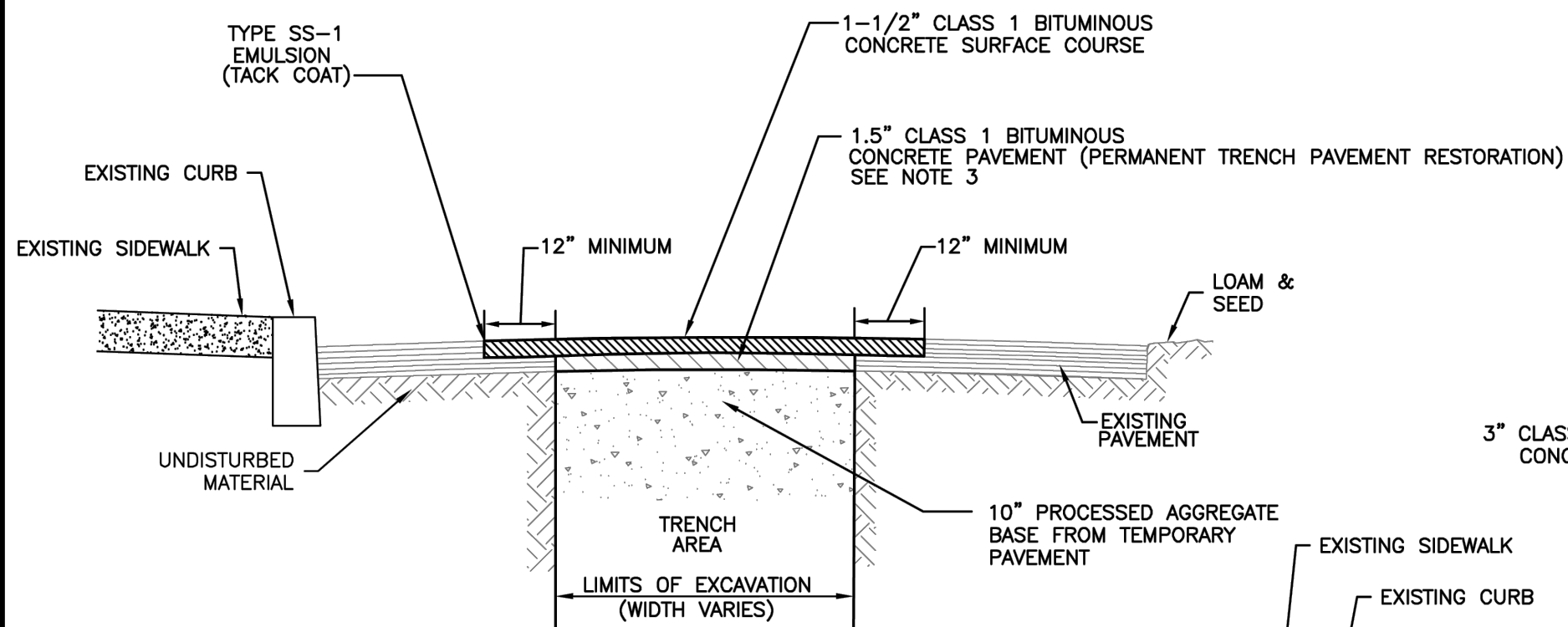
**TRENCH SECTION FOR WATER MAIN
UP TO 24" DIAMETER**

NTS

*** NO STONE LARGER THAN 2" FOR CAST IRON, DUCTILE IRON AND CONCRETE PIPES. USE SAND FOR STEEL, PLASTIC AND ASBESTOS-CEMENT PIPE. USE OF SELECTED EXCAVATED MATERIAL AS APPROVED BY THE ENGINEER.**

NOTES:

1. PRIOR TO PAVING, THE CONTRACTOR IS TO NOTIFY THE ENGINEERING DIVISION.
2. PAVING SPECIFICATIONS ARE TO FOLLOW SECTION 4.06 OF THE STATE OF CONNECTICUT, DEPARTMENT OF TRANSPORTATION FORM 819 AND SUPPLEMENT SPECIFICATIONS.
3. PARTICULAR ATTENTION WILL BE PAID TO TEMPERATURE OF THE BITUMINOUS CONCRETE, AMBIENT AIR TEMPERATURE AND GROUND TEMPERATURE.
4. ALL PAVEMENT SHALL BE PLACED BY MECHANICAL MEANS.
5. THE LIMITS OF MILLING AND RESURFACING WILL BE DETERMINED IN THE FIELD BY THE OWNER, CITY, TOWNSHIP AND COUNTY INSPECTOR DURING CONSTRUCTION.
6. WHEN PERFORMING THE ROADWAY WORK, CARE IS TO BE EXERCISED TO AVOID INTERFERENCE WITH THE FREE FLOW OF TRAFFIC DURING THE RUSH HOURS (I.E. PRIOR TO 9:00 AM AND AFTER 3:00 PM).
7. WHEN EXCAVATING IN THE ROADWAY PAVEMENT, TRAFFIC CONTROL IS TO BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
8. THE NEED FOR UNIFORMED POLICE OFFICER TRAFFIC CONTROL WILL BE DETERMINED BY INVOLVED JURISDICTION'S POLICE DEPARTMENT.
9. TEMPORARY TRAFFIC STRIPES AND PAVEMENT MARKINGS ARE TO BE REPLACED IMMEDIATELY UPON PLACEMENT OF TEMPORARY PAVEMENT. PERMANENT STRIPING AND/OR MARKINGS ARE TO BE LONG LIFE EPOXY RESIN.
10. ANY REMOVAL OF THE EXISTING CURB AND ITS REPLACEMENT IS TO BE FROM JOINT TO JOINT.
11. PRIOR TO CONSTRUCTION, THE CONTRACTOR PERFORMING THE WORK IS TO OBTAIN AN APPLICATION FOR A ROAD OPENING PERMIT.
12. TRENCHES MAY BE EXCAVATED WIDER THAN TRENCH WIDTH W_s ABOVE THE "LINE OR NARROW TRENCH LIMIT."
13. BELOW THE "LINE OF NARROW TRENCH LIMIT" THE TRENCH SHALL NOT BE EXCAVATED BEYOND THE TRENCH WIDTH W_s .
14. SHEETING, IF USED, IN ALL CASES SHALL BE LEFT IN PLACE BELOW A LINE 1'-0" ABOVE THE TOP OF THE PIPE, UNLESS OTHERWISE INDICATED OR DIRECTED.
15. "COVER" AT ANY POINT SHALL BE DEFINED AS THE VERTICAL DISTANCE FROM THE UPPER MOST POINT OF THE PIPE TO A LINE WHICH CONNECTS THE SURFACE OF UNDISTURBED GROUND AT EITHER SIDE OF THE TRENCH AT THAT POINT.
16. WHERE FUTURE EXTENSION OF A CAPPED PIPE, OR CAPPED BRANCH WILL REQUIRE ROCK EXCAVATION, TRENCH EXCAVATION IN ROCK SHALL BE EXTENDED FOR A DISTANCE OF 3'-0" BEYOND THE PLUG.
17. UNSUITABLE EXCAVATED MATERIAL SHALL BE REPLACED WITH GRAVEL BORROW AS DIRECTED.

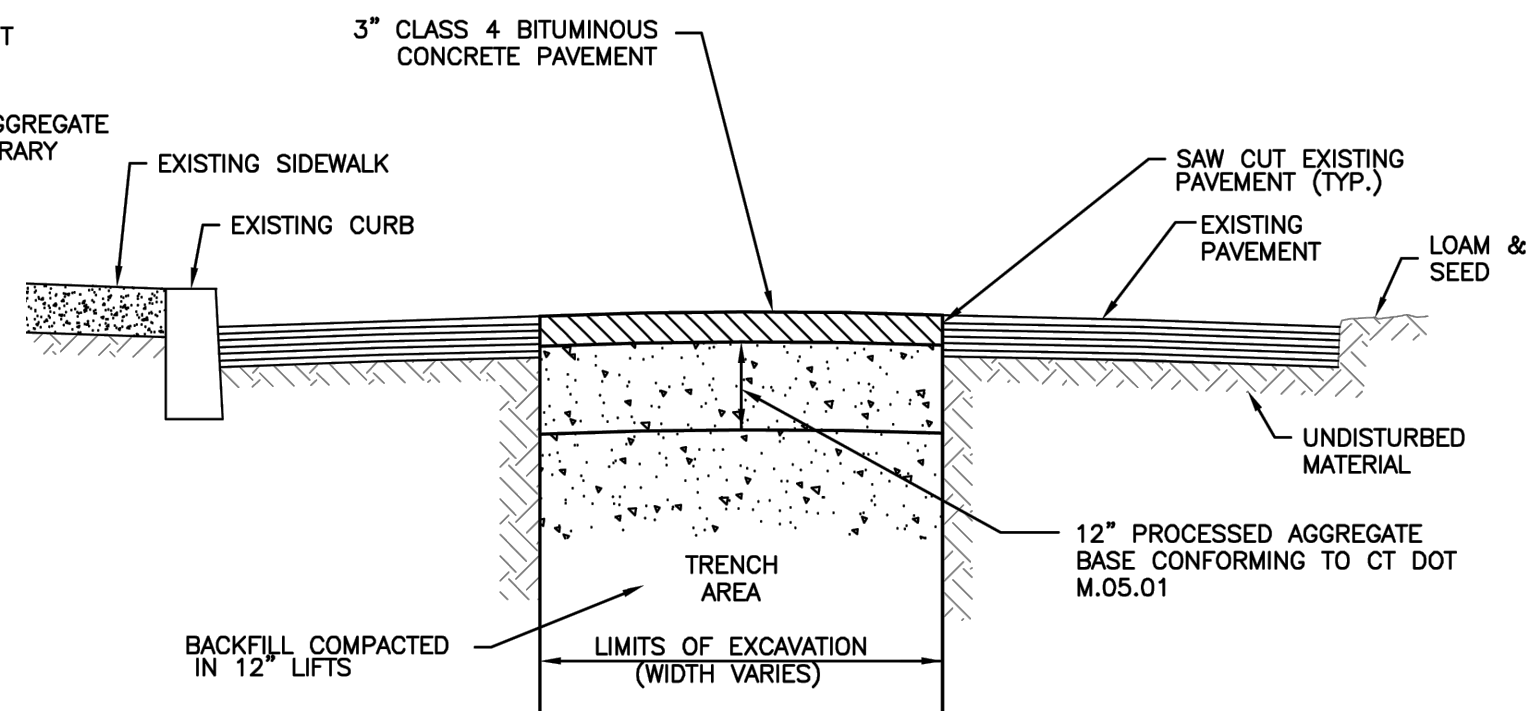


NOTES:

1. ONCE THE 3" PERMANENT TRENCH PAVEMENT IS COMPLETE, THE TRENCH WIDTH WILL BE COLD PLANNED TO A DEPTH OF 1 ½" AND PAVED WITH 1 ½" CLASS 1 BITUMINOUS SURFACE COURSE.
2. MINIMUM PAVEMENT THICKNESS TO BE 1-1/2 INCHES. MAXIMUM PAVEMENT THICKNESS PER COURSE NOT TO EXCEED 3 INCHES. CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT.
3. CUT BACK DISTANCES SHALL BE AS DIRECTED BY THE ENGINEER, HOWEVER UNDER NO CIRCUMSTANCES LESS THAN THE MINIMUM INDICATED.

TRENCH RESTORATION
COLD PLANNING AND 1-1/2" OVERLAY FOR TOWN
ROADS

NOT TO SCALE



NOTES:

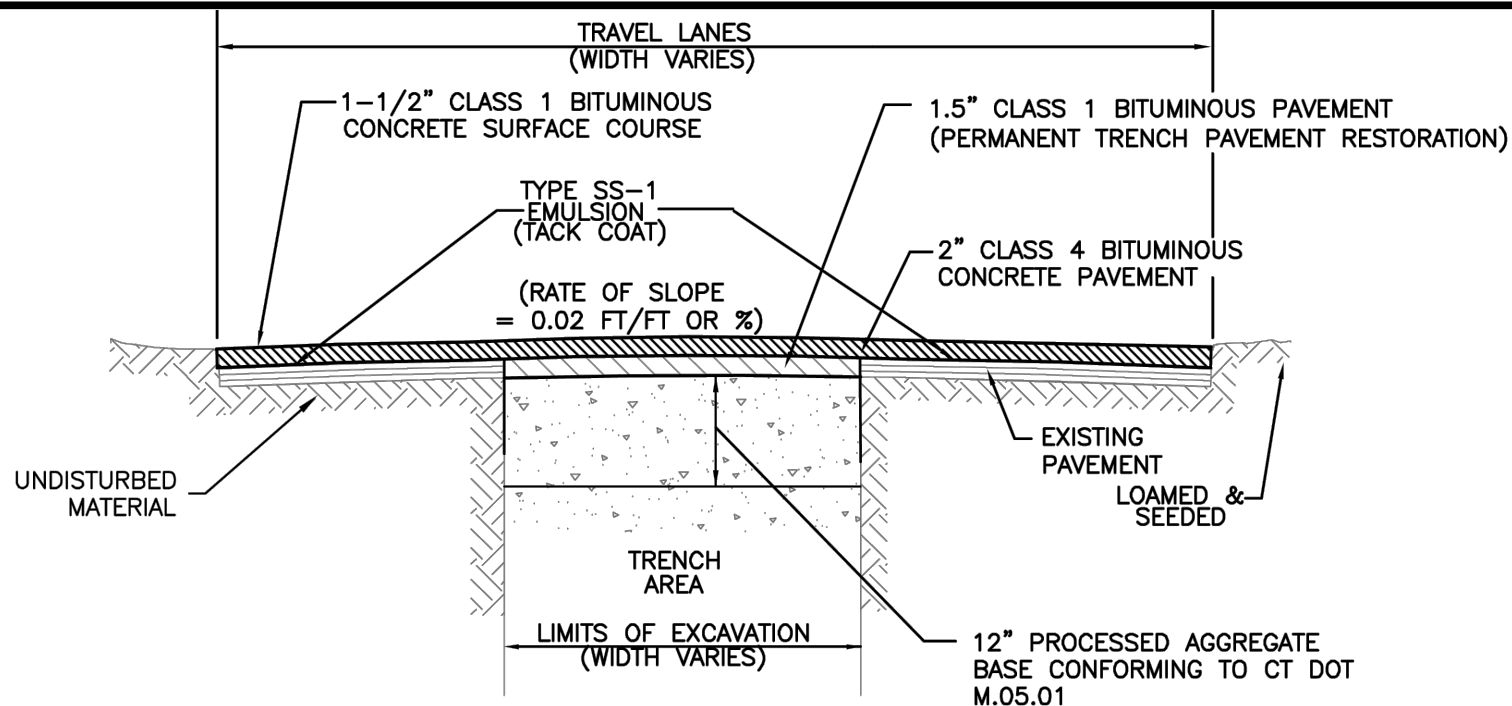
1. CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT OR %.

