

**TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT**

NOTICE OF BID

**Frederick Street - Water Main Replacement
Watertown Water and Sewer Authority**

Sealed bids are invited and will be received by the Purchasing Agent of the Town of Watertown at the office of the Purchasing Agent, Watertown Town Hall, 61 Echo Lake Road, Watertown, Connecticut, until **11:00 a.m., Tuesday, September 27, 2022**, at which time and place they will be publicly opened and read aloud for furnishing all labor, materials and equipment to complete the Frederick Street Water Main Replacement project to the Town of Watertown Water and Sewer Authority.

The Information for Bidders, Form of Bid, Specifications and other contract documents may be obtained or examined at the office of the Purchasing Agent, Watertown Town Hall, 61 Echo Lake Road, Watertown, Connecticut 06795 or by accessing the Town of Watertown's website at <http://www.watertownct.org>.

To receive consideration, bids must be in the hands of the Purchasing Agent or the authorized representative no later than the day and hour mentioned above. Proposals must be submitted on the forms provided and in a sealed envelope plainly marked **"Bid – Frederick Street Water Main Replacement."**

The Purchasing Agent reserves the right to accept or reject any or all bids; to waive any informality; or to accept any bid deemed in the best interests of the Town of Watertown.

The Town of Watertown reserves the right to take into account the residency of bidders within the Town of Watertown and/or the location of the bidder's business within the Town of Watertown in awarding this bid.

All bids will be considered valid for a period of sixty (60) days.

Donna L. Ford
Purchasing Agent
Town of Watertown

INFORMATION FOR BIDDERS
TOWN OF WATERTOWN

WATERTOWN, CONNECTICUT 06795
Frederick Street - Water Main Replacement

Watertown Water and Sewer Authority

BID OPENING: 11:00 a.m., Tuesday, September 27, 2022

PROPOSALS RECEIVED

All bids must be in a sealed envelope and received prior to **11:00 a.m., Tuesday, September 27, 2022**, at the office of the Purchasing Agent, Watertown Town Hall 61 Echo Lake Road, Watertown, Connecticut 06795.

PREPARATION OF PROPOSALS

Proposals must be made upon forms contained herein. The blank spaces in the Proposal must be filled in correctly where indicated. The Bidder must state the prices for which he proposes to do each item of the work contemplated. In case of discrepancy where both words and the numerals are requested, the words shall govern. Ditto marks are not considered writing or printing and shall not be used. The Bidder shall sign his Proposal correctly. If the Proposal is made by an individual, his name, post office address and telephone number must be shown. If made by a firm, partnership, or corporation, the Proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and must show the post office address and telephone number of the firm, partnership, or corporation. Failure to do so may disqualify the bid.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, post office address, and name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to: The Purchasing Agent, Watertown Town Hall, 61 Echo Lake Road Watertown, CT 06795.

All information shall be entered in ink or by typewriter. Mistakes may be crossed out and corrections inserted before submission of your bid. The person signing the bid shall initial corrections in ink.

Corrections and/or modifications received after the closing time specified will not be accepted.

SUBMISSION OF PROPOSALS

All proposals and literature shall be submitted **IN DUPLICATE** on the proposal form, which is a part of these specifications.

Descriptive literature containing complete specifications must accompany each bid. If a bidder wishes to furnish additional information, more sheets may be added.

Adobe Acrobat® Reader is required to view electronic documents on-line. If you do not have Adobe Acrobat® Reader, you may download it for free from Adobe at <http://www.adobe.com/products/acrobat/readstep.html>.

Response summaries will be available online at <http://www.watertownct.org> on the day of the bid opening.

Responses delivered via fax are received subject to the following qualifications and limitations:

- The Town is not responsible for the confidentiality of the information transmitted.
- The Town cannot guarantee that its fax equipment will be operational and able to receive transmittals by a particular time and date. It is the Bidder's responsibility to ensure that quotations are received in their entirety and on time at the required location. It is recommended that vendors be advised to call immediately after transmitting a document electronically to confirm complete and accurate receipt by the Town. The Town assumes no liability in the event that a bidder's electronic transmission is not received by the Town in a timely fashion, or is not received either in its entirety or error-free.
- Bids transmitted electronically which have a bond requirement are subject to the same submittal requirements as those responses delivered via traditional means, such as mail or hand delivery, or as otherwise stipulated by appropriate authority.

INCURRING COSTS

The Town of Watertown is not liable for any cost incurred for the preparation of proposals or submission of samples by the firms submitting proposals for the work requested in this bid document or request for proposals.

FAMILIARITY WITH THE WORK

Each bidder is considered to have examined the work to fully acquaint him/herself with the exact existing conditions relating to the work and has fully informed himself as to the work involved and the difficulties and restrictions attending the performance of this bid. Failure to do so will not relieve a bidder of his obligation to furnish all labor, material and equipment necessary to carry out the work for the consideration set forth in this bid. The submission of a bid will be considered as conclusive evidence that the bidder has made such examination.

Where exploration or inspection data is shown on the Plans and/or specifications or made available to the Bidder, it is understood that such data where obtained in the usual manner and with reasonable care and are to be interpreted and used as the Bidder sees fit. There is no expressed or implied agreement that the data has been correctly indicated, and the Bidder is cautioned to take into account that conditions affecting the work may differ from those indicated.

The Owner assumes no responsibility whatsoever with respect to ascertaining for the Contractor such facts concerning physical characteristics relating to this project. The Bidder agrees that he shall make no claim for and has no right to additional payment or extension of time for completion of the work, or any other concession, because of any interpretations or misunderstanding on his part of this bid, or because of any failure on his part to fully acquaint himself with all conditions relating to the work. Permission for making borings, test pits, destructive tests or other investigations of subsurface conditions will be arranged for by the bidder upon receipt of a written approval by the Town.

CONSIDERATION OF PRIOR SERVICE

Previous performance, quality of service and merchandise will be considered.

ADDENDA AND INTERPRETATIONS & ALTERNATE PROPOSALS

Addenda information will be available online at <http://www.watertownct.org>. Adobe Acrobat® Reader may be required to view this document. It is strongly suggested that Bidders check for any addenda a minimum of forty-eight hours in advance of the bid deadline.

At the time of the opening of bids each Bidder will be presumed to have inspected the work and to have read and to be thoroughly familiar with all of the Contract Documents (including all addenda).

The failure or omission of any Bidder to receive or examine any form, instruction or document shall in no way relieve any bidder from any obligation in respect to his bid.

If any person contemplating submitting a proposal is in doubt as to the true meaning of any part of these specifications, he may submit a written request for an interpretation to the Purchasing Agent. No interpretations as to the meaning of the plans, specifications or other Contract Documents will be made to any Bidder orally.

Every request for such interpretation should be in writing addressed (duplicate copy) to the Town of Watertown, Purchasing Agent, 61 Echo Lake Road, Watertown, Connecticut 06795, and to be given consideration, must be received at least five (5) days prior to the date fixed for the opening of Bids. Any and all such interpretations and any supplementary instructions will be in the form of written Addenda to the Specifications which, if issued, will be mailed by Registered Mail with Return Receipt Requested to all prospective Bidders at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any Bidder to receive any such Addendum or interpretations shall not relieve any Bidder from any obligations under his bid as submitted. All Addenda so issued shall become part of the Contract Documents. Oral explanations will not be binding on the Town.

The specifications listed are to be interpreted as meaning the minimum acceptable by the Town of Watertown. Bidders are requested to submit quotations on the basis of these specifications. Alternative bids providing a broader scope and/or services than requested in these specifications may receive consideration providing such equipment and/or service is clearly explained. Any exceptions to the specifications requested herein must be clearly noted in writing and are to be included as a part of the bid proposal. If none are included it will be assumed that there are none.

Definition of the word "complete" means that each unit of the equipment proposed shall include all appurtenances, fasteners, parts, accessories, and services ordinarily catalogued.

An item equal to that named or described in the specifications may be furnished by the Bidder, except where expressly noted as "no substitutions." The naming of any commercial name, trademark, or other identification shall not be construed to exclude any item of any manufacturer not mentioned by name, nor limit competition, but shall establish a standard of equality only. An item shall be considered equal to the item so named or described if:

- It is at least equal in quality, durability, appearance, strength and design.
- It will perform at least equally the function imposed by the design for the work being contracted for or the material being purchased.
- It conforms substantially, even with deviations, to the detailed requirements for the item in the specifications.

The Bidder shall hold the Town of Watertown, its officers, agents, servants, and employees, harmless from liability of any nature or kind because of use of any copyrighted or uncopyrighted compositions, secret process, patented or unpatented inventions, articles or appliances furnished or used under this bid, and agrees to defend, at his own expense, any and all actions brought against the Town of Watertown or himself because of the unauthorized use of such articles.

QUOTATION LIMITATION

Bidders shall offer only **ONE ITEM AND PRICE** for each line item bid. If an or equal item is to be bid, the bidder is to select the brand and model that meets or exceeds the specified item, and submit his bid for that item.

ESTIMATE OF WORK

For bidding purposes, the work has been subdivided into unit price items. The quantities shown are to be considered as approximate only. The Purchasing Agent does not expressly or by implication agree that the actual quantity will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work as deemed necessary.