3" PERMANENT TRENCH PAVEMENT RESTORATION FOR TOWN ROADS

NOT TO SCALE

PAVEMENT RESTORATION FOR TOWN ROADS

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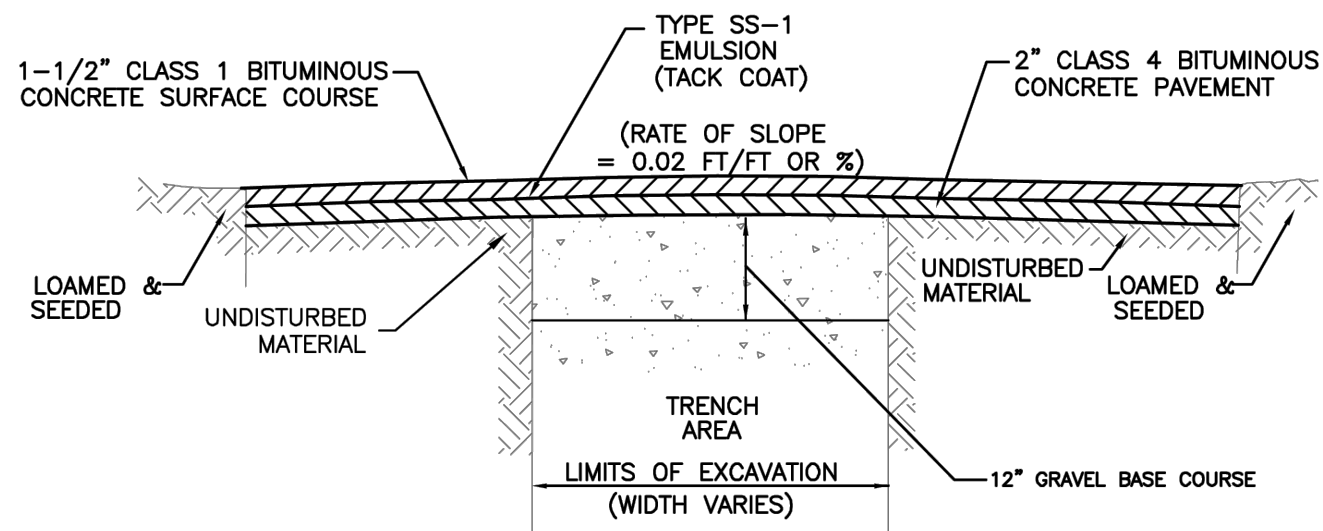


NOTES:

1. MINIMUM PAVEMENT THICKNESS TO BE 1-1/2". MAXIMUM PAVEMENT THICKNESS PER COURSE NOT TO EXCEED 3 INCHES. CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT.
2. CUT BACK DISTANCES SHALL BE AS DIRECTED BY THE ENGINEER, HOWEVER UNDER NO CIRCUMSTANCES LESS THAN THE MINIMUM INDICATED.
3. ONCE THE 3" PERMANENT TRENCH PAVEMENT IS COMPLETE, THE ENTIRE ROAD WILL BE COLD PLANNED TO A DEPTH OF 1 1/2" AND PAVED WITH 1 1/2" BITUMINOUS SURFACE COURSE.

CURB-TO-CURB COLD PLANNING AND 1-1/2" OVERLAY FOR TOWN ROADS

NOT TO SCALE

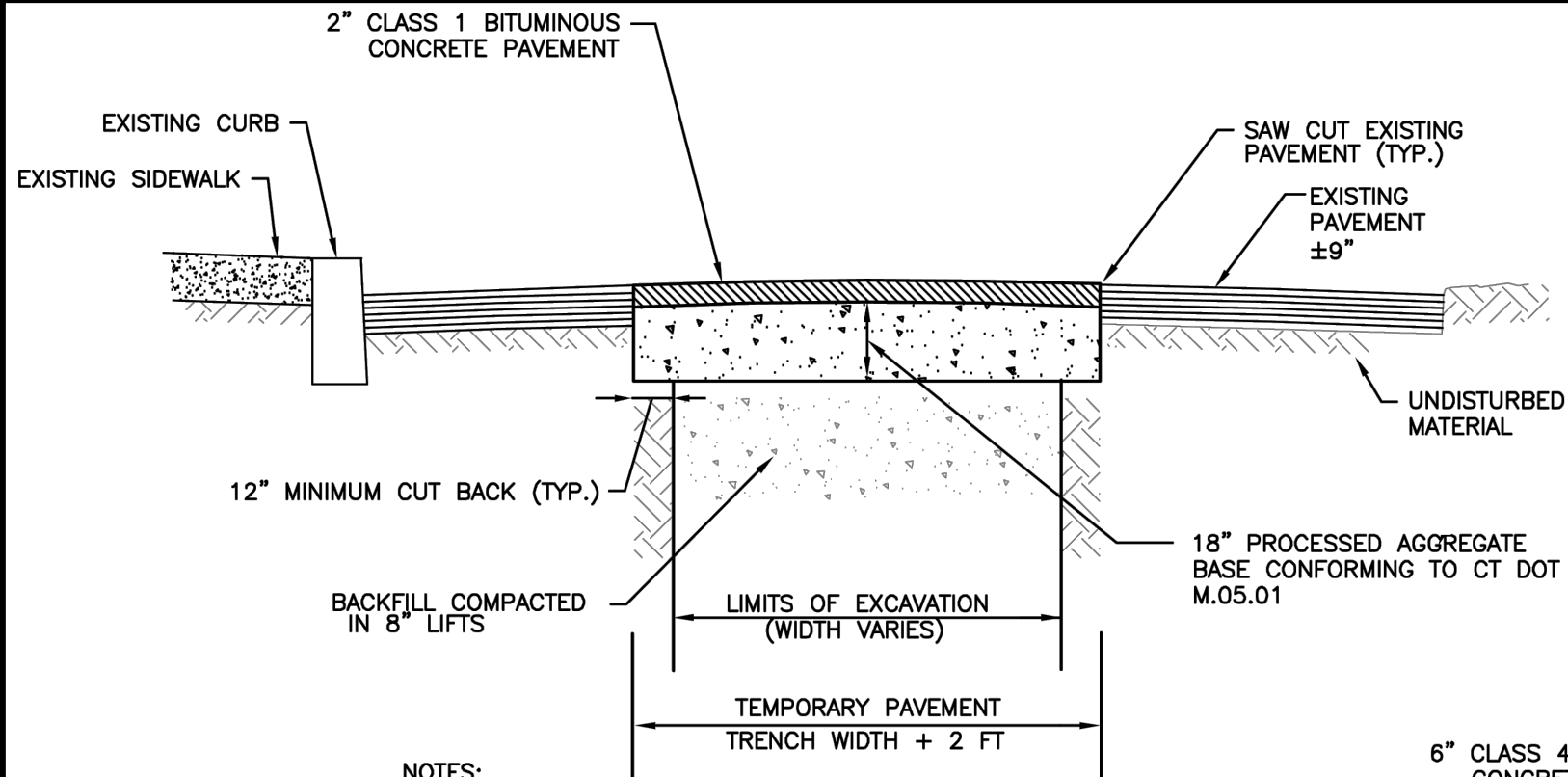


**PAVEMENT RESTORATION WILKINSON STREET AT
OAK STREET**
NOT TO SCALE

NOTES:

1. MINIMUM PAVEMENT THICKNESS TO BE 1-1/2". MAXIMUM PAVEMENT THICKNESS PER COURSE NOT TO EXCEED 3 INCHES. CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT.
2. PERMANENT PAVEMENT RESTORATION SHALL BE TO THE LIMITS SHOWN ON SHEET C-7.

PAVEMENT RESTORATION FOR TOWN ROADS



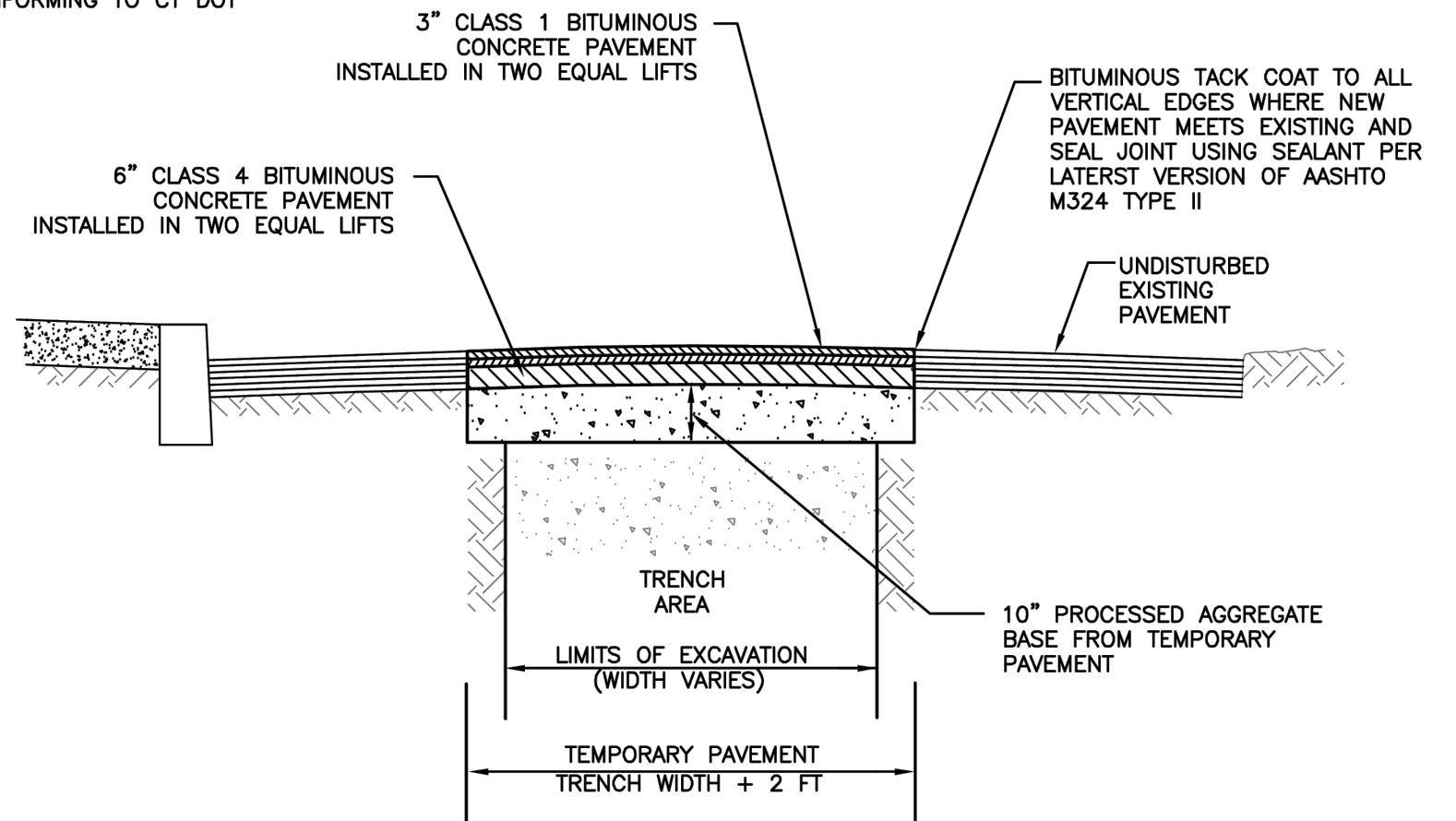
NOTES:

1. CUT BACK DISTANCES SHALL BE AS DIRECTED BY THE ENGINEER, HOWEVER UNDER NO CIRCUMSTANCES LESS THAN THE MINIMUM INDICATED.
2. A 10' CUT BACK IS REQUIRED FOR TRENCHES PERPENDICULAR TO EDGE OF PAVEMENT.
3. ONCE THE 9" PERMANENT TRENCH PAVEMENT IS COMPLETE, THE TRENCH WIDTH WILL BE COLD PLANNED TO A DEPTH OF 2" AND PAVED WITH 2" CLASS 1 BITUMINOUS SURFACE COURSE FROM CURB LINE TO CROWN OF ROAD.