SAMPLES

Samples of articles, when required shall be furnished free of cost of any sort to the Town of Watertown. Samples received may be retained by the Town for future comparison. Samples which are not destroyed by testing, or which are not retained for future comparison will be returned upon request at the bidder's expense.

WITHDRAWAL OF BID

Bidders may withdraw their proposals at any time prior to the bid date. No agent/broker shall withdraw or cancel their proposal for a period of sixty (60) days after the bid closing date of **11:00 a.m., Tuesday, September 27, 2022**. The successful agent/broker shall not withdraw, cancel or modify their proposal.

PERFORMANCE BONDS / PAYMENT BONDS

A performance bond is required and shall be in the amount of 100% of the bid award, in the name of the "Town of Watertown", in the form and with a surety company approved by the State Commissioner of banking and insurance, and issued within ten (10) calendar days of the bid award date. Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Connecticut. This financial instrument shall be for the faithful performance of the contract, and shall be used at the sole discretion of the Town of Watertown to pay liquidated Damages for failure or refusal to perform in accordance with the contract. No withdrawals shall be made until after five (5) calendar days notice of noncompliance with the contract is sent by certified U.S. Mail. This in no way limits further actions the Town of Watertown may take.

POWER OF ATTORNEY

Attorneys-in-fact who sign contract bonds must file, with each bond, a certified and effectively dated copy of their power of attorney.

EXECUTION OF CONTRACT

The party to whom the Contract is awarded, or his authorized representative, will be required to attend at the office of the Purchasing Agent of the Town of Watertown, with the sureties offered by him or them, and a current certificate of Corporate good standing issued by the Office of the Secretary of State, in which the corporation is incorporated, and execute the Contract within five (5) days from the date of the award. If the party entering into this contract is a corporation, a Corporate Resolution duly executed by the President and Secretary of the Corporation authorizing the Corporation to enter into this Contract shall be provided. In case of his failure or neglect so to do, the Town may, at its option, determine that the Bidder has abandoned the Contract, and thereupon the Proposal and acceptance shall be null and void, and bid security accompanying the Proposal shall be forfeited as liquidated damages to the Town. If the party entering into this contract is a partnership, a partnership resolution duly executed by a majority of the general partners authorizing the partnership to enter into this contract shall be provided.

SUBCONTRACTORS

- Each bidder contemplating the use of any subcontractor shall submit a list of subcontractors as listed on the Bid Form.
- The apparent low bidder shall file with the Town of Watertown, within five (5) days after the date of bid opening, a complete list of the names and addresses of competent, responsible and qualified subcontractors who are actually to perform major portions of the work. This in no way restricts or limits the requirement that all subcontractors must be approved by the Town.
- Subcontractors listed on the Bid Form or those previously approved may not be changed without the approval of the Town of Watertown.

Local subcontractors, material suppliers, and labor in the Town of Watertown should be considered and sought insofar, as is practical in the performance of this project.

QUALIFICATION OF BIDDER

In determining the qualifications of a bidder, the Town may consider his record in the performance of any contracts for similar work into which he may have previously entered; and the Town expressly reserves the right to reject the bid of such bidder if such record discloses that such bidder, in the opinion of the Town, has not properly performed such contracts or has habitually, and without just cause, neglected the payment of bills or has otherwise disregarded his obligations to subcontractors, suppliers, state or local codes, men or employees of subcontractors.

The Town may make such investigation as he deems necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if the evidence submitted by or the investigation of such bidder fails to satisfy the Town that such bidder is properly qualified, or that such bidder misrepresented material facts in the bid documents.

DISQUALIFICATION OF BIDDERS

More than one proposal from an individual, firm, partnership, corporation, or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Any or all proposals in which such Bidder is interested will be rejected if there is reason for believing that collusion exists among the Bidders and all participants in such collusion will not be considered in future proposals for the same work. Proposals in which the prices are obviously unbalanced may be rejected. No Contract will be awarded except to competent Bidders capable of performing the class of work contemplated.

DELIVERY

Inasmuch as this work concerns a needed public improvement, the provisions of this bid relating to the time of delivery, performance and completion of the work are of the essence of this bid. Accordingly, the successful bidder shall commence work **upon receipt of the signed Purchase Order** unless the Town shall authorize or direct a further delay. Time of delivery shall be stated as the number of calendar days following receipt of the Purchase Order by the Bidder to receipt of the goods or services by the Town of Watertown. **Work is to be completed by November 15, 2022.**

Prices quoted must include delivery to the Town of Watertown as specified on the Purchase Order. No charges will be allowed for parking, crating, freight, express or cartage unless specifically stated and included in this bid.

Time of delivery may be considered in the award.

PAYMENT

The successful bidder shall execute three (2) copies of the contract agreements. Monthly payments to the Bidder shall be made on ninety-five percent (95%) of the value of work completed, materials and supplies delivered to the site and properly stored. The successful Bidder for this project shall be required to submit a Mechanics Lien Waiver, acceptable to the Town, with each progress payment, and at time of final payment, prior to any payment made.

The Town, after inspection and acceptance of workmanship, and in consideration of the faithful performance by the Bidder of all and singular his covenants, promises, and agreements contained herein, agrees to pay the Bidder for the full completion by him of the work embraced in this Contract, within (30) Thirty Days of the receipt of the final invoice. When subcontractors or suppliers are utilized, the successful Bidder for this project shall be required to submit a Mechanics Lien Waiver, acceptable to the Town, with each progress payment and/or at time of final payment prior to any payment being made.

Time, in connection with any discount offered, will be computed from the date of delivery to the Town or from the date a correct invoice is received by the Town's Finance Department, if the latter date is later than the date of delivery.

Prices will be considered as **NET**, if no cash or payment discount is shown.

The successful bidder shall submit invoices to the following address:

Town of Watertown
Water and Sewer Authority
747 French Street
Oakville, CT 06779

IT IS UNDERSTOOD AND AGREED THAT SHOULD A BID BE ACCEPTED, IT WILL AUTOMATICALLY BECOME THE CONTRACT OR AN ADDENDUM TO ANY CONTRACT AGREED UPON.

Notification of the bid award will be made by issuance of a purchase order. Bidders are to list their bids on the appropriate attached sheets. Bidders may attach a letter of explanation. A clear notification should be made on the standard bid sheets at the appropriate point of explanation that there is a letter of explanation attached. All bids must be NET prices.

The successful bidder shall submit an itemized invoice to the Town of Watertown for the work as described herein.

The bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Watertown, with each progress payment and at time of final payment prior to any payment being made.

At the time of award, the successful bidder shall be required to supply the Town of Watertown a Certificate of Good Standing, certifying that the corporation is in fact a valid corporation and presently licensed to conduct business in the State of Connecticut.

SALES TAX

Certain materials and supplies incorporated in the work of this project are exempt from Connecticut Sales Tax. The Bidder shall familiarize himself with current regulations of the State Tax Department. The tax on materials or supplies exempted by such regulations shall not be included as part of the bid. The Town will furnish the successful Bidder sales tax exemption authorization.

CARE AND PROTECTION OF PROPERTY

The Bidder shall take particular care to avoid damages to all private and public property and to private or public improvements within the Town's right of way. He shall make good any damages to the satisfaction of the Town. There shall be no additional compensation for the repair or restoration of private or public property improvements.

COMPLIANCE WITH FEDERAL, STATE AND LOCAL CODES

The Bidder shall be responsible for full compliance with any Federal, State and/or Local codes, laws, regulations and standards, as applicable-

AWARD

The Town of Watertown reserves the right to accept or reject any bid to best serve its interests, or to hold the bids for sixty (60) days before decision.

The Town reserves the right to reject any and all bids (or any part thereof), to waive defects in proposals, or to accept any proposal deemed to be in its best interest.

Exceptions will be considered to the specification provided, providing they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS"

Each exception will be considered as to its degree of impact and total effect on the bid. The purchaser shall determine which (if any taken) exceptions are acceptable, and this determination shall be final.

The Town of Watertown reserves the right:

- To award bids received on the basis of individual items, or groups of items, or on the entire list of items.
- To reject any or all bids, or any part thereof.
- To waive any informality in the bids.
- The Town of Watertown reserves the right to take into account the residency of bidders within the Town of Watertown and/or the location of the bidder's business within the Town of Watertown in awarding this bid.
- To accept the bid that is in the best interest of the Town of Watertown. The Purchasing Agent's decision shall be final.

INSURANCE

A. General:

The Bidder shall be responsible for maintaining insurance coverage in force for the life of the contract of the kinds and adequate amounts to secure all of the Bidder's obligations under the contract with an insurance company with an AM Best Rating of A - VII or better licensed to write such insurance in Connecticut and acceptable to the Town of Watertown.

The insurer shall provide the Town of Watertown with Certificates of Insurance signed by an authorized representative of the insurance company(ies) prior to the performance of this contract describing the coverage and providing that the insurer shall give the Town of Watertown written notice at least thirty (30) days in advance of any termination, expiration, or any and all change in coverage.

Such insurance or renewals or replacements thereof shall remain in force during the Bidder's responsibility under this agreement.

The Bidder at his own cost and expense shall procure and maintain all insurance required and shall name the Town of Watertown as an additional insured on all contracts except Worker's Compensation and Professional Errors & Omissions coverage.