2" TEMPORARY PAVEMENT (TRENCH WIDTH) RESTORATION
TRENCH PARALLEL TO EDGE OF PAVEMENT STATE ROADS

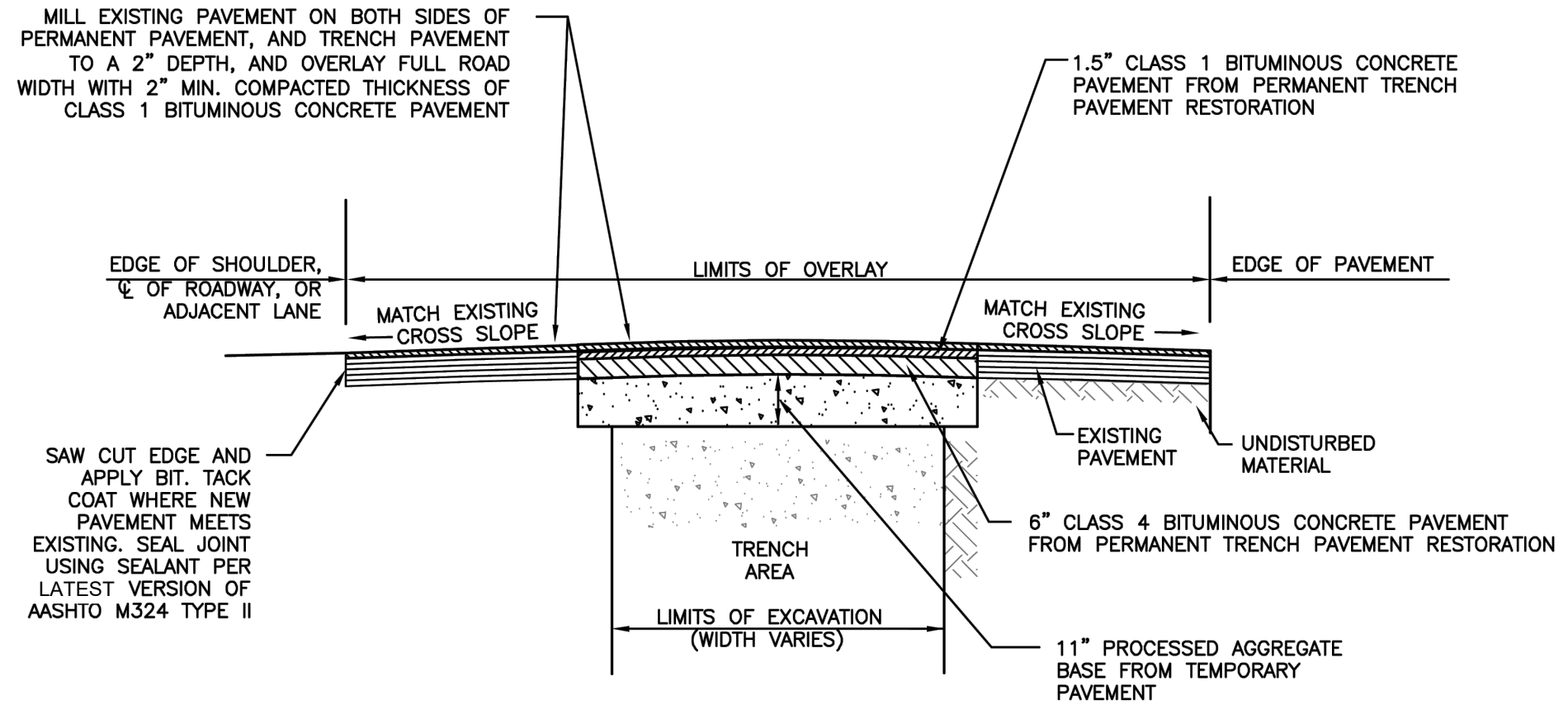
NOT TO SCALE

PAVEMENT RESTORATION FOR STATE ROADS



9" PERMANENT PAVEMENT RESTORATION
TRENCH PARALLEL TO EDGE OF PAVEMENT

NOT TO SCALE



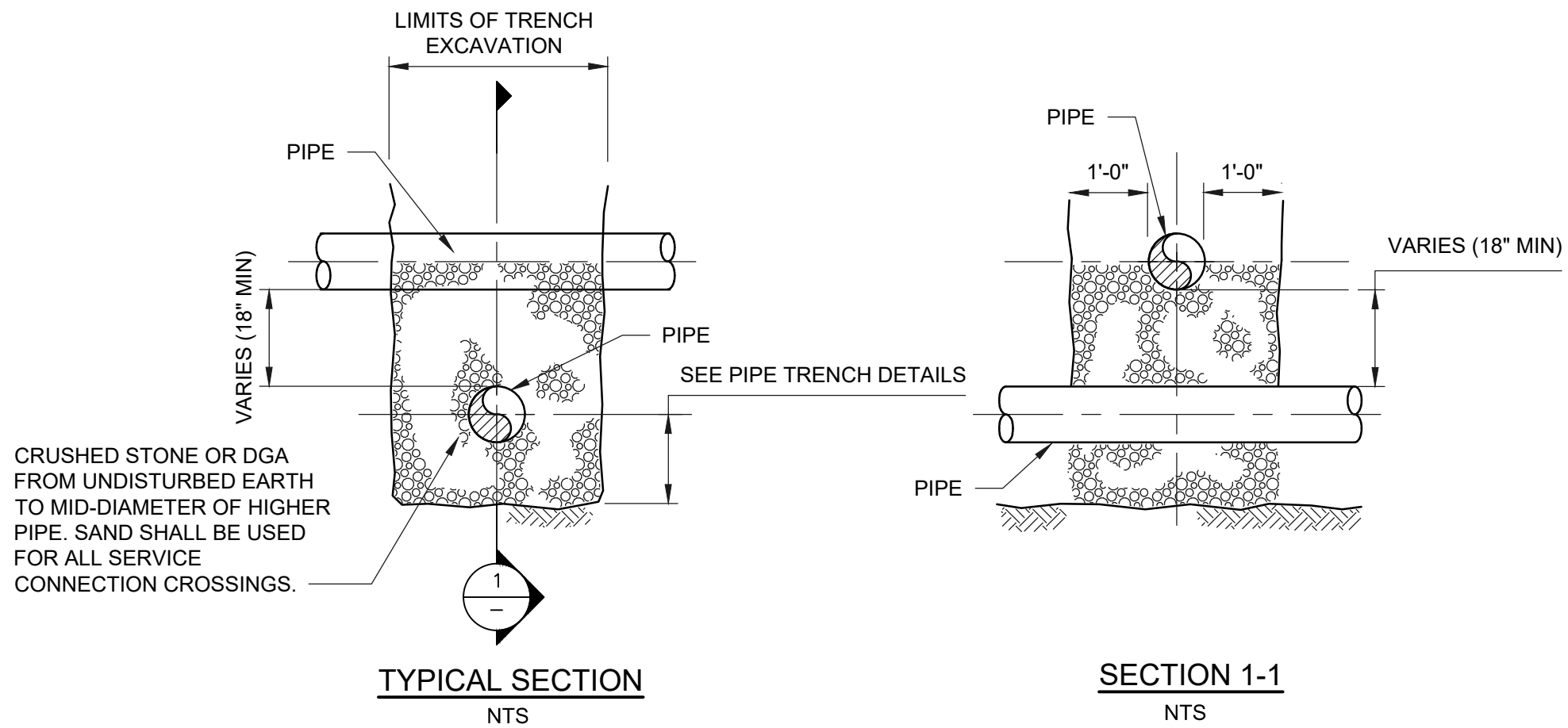
NOTES:

1. THE TRENCH WIDTH WILL BE COLD PLANNED TO A DEPTH OF 2" AND PAVED WITH 2" CLASS 1 BITUMINOUS SURFACE COURSE FROM CURB LINE TO CENTERLINE OF ROADWAY.
2. MINIMUM PAVEMENT THICKNESS TO BE 1-1/2 INCHES. MAXIMUM PAVEMENT THICKNESS PER COURSE NOT TO EXCEED 3 INCHES. CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT.

COLD PLANNING AND 2" OVERLAY
TRENCH PARALLEL TO EDGE OF PAVEMENT

NOT TO SCALE

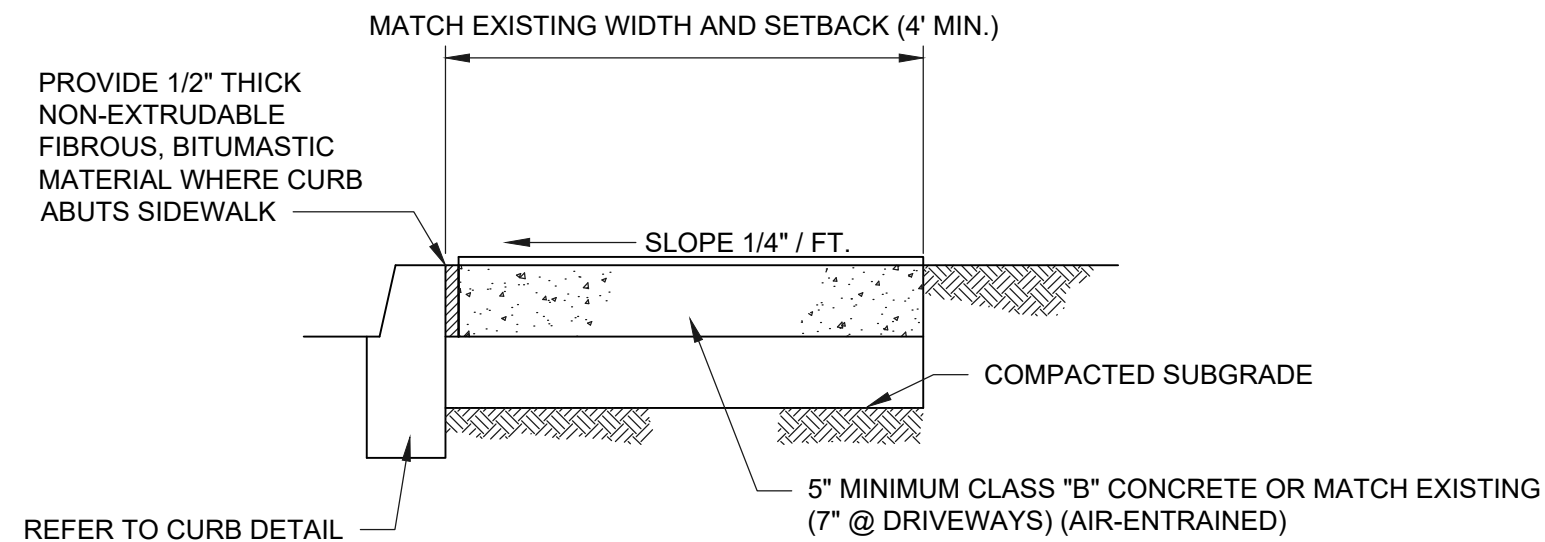
PAVEMENT RESTORATION FOR STATE ROADS



NOTES:

1. CONTRACTOR SHALL PROTECT EXISTING UTILITIES, AND SHALL BRACE AND SUPPORT THE UTILITIES PROPERLY TO PREVENT SETTLEMENT, DISPLACEMENT, OR DAMAGE TO THE UTILITIES. CONTRACTOR SHALL ALSO MEET SPECIAL REQUIREMENTS FOR UTILITIES IDENTIFIED HEREIN. THE CONTRACTOR SHALL LIMIT THE EXTERNAL LOADING ON EXISTING UTILITIES CAUSED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL USE CRANE PADS OR TIMBER PADS TO DISTRIBUTE EQUIPMENT LOADS. THE CONTRACTOR SHALL VERIFY ACCEPTABLE LOADING FOR EXISTING UTILITIES PRIOR TO STAGING EXTERNAL LOADS ON THE SITE.

UTILITY CROSSING DETAIL
NTS



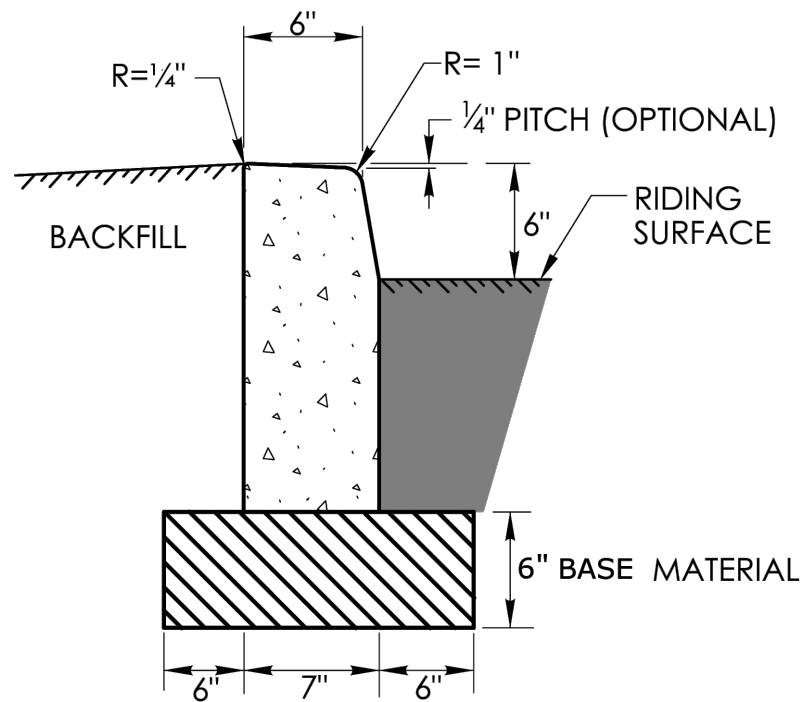
NOTES:

1. FOLLOW LOCAL MUNICIPAL REQUIREMENTS FOR SIDEWALK RESTORATION.
2. SIDEWALK TO BE REMOVED TO LIMITS OF EXISTING FALSE JOINTS. PROVIDE EXPANSION JOINTS BETWEEN NEW AND EXISTING SIDEWALKS.
3. CONTRACTOR SHALL TEMPORARILY USE COLD PATCH FOR CONCRETE SIDEWALK REPLACEMENT OVER BACKFILLED EXCAVATED AREAS. FINAL CONCRETE SIDEWALK SHALL BE INSTALLED NO LESS THAN 45 DAYS AFTER THE TEMPORARY COLD PATCH SIDEWALK IS INSTALLED ALLOWING TIME FOR THE BACKFILL TO SETTLE.

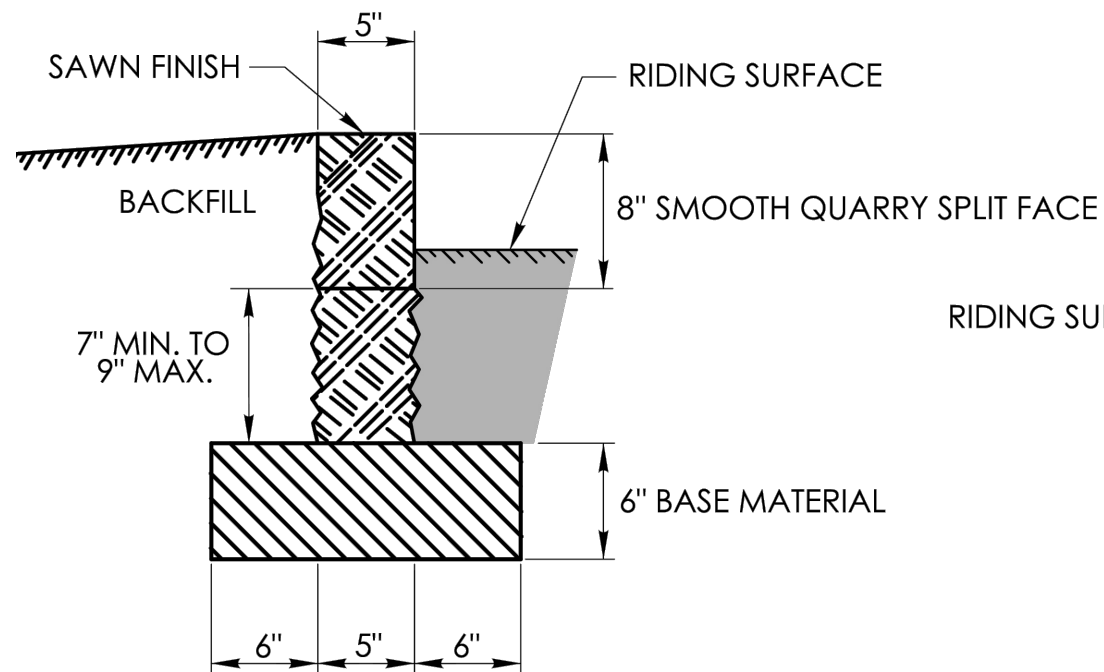
CONCRETE SIDEWALK

NTS

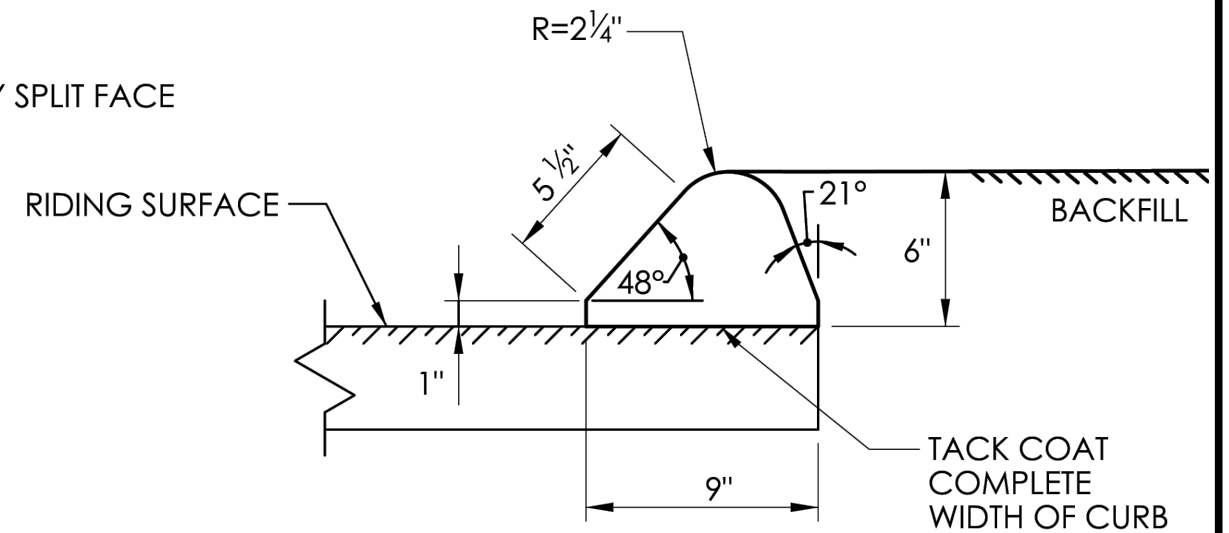
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CONCRETE CURBING
NTS