In order to facilitate this requirement for insurance, it is recommended that the bidder forward a copy of this exhibit to the bidder's insurance representative(s).

B. Specific Requirements:

(1) Workers' Compensation Insurance

The Bidder shall provide Workers' Compensation Insurance required by law and the Employer's Liability Insurance for at least the amounts of liability for Bodily Injury by accident of \$100,000 each accident; Bodily Injury by Disease each employee of \$100,000; Bodily Injury by Disease, policy limit of \$500,000.

(2) Commercial General Liability Insurance

The Bidder shall carry Commercial General Liability policy (Insurance Services Office Incorporated Form CG-0001 or equivalent). A per occurrence limit of \$1,000,000 is required. The Aggregate Limit will be not less than \$1,000,000.

(3) Business Automobile Liability Insurance

The Bidder shall carry Business Automobile Liability Insurance. (Insurance Services Office Incorporated Form CA-00001 or equivalent). A per occurrence limit of \$1,000,000 is required. "Any Auto" (symbol 1 or equivalent) is required.

C. Hold Harmless & Subcontractor's Requirements:

The Bidder shall require the same insurance that it is required to carry by the Town of Watertown to be carried by any subcontractors and independent contractors hired by the Bidder and to obtain Certificates of Insurance before subcontractors and independent contractors are permitted to begin work.

The Bidder shall require that the Town of Watertown be named as Additional Insured on all subcontractor's and independent contractor's policies before they are permitted to begin work.

The Bidder and all subcontractors and independent contractors and their insurers shall waive all rights of subrogation against the Town of Watertown, and its officers, agents, servants and employees for losses arising from the work performed by each on this contract.

The Bidder assumes and agrees to hold harmless, indemnify, protect and defend the Town of Watertown against any and all liability for injuries and damages to Bidder and to Bidder's employees, agents, subcontractors and guests, third parties or otherwise incident to or resulting from any and all operations performed by a contractor under any terms of this contract.

D. Other Data:

NOTE 1: If Bidder is only a vender shipping goods via Common Carrier only, General Liability is required.

NOTE 2: If Bidder is a Professional, Errors & Omission coverage will be required.

NOTE 3: The Town reserves the right to amend amounts of coverage required and the types of coverage provided based on work or service to be performed.

GUARANTEE

The bidder shall unconditionally guarantee for a period of one (1) year from the date of acceptance, all materials, supplies, equipment, and services; including but not limited to its workmanship,

delivery and installation. If within the guarantee period there are any defects or signs of deterioration the bidder shall repair, adjust or replace the item(s) to the complete satisfaction of the Town. These repairs, adjustments, or replacements are at the sole expense of the bidder and shall be made at such times that are agreeable to the Purchasing Agent so that it is least detrimental to instructional programs.

REPAIRS FOR ONE (1) YEAR

The bidder's attention is especially directed to the Guarantee Section of the contract whereby two percent (2%) of the Contract amount will be retained for making repairs on the work, as may be required, during the guarantee period of one (1) year after the date of the final estimate.

PERMITS

When required all licenses and permits for complying with any applicable Federal, State, and Municipal laws, codes, regulations in connection with the prosecution of the work shall be obtained by the Bidder, at no additional cost to the Town. The cost of local building permits will be assessed at sixteen cents per one thousand dollars of construction value as declared on the building permit application pursuant to State of Connecticut Statute Sec. 29-263 by the Town of Watertown. The successful contractor will be responsible for payment to the Town of Watertown Building Inspection Department.

NONDISCRIMINATION IN EMPLOYMENT

The successful bidder shall agree and warrant 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, sex, religion, or national origin in any manner prohibited by State, Federal, County, or Municipal law. A certification of Nonsegregated Facilities and a Certification Regarding Equal Employment Opportunity shall be considered a part of this contract.

DISPUTE RESOLUTION

1. **Mandatory Negotiation.**

The parties agree that they will attempt to negotiate in good faith any dispute of any nature arising under this agreement. The parties shall negotiate in good faith at not less than two (2) negotiation sessions prior to seeking any resolution of any dispute by any means under Dispute Resolution provisions contained herein below. Each party shall have the right to legal representation at any such negotiation session.

2. **Mandatory Mediation.**

Any dispute or question arising under the provisions of this agreement, which has not been resolved under the mandatory negotiation provision, shall be submitted to non-binding mediation before one (1) mediator agreed upon by the parties or appointed by the American Arbitration Association. Mediation proceedings shall take place at any suitable location in Watertown, Connecticut and shall be conducted in accordance with the rules and procedures of the mediation then applicable of the American Arbitration Association. If an independent mediator is agreed upon by the parties, said independent mediator shall establish the rules of such mediation. Each party shall pay one half of all costs and expenses of such mediation. The parties shall use their best efforts to reach a good faith resolution of said dispute within ninety (90) days after the commencement of the mediation proceedings. Any decision of the mediator shall not be binding upon the parties except by agreement of the parties.

3. Election to Begin Court Proceedings.

Provided the parties have completed the mandatory negotiation proceedings and the foregoing provisions with respect to mediation notwithstanding, if either party determines that mediation is not an appropriate means to settle any such dispute, such party shall have the right to commence judicial proceedings for the purpose of settling any such dispute.

MECHANICS LIEN WAIVERS

The successful Bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Watertown, with each progress payment, and/or at time of final payment, prior to any payment made.

OSHA 10 HOUR CERTIFICATION

Contractor shall provide documentation to verify that all employees working on project have received OSHA 10 Hour certification.

For further technical or administrative information contact Donna Ford, Purchasing Agent via email at ford@watertownct.org.

**DOCUMENTS AND SPECIFICATIONS
FOR THE
2"- WATER MAIN REPLACEMENT
ON
FREDERICK STREET
OAKVILLE, CT**

Prepared By:

**The Town of Watertown
Water and Sewer Authority
747 French Street
Oakville, CT 06779**

Date: September, 2022

CONTRACT DRAWINGS

00-004-1

The following Drawings are considered part of these Contract Documents (the Drawings may or may not be physically attached to this document; however, they are legally incorporated into the Contract Document). The Drawings are entitled "Water Main Improvements".

<u>NUMBER</u>	<u>TITLE</u>
1 OF 2	Proposed Water Main Replacement Frederick Street, Watertown, CT Date: Rev. 8/25/22
2 OF 2	Water Main Detail Frederick Street, Watertown, CT Date: Rev. 8/25/22

END OF SECTION

TECHNICAL SPECIFICATIONS

00-005-1

<u>SECTION NO.</u>	<u>NAME</u>
02-001	General Requirements for Construction
02-105	Mobilization
02-121	Water Pollution Control (Soil Erosion)
02-122	Sedimentation Control System
02-124	Catch Basin Protection
02-150	Maintenance and Protection of Traffic
02-156	Traffic Person
02-205	Rock Excavation
02-207	Borrow
02-220	Excavation
02-250	Bedding and Backfill
02-260	Base and Subbase
02-501	Temporary Trench Patch
02-502	Permanent Paving and Trench Patch
02-510	Temporary Bypass System
02-660	Water Distribution System
02-670	Water Service Lines
02-910	Grass Surface Restoration

GENERAL REQUIREMENTS FOR CONSTRUCTION

02-001-1

PART 1 - GENERAL

- A. Throughout various sections of these Specifications, reference is made to "CONNDOT FORM 818" or simply, "Form 818". These terms shall be construed to mean the "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges, and Incidental Construction, Form 818, 2020 as supplemented and amended below. The Contractor shall be familiar with this document and have a copy on the construction site at all times. In Form 818 the words "State", "Department", and other references to the State of Connecticut Department of Transportation shall mean the Owner.
- B. Throughout various sections of these Specifications, reference is made to "ANSI/AWWA Standards". These terms shall be construed to mean the "Standards of the American Water Works Association", latest edition. The Contractor shall be familiar with this document and have a copy on the construction site at all times.
- C. National Fire Protection Association (NFPA) — Throughout various sections of these Specifications, reference is made to "NFPA Standards". These terms shall be construed to mean the "Standards of the National Fire Protection Association", latest edition. The Contractor shall be familiar with this document and have a copy on the construction site at all times.
- D. Prior to commencement of any work, the Owner will coordinate and hold a preconstruction conference to clarify any outstanding issues and to delineate contract performance and administrative procedures. The Contractor must attend this conference. All costs borne by the Contractor in preparing for and attending the preconstruction conference shall be included in the Base Bid.
- E. The Contractor shall furnish to the Owner all design plans certified by a Connecticut Licensed Professional Engineer as required, shop drawings, working drawings, product literature, material samples, test reports, etc., for all construction items and components. Any cost born by the Contractor in preparing submittals shall be included in the bid prices. Each submittal shall be numbered consecutively and shall be submitted to the Owner. The Contractor shall furnish submittals far enough in advance of scheduled installation dates to provide time for review and approvals, possible revisions and resubmittals, ordering product (following approval), and delivery. The Contractor shall submit sufficient copies of submittals for his needs plus two copies to be retained by the Owner.
- F. Before, during, or following construction activities, the Owner (at its own expense) may test any of the various products or materials furnished by the Contractor. The Contractor shall remove and replace, at no expense to the Owner, any construction item

GENERAL REQUIREMENTS FOR CONSTRUCTION

02-001-2

that does not comply with these Contract Documents. The Contractor shall provide access to any work, complete or in progress, so that the Owner or its designated agents may perform tests properly.