STONE CURBING
NTS

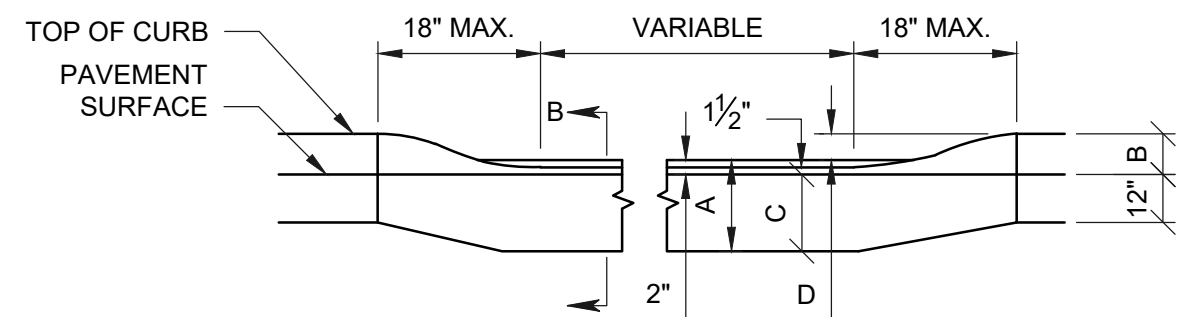


TYPICAL BITUMINOUS CURB
NTS

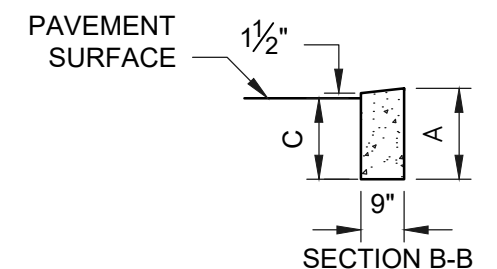
NOTES:

1. FULL CURB CROSS SECTIONAL DIMENSIONS SHALL BE MAINTAINED AT ALL DEPRESSED CURB LOCATION, TYP. FOR ALL CURB.
2. PROVIDE EXPANSION JOINT BETWEEN NEW CURB AND EXISTING CURB.
3. FOLLOW STATE REQUIREMENTS FOR SIDEWALK AND CURB RESTORATION.

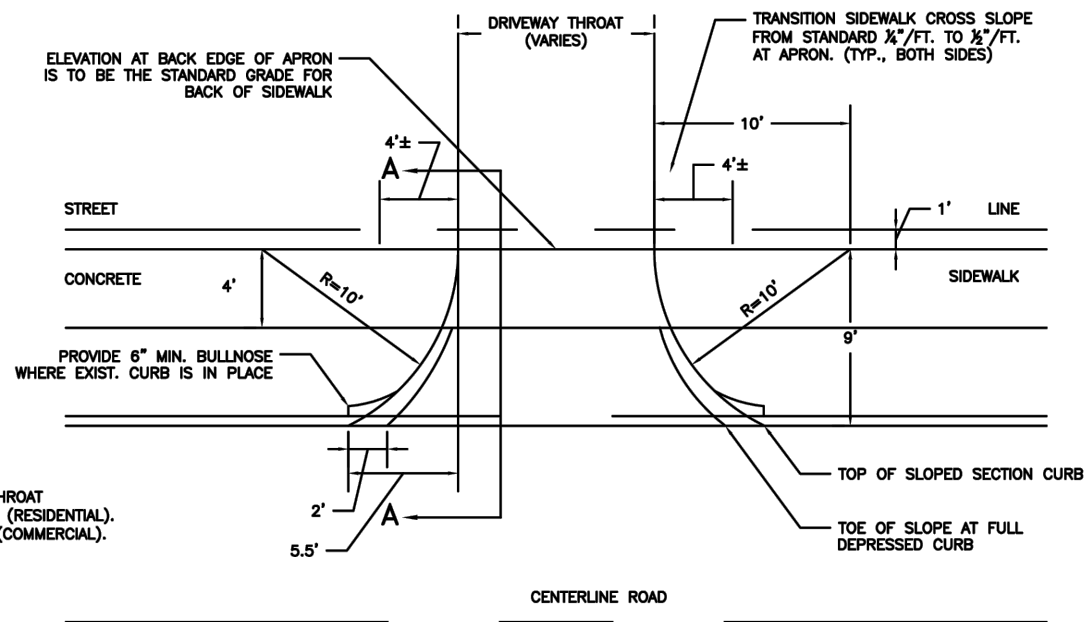
CONCRETE CURB
NTS



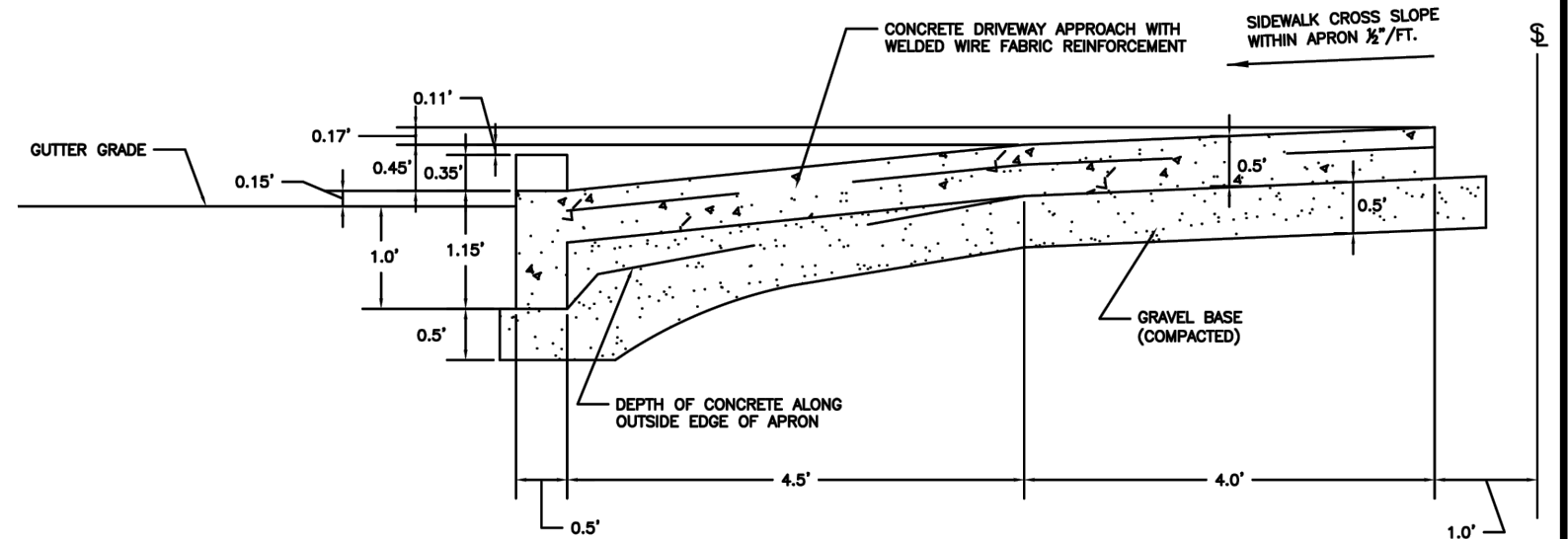
CURB SIZE	DIM. A	DIM. B	DIM. C	DIM. D
9" x 16"	16"	4"	14"	2"
9" x 18"	18"	6"	16"	4"



METHOD OF DEPRESSING CURB AT DRIVEWAYS
NTS



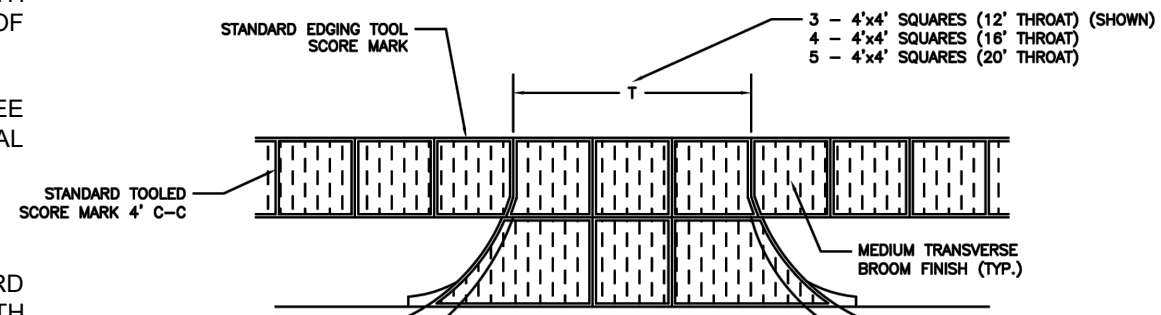
PLAN VIEW
NTS



SECTION A-A
NTS

NOTES:

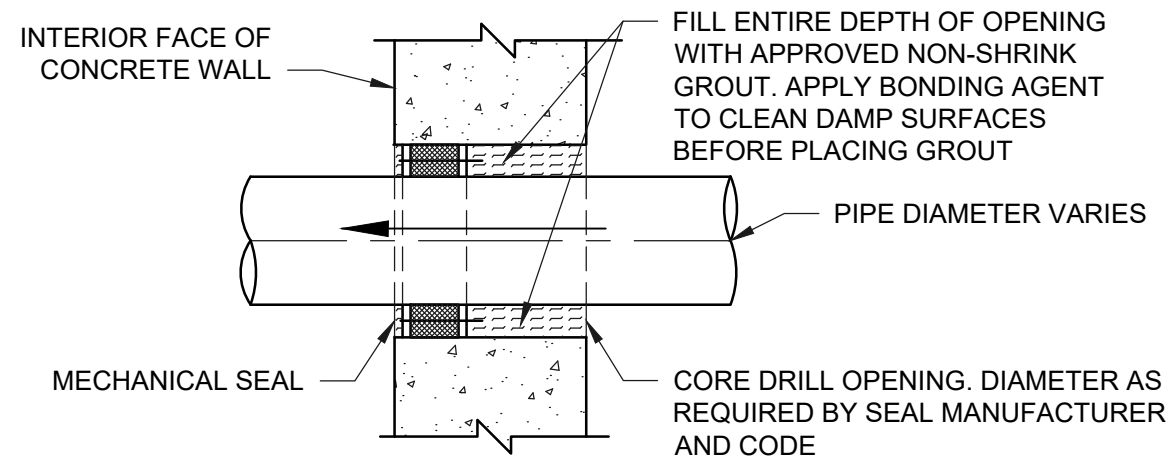
1. FRONT FACE OF APRON CURB IS TO BE FORMED FOR FULL DEPTH OF CURB. REMOVE 12" MIN. WIDTH OF PAVEMENT IN FRONT OF APRON TO PROVIDE ROOM FOR FORMS.
2. FOR DETAILS OF PAVEMENT, CURB, SIDEWALK AND SLOPES SEE DETAIL "TYPICAL CROSS SECTION FOR MINOR RESIDENTIAL STREETS".
3. CONCRETE IS TO BE 4400 PSI MIX.
4. FINISH WITH MEDIUM TRANSVERSE BROOM FINISH AND STANDARD FORM TOOL SCORE MARKS. TOP OF CURB TO BE LEVEL, WITH STEEL TROWEL FINISH AND TOOLED EDGES.
5. REQUIREMENTS FOR BITUMINOUS DRIVEWAY APPROACH APRONS, WHEN PERMITTED BY TOWN ENGINEER, ARE SIMILAR WITH RESPECT TO PLAN DIMENSIONS, REQUIRED ELEVATIONS AND SUBBASE MATERIAL. BITUMINOUS APRONS ARE TO BE CONSTRUCTED WITH A MIN. THICKNESS OF 2-1/2" COMPACTED DEPTH OF ACCEPTABLE BITUMINOUS MATERIAL.