END OF SECTION

MOBILIZATION

02-105-1

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Comply with ConnDOT Form 818, Article 9.75.01

1.2 REFERENCES

- A. ConnDOT Form 818

1.3 SUBMITTALS

- A. None Required

PART 2 - PRODUCTS

2.1 MOBILIZATION

- A. No products required.

PART 3 - EXECUTION

3.1 MOBILIZATION

- A. Comply with ConnDOT Form 818, Article 9.75.

PART 4 - METHOD OF MEASUREMENT

- A. This item shall be measured individually, under the bid item for “Mobilization”.

PART 5 - BASIS OF PAYMENT

- A. This item shall be paid individually, under the Contractor’s lump sum bid price for “Mobilization”.

END OF SECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Comply with ConnDOT Form 818, Article 2.10.01. This work shall also include implementation of the project's approved soil erosion and sediment control plan, but shall not include the cost of installing and maintaining certain soil erosion and sediment control measures included in other sections of the technical specifications.

1.2 REFERENCES

- A. ConnDOT Form 818

1.3 SUBMITTALS

- A. None required.

1.4 PROJECT / SITE CONDITIONS

- A. Maintain an on-site copy of any local, state, or federal land-use permits that apply to this project. Adhere to permit conditions, as required.

1.5 SEQUENCING / SCHEDULING

- A. Review the project's approved soil erosion and sediment control plan and review soil erosion and sediment control measures (as installed) with the Inspector prior to commencement of construction items.

PART 2 - PRODUCTS

2.1 NONE.

PART 3 - EXECUTION

3.1 CONSTRUCTION METHOD

WATER POLLUTION CONTROL (SOIL EROSION)

02-121-2

- A. Comply with ConnDOT Form 818, Article 2.10.03.
- B. Comply with the project's approved soil erosion and sediment control plan and any conditions imposed on the project through local, state, and federal land-use permits.

PART 4 - METHOD OF MEASUREMENT

- A. This item shall be measured individually, under the bid item for "Water Pollution Control (Soil Erosion)".

PART 5 - BASIS OF PAYMENT

- A. This item shall be paid for in the Contractor's lump sum bid price for the "Water Pollution Control (Soil Erosion)".

END OF SECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Comply with ConnDOT Form 818, Article 2.19.01.

1.2 REFERENCES

- A. ConnDOT Form 818

1.3 SUBMITTALS

- A. None required.

PART 2 - PRODUCTS

2.1 SEDIMENTATION CONTROL SYSTEMS

- A. Comply with ConnDOT Form 818, Article 2.19.02

PART 3 - EXECUTION

3.1 CONSTRUCTION METHOD

- A. Comply with ConnDOT Form 818, Article 2.19.03.

PART 4 - METHOD OF MEASUREMENT

- A. This item shall be measured individually, under the bid item for “Sedimentation Control Systems”.

PART 5 - BASIS OF PAYMENT

- A. This item shall be paid for in the Contractor’s lump sum bid price for the “Sedimentation Control Systems”.

END OF SECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Furnish, install, and maintain geotextile grate protection at catch basins as directed on the Contract Drawings.

1.2 REFERENCES

- A. ConnDOT Form 818

1.3 SUBMITTALS

- A. Furnish product literature for geotextile grate protection.

PART 2 - PRODUCTS

2.1 GEOTEXTILE

- A. For protection of catch basin grates, use geotextile (filter fabric) conforming to ConnDOT Form 818, Sections 7.55 and M.08.

PART 3 - EXECUTION

3.1 CONSTRUCTION METHOD

- A. Wrap catch basin grates with approved geotextile. The Contractor shall check the geotextile weekly and after each rainfall event and remove/replace the fabric once it becomes damaged or clogged.
- B. Upon completion of construction, all storm drainage inlets that were protected by geotextiles shall be cleaned of all sediment.

CATCH BASIN PROTECTION

02-124-2

PART 4 - METHOD OF MEASUREMENT

- A. This item shall be measured individually, under the bid item for “Catch Basin Protection”.

PART 5 - BASIS OF PAYMENT

- A. This item shall be paid for in the Contractor’s lump sum bid price for the “Catch Basin Protection”.

END OF SECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Comply with ConnDOT Form 818, Article 9.71.01.
- B. Apply for and obtain permits for all work within the State roadways. The Contractor shall include the cost of all State required bonds and insurance in the cost of this item.
- C. Maintain existing traffic control devices, traffic loop detectors, wiring and conduits throughout the duration of the contract.

1.2 REFERENCES

- A. ConnDOT Form 818.