SCORING AND FINISHING
NTS

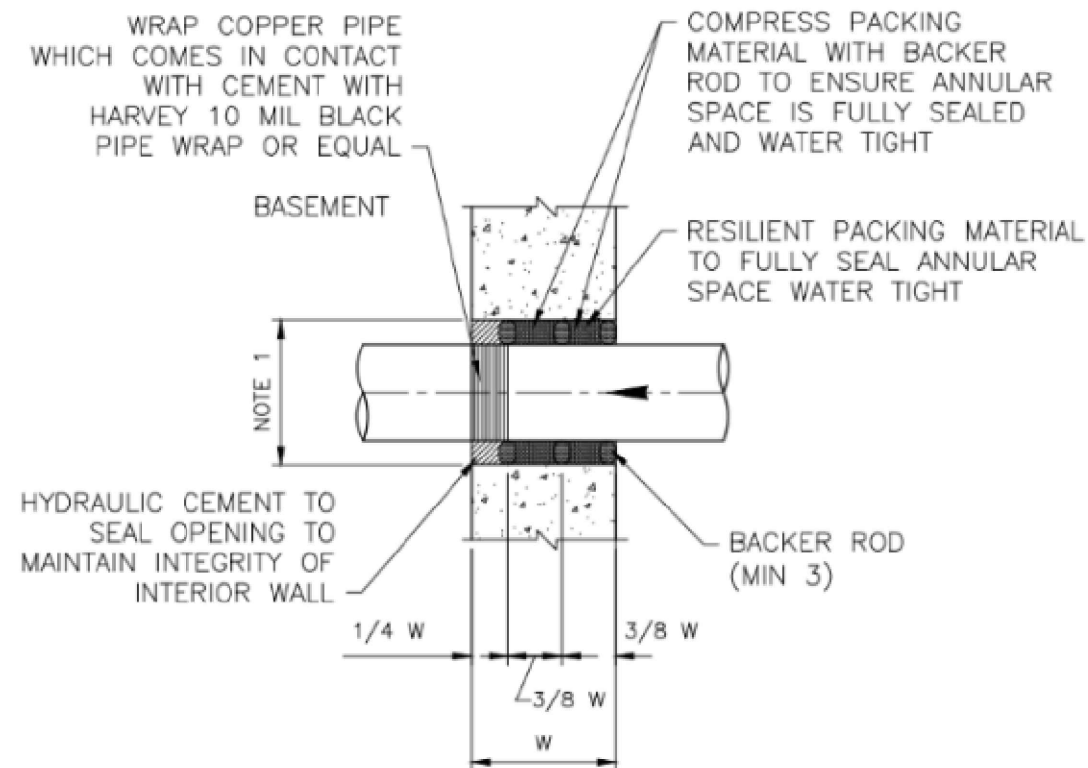
NOTES:

1. THIS DRAWING SUPERSEDES ALL PRIOR VERSIONS. DRAWING MAY BE REVISED WITHOUT PRIOR NOTICE. CONTACT ENGINEERING DEPARTMENT FOR CURRENT VERSION.
2. INFORMATION SHOWN ON THIS DETAIL WAS PREPARED FOR USE BY THE TOWN OF PUTNAM. RESPONSIBILITY FOR REUSE FOR THIS INFORMATION RESIDES WITH THE USER. THE TOWN OF PUTNAM, ITS EMPLOYEES, ASSIGNS OR AGENTS ARE TO BE HELD HARMLESS AGAINST ANY LIABILITY RESULTING FROM ANY OCCURRENCE ASSOCIATED WITH THE REUSE OF THIS INFORMATION. ALTERATION OF THIS STANDARD DETAIL IS STRICTLY UNAUTHORIZED WITHOUT THE APPROVAL OF THE CITY ENGINEER.



CORE DRILLED OPENING AND MECHANICAL SEAL PENETRATION THROUGH EXISTING CONCRETE

NTS

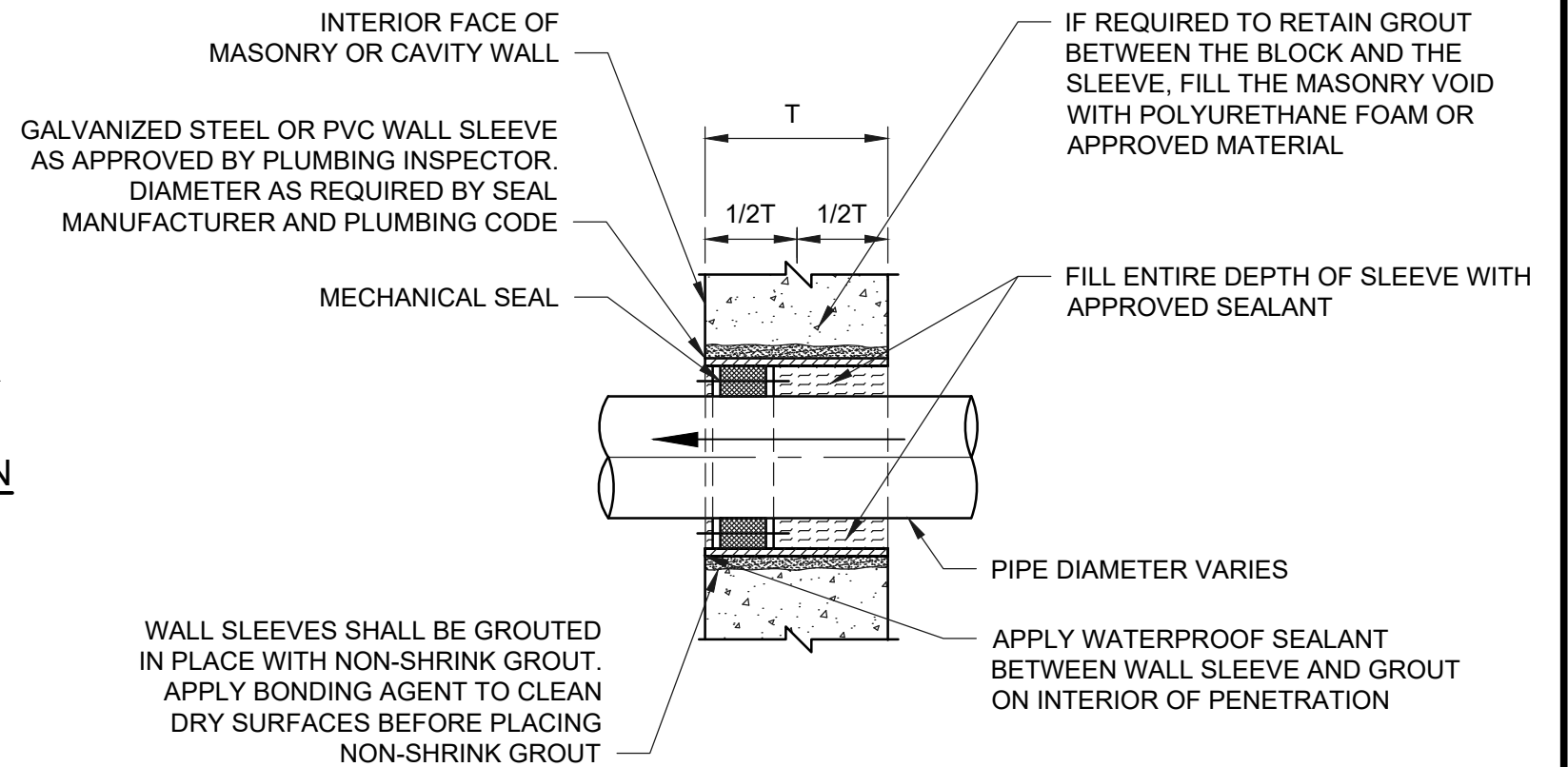


CORE DRILLED OPENING SEAL PENETRATION THROUGH EXISTING CONCRETE

NTS

NOTE:

1. DIAMETER AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

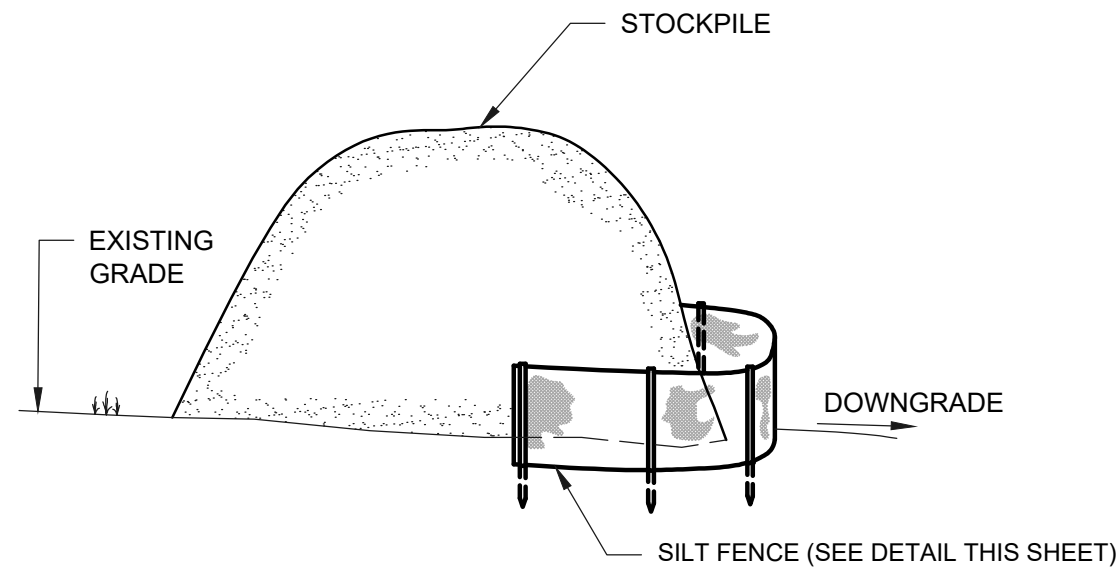


WALL SLEEVE WITH MECHANICAL SEAL FOR MASONRY OR CAVITY WALLS

NTS

NOTES:

1. PIPE PENETRATIONS AND SLEEVE SHALL BE IN ACCORDANCE WITH CONNECTICUT CODE.
2. MECHANICAL SEAL SHALL BE PLACED IN ACCORDANCE TO MANUFACTURES RECOMMENDATION.
3. WHERE PIPE IS INSULATED PIPING, INTERRUPT INSULATION AT BOTH SIDES OF WALL. INSTALL INSULATION FLUSH WITH WALL AFTER WATER TIGHT INSTALLATION OF MECHANICAL SEAL AND NON-SHRINK GROUT.

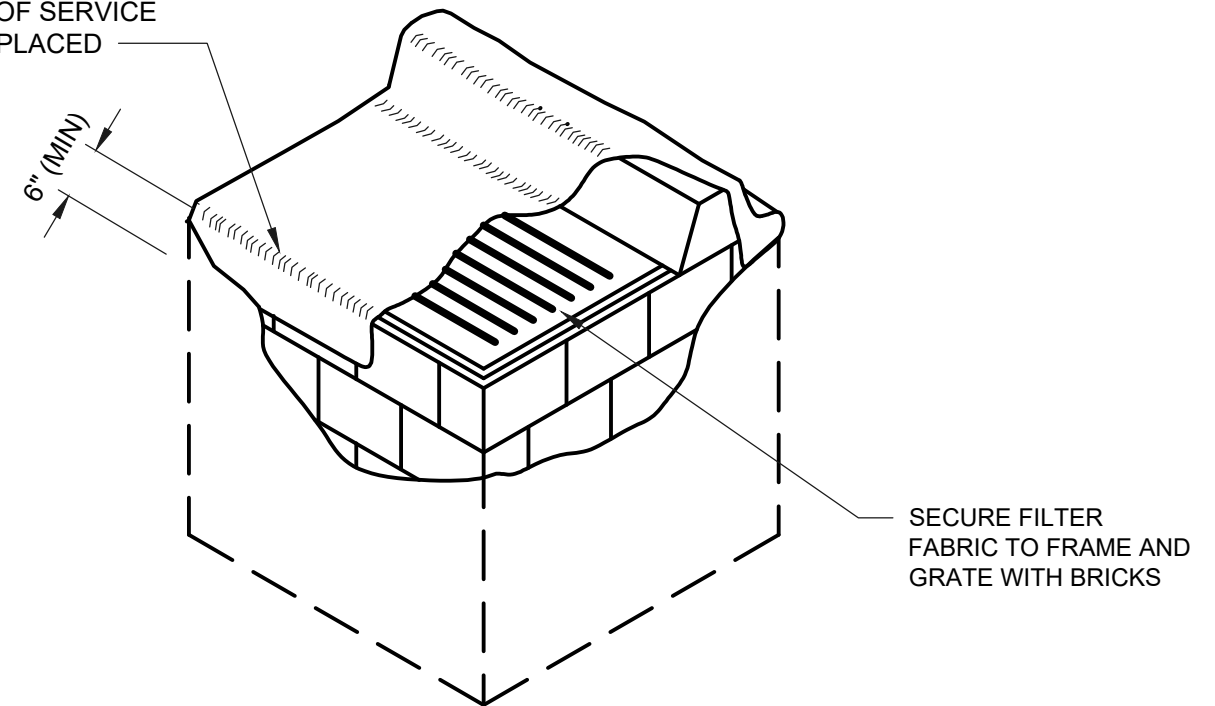


NOTES:

1. CLEAN SOIL SHALL BE SEEDED IMMEDIATELY AFTER STOCKPILING.
2. CONTAMINATED SOIL STOCKPILES SHALL BE PLACED ON LEVEL GROUND WITH PLASTIC SHEETING PLACED ON THE GROUND PROIR TO STOCKPILING THE SOIL.
3. CONTAMINATED STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING. THE PLASTIC SHEETING SHALL BE SECURED BY MEANS OF BRICKS, CINDER BLOCKS OR OTHER ANCHORING DEVICES.
4. CONTAMINATED NON-HAZARDOUS AND HAZARDOUS WASTE SHALL BE STOCK PILE IN ACCORDANCE WITH SPECIFICATION 02113 AND 02130.

TEMPORARY SOIL STOCKPILE
NTS

FILTERS TO BE INSTALLED ON ALL
CATCH BASIN WITHIN 50' OF SERVICE
CONNECTIONS BEING REPLACED

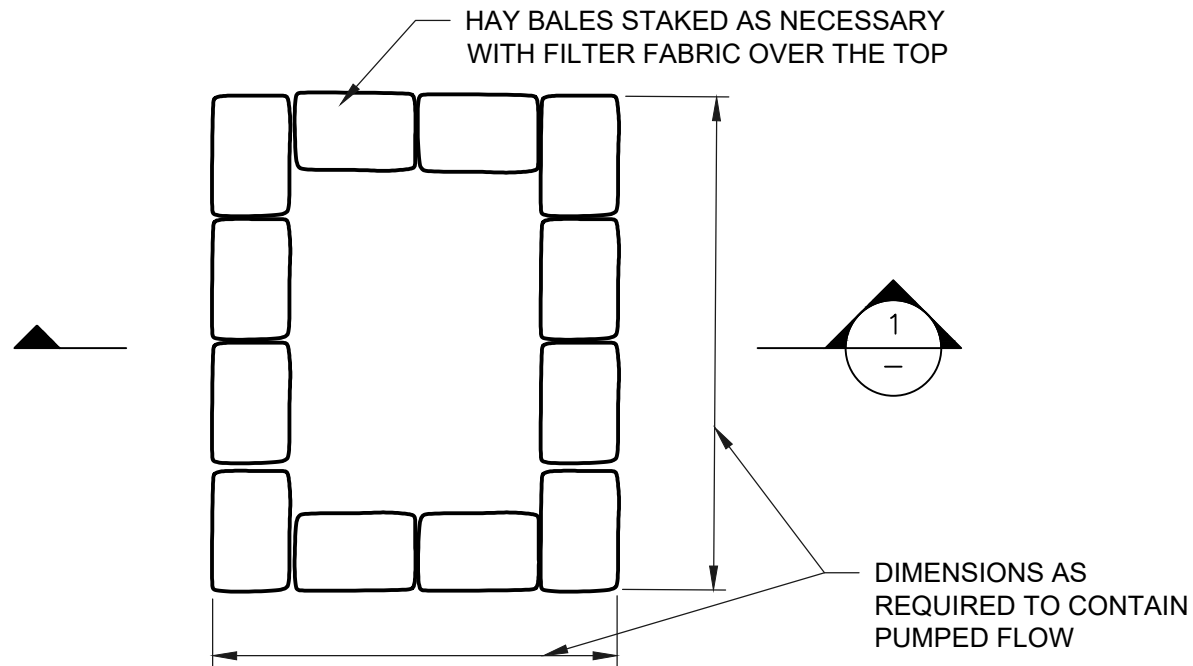


NOTES:

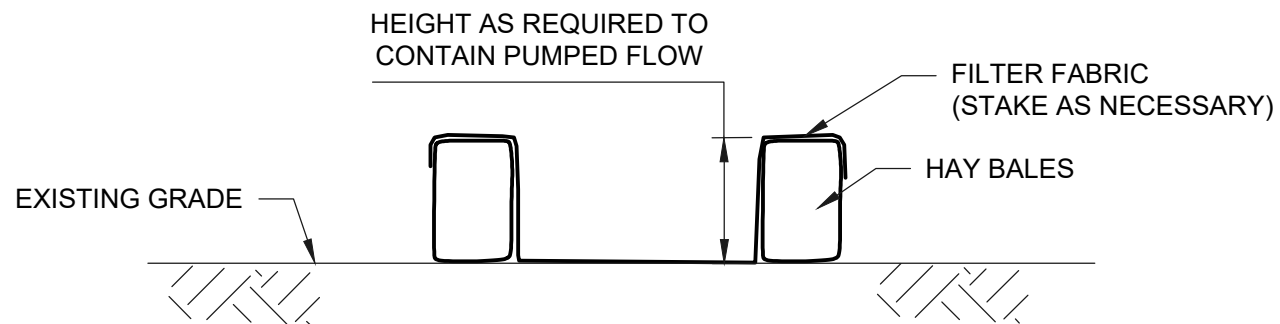
1. CONTRACTOR TO PROVIDE STORM SEWER INLET PROTECTION. FILTER TO BE SILTSACK BY ACF OR EQUAL. DESIGN CRITERIA OF THE INLET PROTECTION SHALL BE AS FOLLOWS
 - MUST SLOW THE STORM WATER, PROVIDE THE COARSE SEDIMENT PARTICLES A CHANCE TO SETTLE, AND PROVIDE AN AREA TO RETAIN THE PARTICLES THAT HAVE SETTLED.
 - IN ALL CASES, INLET PROTECTION SHOULD NOT COMPLETELY CLOSE OFF THE INLET. PROVISION MUST BE MADE TO ALLOW STORMWATER TO OVERFLOW OR BYPASS FILTER.
 - THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.
 - INSPECTIONS SHALL BE FREQUENT, AND AFTER EVERY STORM. MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY.
 - THE CONTRACTOR SHALL INSTALL STORM SEWER INLET PROTECTION IN ACCORDANCE WITH THE LATEST VERSION OF THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL OF CONNECTICUT
2. CONTRACTOR TO REMOVE FABRIC FOLLOWING COMPLETION OF WORK AND ANY RESIDUAL CONSTRUCTION DEBRIS REMOVED FROM CATCH BASIN.

INLET FILTER
NTS

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PLAN
NTS

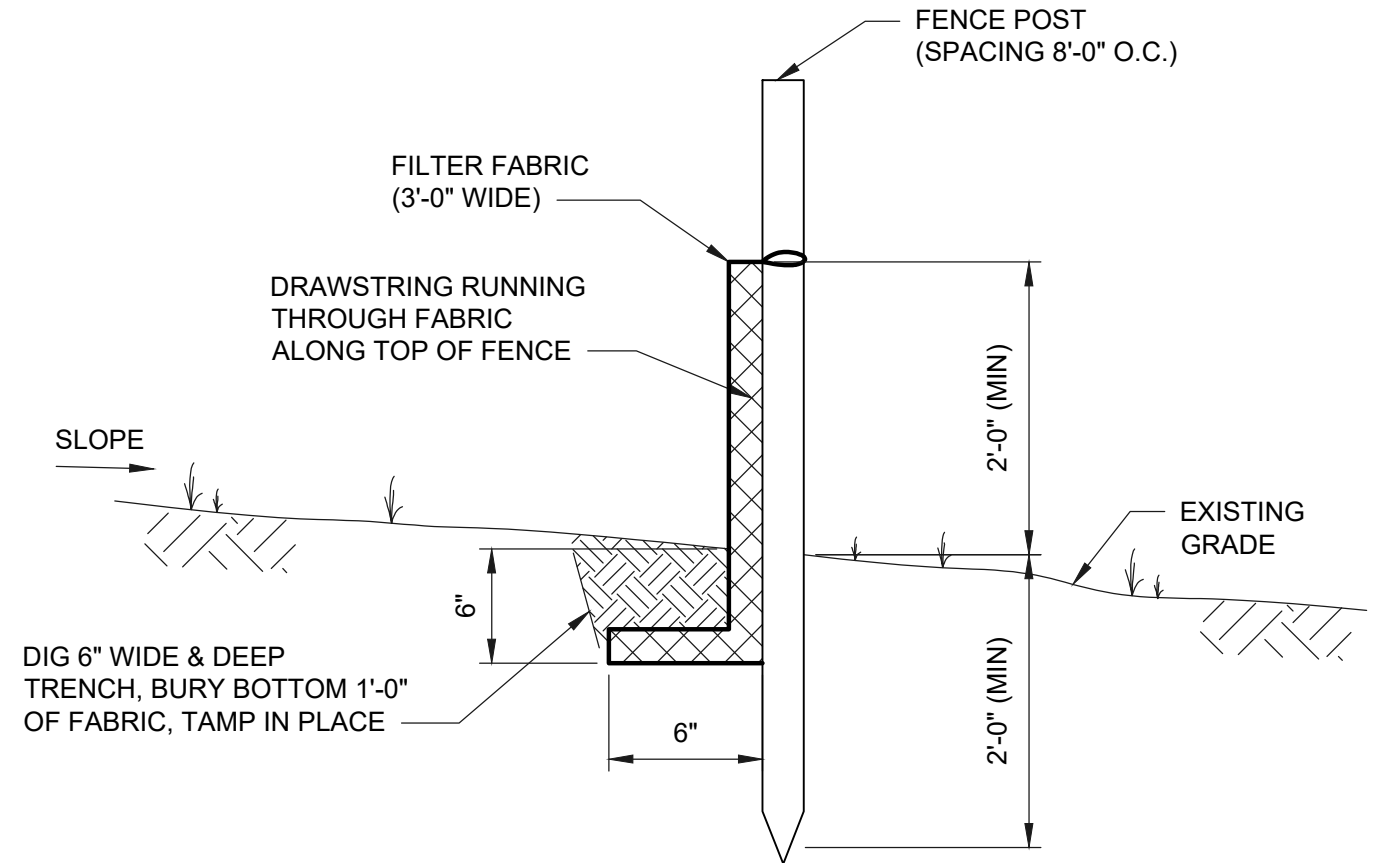


SECTION 1-1
NTS

NOTES:

1. REMOVE SEDIMENT AND CLEAN FILTER FABRIC AS NECESSARY TO MAINTAIN PROPER FUNCTIONING OF THE SEDIMENT TRAP.
2. A PREFABRICATED SILT CONTROL SYSTEM IS AN ACCEPTABLE REPLACEMENT FOR THE SEDIMENT TRAP WHEN PUMPING TO SEWER. THE PREFABRICATED SILT CONTROL SYSTEM SHALL BE A FABRIC BAG THAT CONNECTS TO THE DISCHARGE OF THE PUMP. PREFABRICATED SILT CONTROL SYSTEM SHALL BE "DIRTBAG" BY ACF ENVIRONMENTAL, OR APPROVED EQUAL.

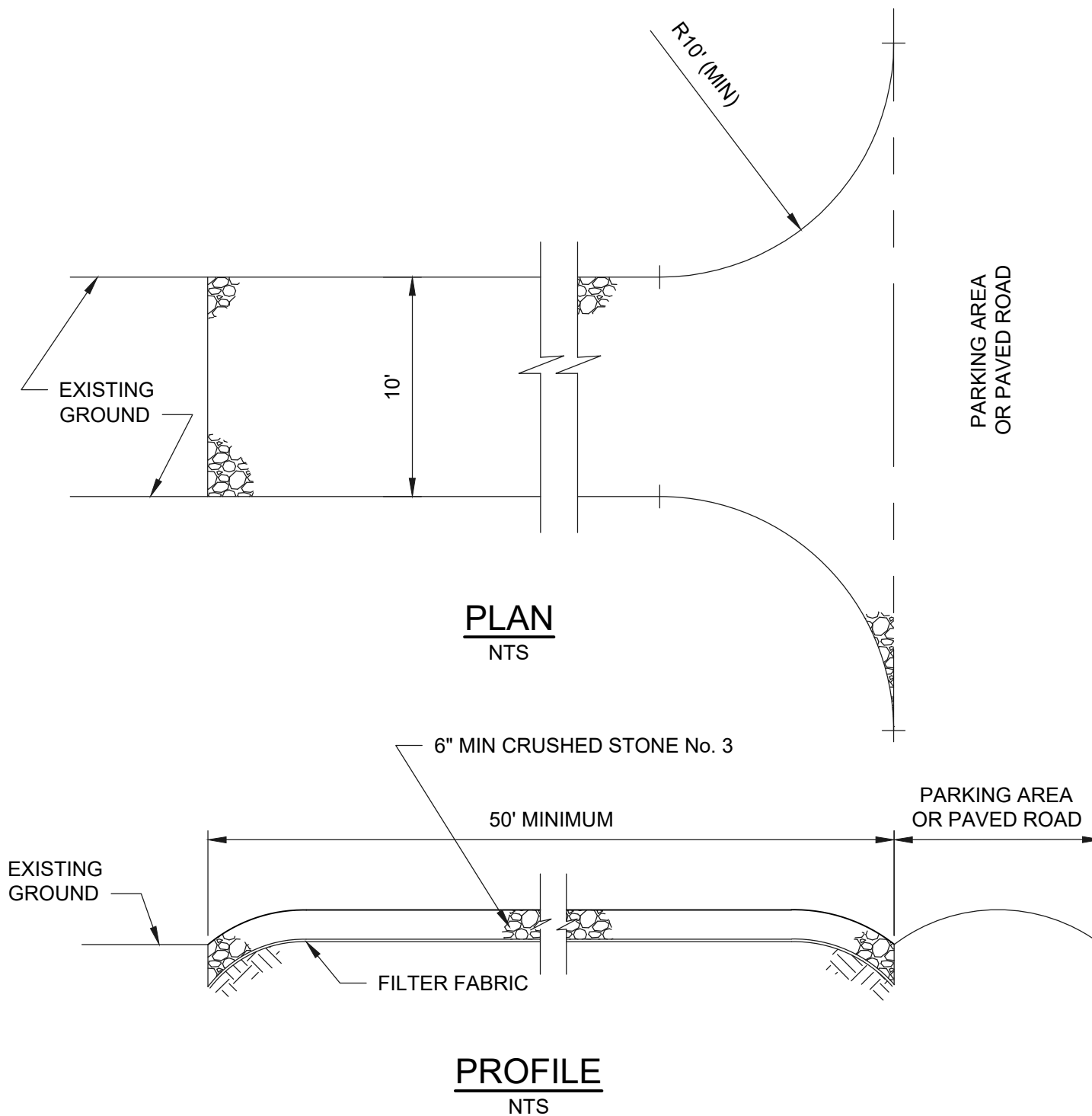
SEDIMENT TRAP FOR WATER PUMPED FROM EXCAVATIONS
NTS



NOTE:

ALL SILT FENCE WILL BE INSPECTED AND REMEDIAL MAINTENANCE PERFORMED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH RAIN.

SILT FENCE
NTS

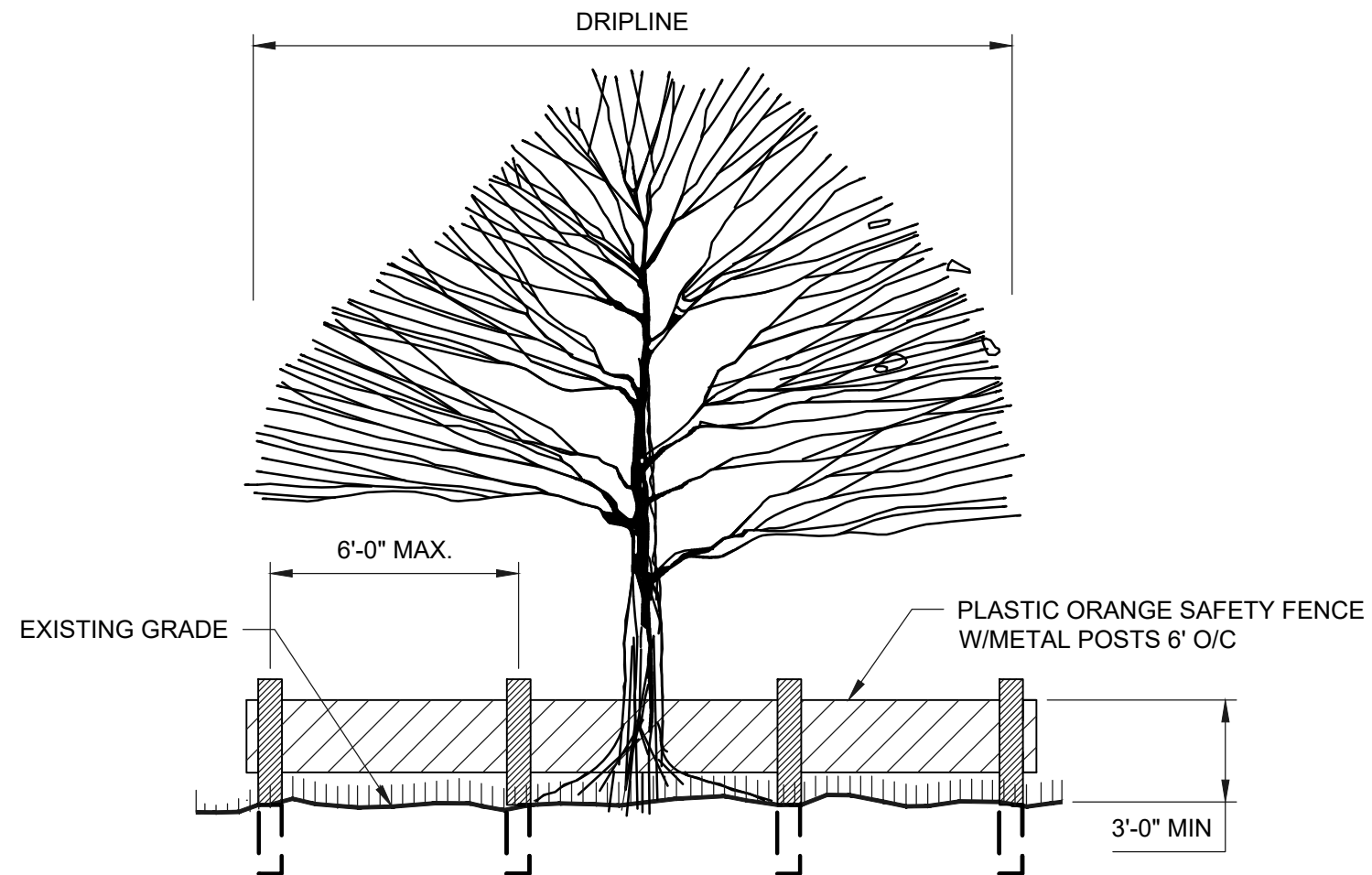


NOTE:

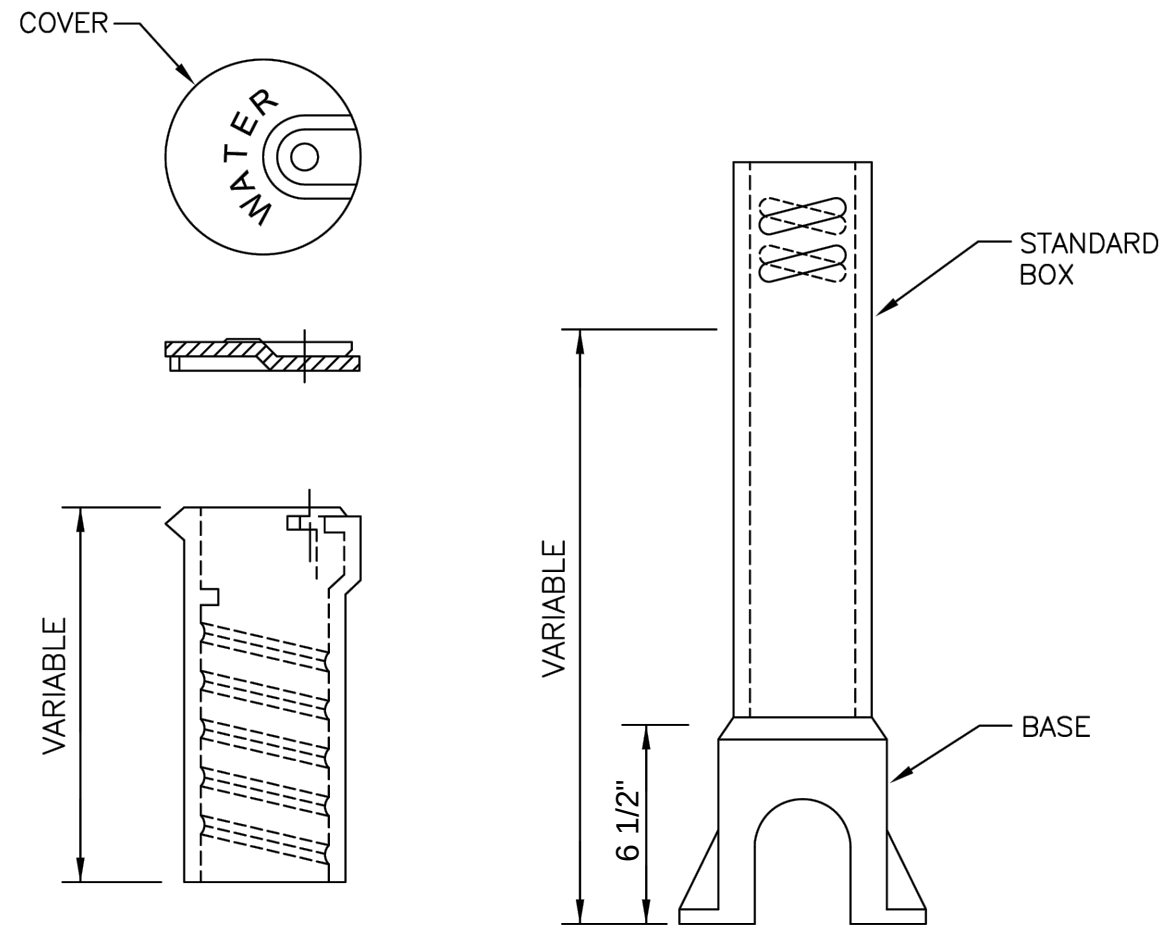
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PAVED AREA. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PAVED AREA. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADS OR PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE FOR STAGING AREAS

NTS



PROTECTION OF EXISTING TREE
NTS



NOTE:

1. REFER TO SPECIFICATION 02663.

STANDARD SERVICE CURB BOX
NTS



Appendix C Replacement Agreement

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- Provide access to the contractor and a safe work area, including space around where the service line enters the basement.
- Maintain the new service line after installation.

Your Choices

Please choose one:

- ☐ YES, I want WPCA to replace my galvanized service line for free.
- ☐ NO, I do not want WPCA to replace my galvanized service line.

If You Choose YES

Please fill out and sign below

By signing this form, you:

- Allow WPCA and its contractor to enter your property and do the work.
- Agree that WPCA is **not responsible** for any damage to your property, except for damage caused by the contractor during the replacement.
- Understand that if there are electrical or plumbing issues in your home, you must fix them before work can begin.
- Agree that after installation, you are responsible for maintaining the new pipe, including any future repairs or replacements.

I, the undersigned, by signing, I am certifying that I am the property owner or property owner representative who can make legal decisions about this property, and I **choose to replace** the portion of the galvanized service line I own through the WPCA replacement program. I hereby release and forever discharge WPCA, its employees, and legal representative (collectively the “WPCA”) from all liability for injury, death, damage, or loss to persons, real property, or personal property in connection with the performance of the galvanized service line replacement.

- Name (Property Owner/Authorized Tenant): _____
- Property Address: _____
- Mailing Address: _____
- Phone Number: _____ Email Address: _____

Signature: _____ **Date:** _____

If You Choose NO

Please fill out and sign below

If you do not want WPCA to replace your service line:

- You understand this is a one-time, free offer based on State funding.
- Future replacement will be your responsibility and cost.
- Please tell us why you are declining (optional):
 - ☐ I am not concerned about lead in drinking water.
 - ☐ I want to hire my own contractor.
 - ☐ Other (please explain): _____
- Printed Name (Property Owner/Authorized Tenant): _____
- Phone Number (optional): _____

Signature: _____ **Date:** _____

How to Return This Form

- **Scan and email to:** PutnamCT-LSLR@cdmsmith.com
- **Or mail to:** CDM Smith 101 East River Drive, Suite 1A East Hartford, CT 06108

Thank You

Your feedback is important to us. Please contact WPCA at 860-407-6090 or PutnamCT-LSLR@cdmsmith.com if you have any questions about this program.



Appendix D Daisy Chain Replacement Information and Sketches

Additional information can be found in Section 01025 Measurement and Payment.

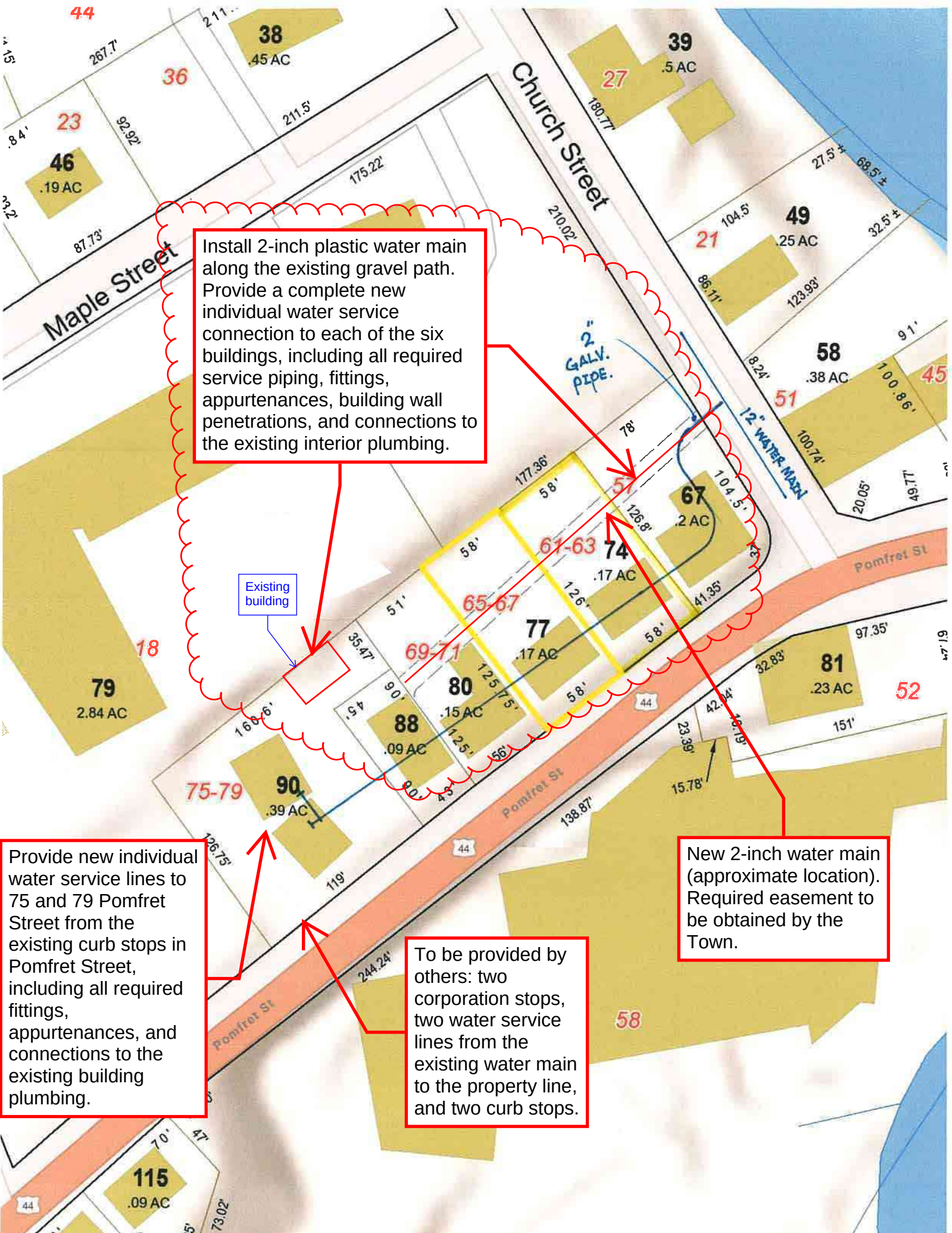
GENERAL NOTE:

THESE SKETCHES ARE SCHEMATIC AND ARE PROVIDED FOR GENERAL GUIDANCE ONLY. LOCATIONS AND ROUTING SHOWN ARE APPROXIMATE AND DO NOT IDENTIFY THE FINAL SERVICE ALIGNMENT, CURB STOP LOCATION, BUILDING PENETRATION, OR CONNECTION POINT TO THE EXISTING INTERIOR PLUMBING.

THE CONTRACTOR SHALL FIELD-VERIFY EXISTING CONDITIONS, DIMENSIONS, UTILITIES, AND POTENTIAL CONFLICTS AND SHALL COORDINATE THE PROPOSED WORK WITH THE PROPERTY OWNER. THE CONTRACTOR SHALL PREPARE DETAILED SERVICE CONNECTION SKETCHES SHOWING THE PROPOSED SERVICE ALIGNMENT, CURB STOP LOCATION, BUILDING PENETRATION, AND CONNECTION TO THE INTERIOR PLUMBING.

THE DETAILED SERVICE CONNECTION SKETCHES SHALL BE SUBMITTED TO THE ENGINEER AND OWNER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. SUCH REVIEW AND APPROVAL SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ACCURACY, FIELD CONDITIONS, CONSTRUCTABILITY, CODE COMPLIANCE, OR PROPER INSTALLATION.

Address			Daisy Chain Replacement Work To Be Done
57 POMFRET ST	Putnam	06260	<p>Properties require a new 2" plastic water main estimated to be 275 feet long. At the end of the water main will be a fire hydrant and all necessary fittings.</p> <p>Each property will get a new full service including new corp stop, curb stop, and fittings to connect into the home. Service line lengths are estimated as:</p> <p>57 Pomfret: 75 ft</p>
61-63 POMFRET ST (63)	Putnam	06260	61-63 Pomfret: 70 ft
65-67 POMFRET ST	Putnam	06260	65-67 Pomfret: 70 ft
69-71 POMFRET ST	Putnam	06260	69-71 Pomfret: 70 ft
73 POMFRET ST	Putnam	06260	73 Pomfret: 75 ft
75-79 POMFRET ST (3) - Shed	Putnam	06260	80 ft
75-79 POMFRET ST (1)	Putnam	06260	110 ft
75-79 POMFRET ST (2)	Putnam	06260	100 ft
332 SO MAIN ST	Putnam	06260	80 ft
334 1/2 SO MAIN ST	Putnam	06260	150 ft
224 GROVE ST (1)	Putnam	06260	90 ft
224 GROVE ST (2)	Putnam	06260	200 ft
251 CHURCH ST	Putnam	06260	90 ft
255 CHURCH ST	Putnam	06260	90 ft
335 KENNEDY DR	Putnam	06260	<p>Recommend reusing existing copper service line as private water main. Include a fire hydrant with necessary fittings.</p> <p>With the water main, service line lengths will be:</p> <p>335 Kennedy: 60 ft</p>
333 KENNEDY DR	Putnam	06260	333 Kennedy: 120 ft
48-50 BATTEY ST (1)	Putnam	06260	45 ft
48-50 BATTEY ST (2)	Putnam	06260	65 ft
330 CHURCH ST	Putnam	06260	120 ft



Install 2-inch plastic water main along the existing gravel path. Provide a complete new individual water service connection to each of the six buildings, including all required service piping, fittings, appurtenances, building wall penetrations, and connections to the existing interior plumbing.

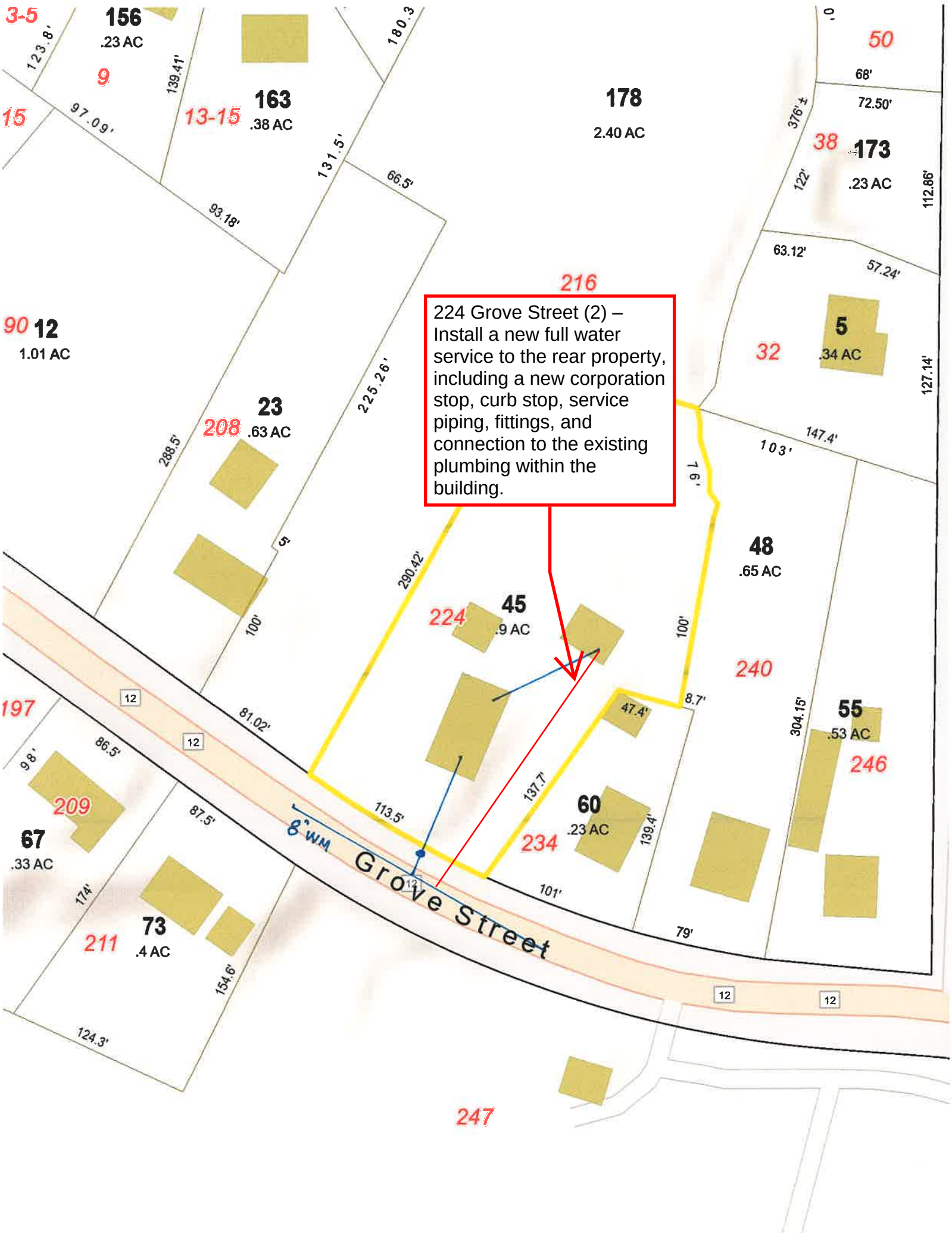
Existing building

Provide new individual water service lines to 75 and 79 Pomfret Street from the existing curb stops in Pomfret Street, including all required fittings, appurtenances, and connections to the existing building plumbing.

To be provided by others: two corporation stops, two water service lines from the existing water main to the property line, and two curb stops.

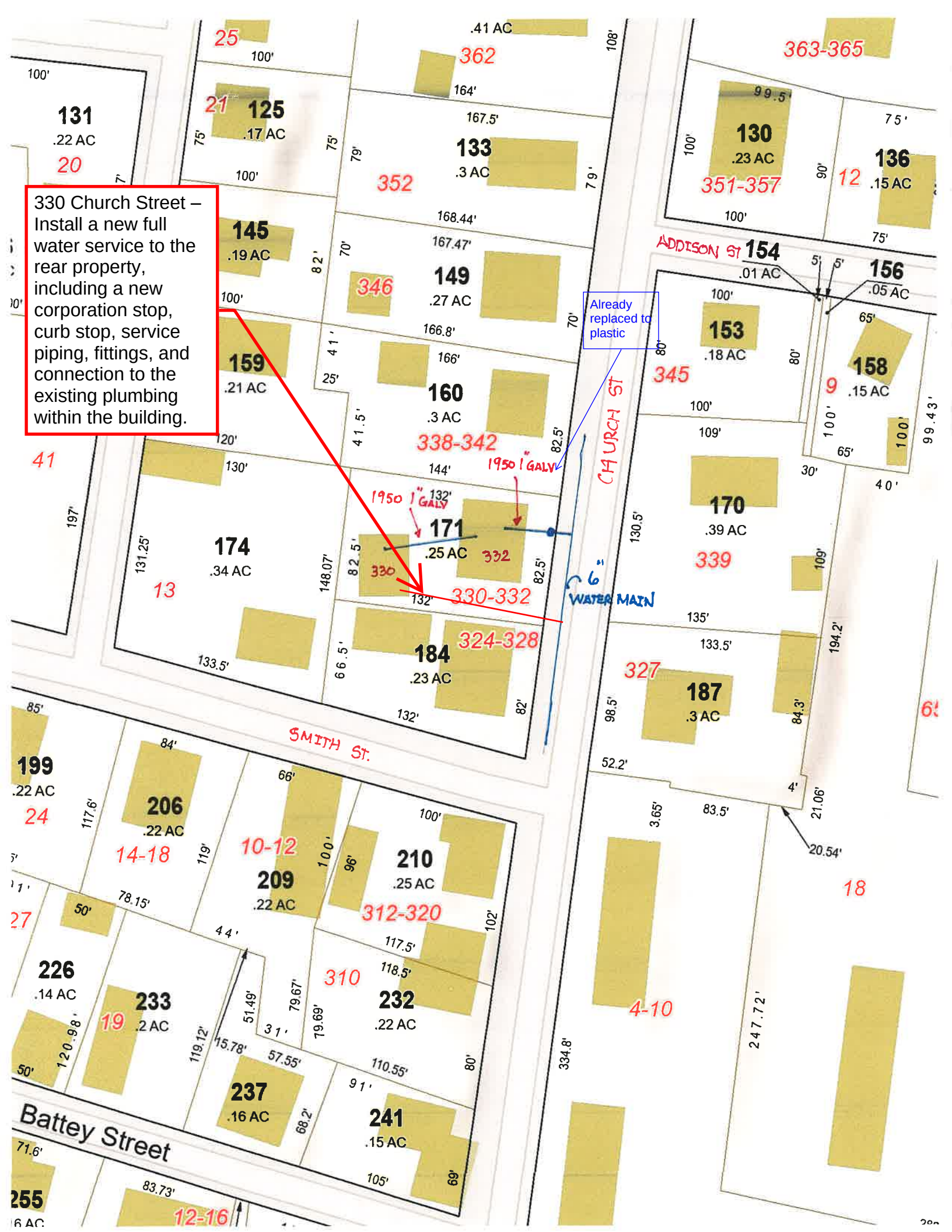
New 2-inch water main (approximate location). Required easement to be obtained by the Town.

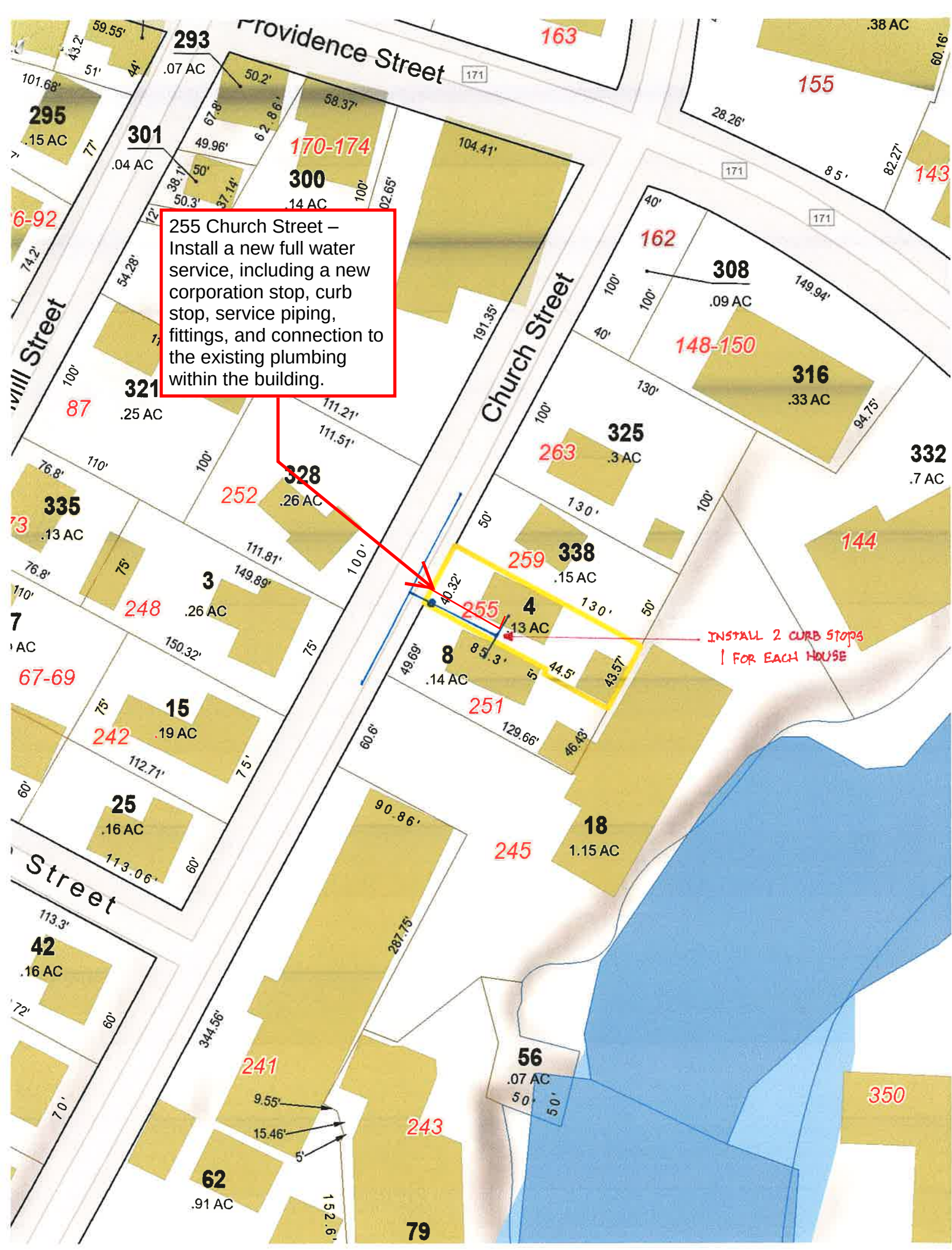
Batley Street

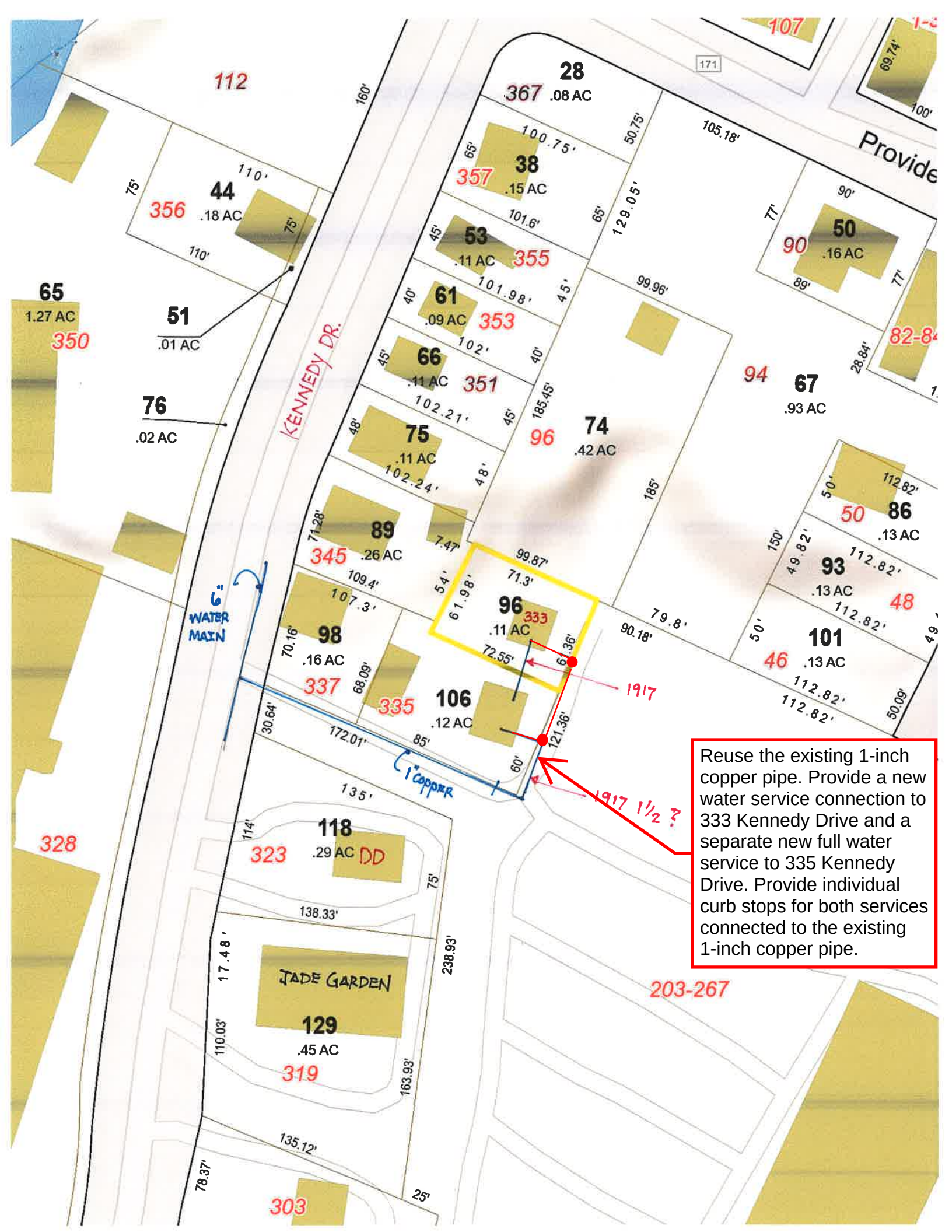


334½ South Main Street
– Install a new water service line from the existing curb stop to the rear property, including all required service piping and fittings necessary to connect to the existing plumbing within the building.

330 Church Street –
Install a new full
water service to the
rear property,
including a new
corporation stop,
curb stop, service
piping, fittings, and
connection to the
existing plumbing
within the building.







Reuse the existing 1-inch copper pipe. Provide a new water service connection to 333 Kennedy Drive and a separate new full water service to 335 Kennedy Drive. Provide individual curb stops for both services connected to the existing 1-inch copper pipe.

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