1.3 SUBMITTALS

- A. Furnish the Owner with three complete copies of all Town and State permits.
- B. Submit proposed signing plan for traffic control in State roadways, for approval of the Engineer.

1.4 PROJECT / SITE CONDITIONS

- A. Implement various traffic control schemes as necessary to construct the work.

1.5 SEQUENCING

- A. Before commencement of construction:
 - 1. Apply for and acquire a State permit for all work within State rights-of-way.
 - 2. Notify various entities of the impending construction (see Part 3 below).
 - 3. Install all required traffic control signs.
 - 4. Install drums, signs, and cones in immediate vicinity of the work.
 - 5. Make all necessary adjustments of traffic control devices per the direction of the Owner, Engineer.

MAINTENANCE AND PROTECTION OF TRAFFIC

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- B. Following completion of construction:
1. Remove all construction signs, cones, drums, etc. from the project site.
 2. Repair areas damaged by sign placement or construction activities to pre-construction condition.

PART 2 - MATERIALS

- 2.1 NONE.

PART 3 - EXECUTION

3.1 CONSTRUCTION METHOD

- A. Comply with ConnDOT Form 818, Article 9.71.03.
- B. Apply for and obtain the permit for all work within State rights-of-way. Include the cost of all State required bonds and insurances in the cost of this item.
- C. Notify the following entities of the commencement and termination of construction at project site:

ENTITY	Telephone Number
Owner	(860) 945-5299
Engineer	(860) 945-5299

PART 4 - METHOD OF MEASUREMENT

- A. All work involved in “Maintenance and Protection of Traffic shall be measured individually, under the bid item “Maintenance and Protection of Traffic”.

PART 5 - BASIS OF PAYMENT

- A. All work involved in the “Maintenance and Protection of Traffic” shall be paid for in the Contractor’s lump sum bid price for the “Maintenance and Protection of Traffic”.

MAINTENANCE AND PROTECTION OF TRAFFIC

02-150-3

- B. All work involved in the Maintaining Traffic Control Devices, Traffic Loop Detectors and Associated Infrastructure” shall be paid for in the Contractor’s lump sum bid price for the “Maintain Traffic Control Devices.”

END OF SECTION

PART 1 – GENERAL

1.1 SCOPE OF WORK

- A. Use Watertown Police for traffic control. Contractor shall schedule Police.
- B. Use when Watertown Police are unavailable, comply with ConnDOT Form 816, Article 9.70.01, utilizing Connecticut DOT certified traffic control contractors with official vehicles and associated equipment.
- C. Provide certified traffic control personnel for work within Town roadway Right-Of-Ways.
- D. Provide certified traffic control personnel in all other locations where traffic control is required.

1.2 REFERENCES

- A. ConnDOT Form 816

1.3 SUBMITTALS

- A. Submit qualifications of proposed certified traffic control firm, including individuals proposed to be assigned to the project, to the Engineer for review and approval.
- B. Include traffic control firm backup information on invoices in periodic payment requisitions.

1.4 PROJECT/ SITE CONDITIONS

- A. None.

PART 2 – PRODUCTS

None required

PART 3 – EXECUTION

3.1 CONSTRUCTION METHOD

- A. Furnish certified traffic control personnel for any and all work within Town Right-Of-Ways, when Watertown Police are unavailable.

PART 4 – METHOD OF MEASUREMENT

- A. This item will be measured as the actual number of hours for Trafficperson.

PART 5 – BASIC OF PAYMENT

- A. Owner will compensate Watertown Police Department directly for police traffic control. When Town of Watertown police are not available, this item will be paid for at the contract unit price for “Trafficperson (Certified Traffic Control Personnel)”

TRAFFICPERSON

02-156-2

-
- A. Furnish certified traffic control personnel for any and all work within Town rights-of-way.

PART 4 - METHOD OF MEASUREMENT

4.1 TRAFFICPERSON (CERTIFIED TRAFFIC CONTROL PERSONNEL)

- A. This item will be measured as the actual number of hours for a “Trafficperson(Certified Traffic Control Personnel)”.

PART 5 - BASIS OF PAYMEN

5.1 TRAFFICPERSON (CERTIFIED TRAFFIC CONTROL PERSONNEL)

- A. This item will be paid for at the contract unit price for “Trafficperson (Certified Traffic Control Personnel).”

END OF SECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Comply with ConnDOT Form 818, Article 2.05.01, as it pertains to the removal of:
- B. Rock in definite ledge formation
- C. Boulders, portions of boulders, cement-masonry structures or concrete structures, each discrete object a minimum of one cubic yard or more in volume.

1.2 REFERENCES

- A. ConnDOT Form 818

1.3 SUBMITTALS

- A. None.

1.4 PROJECT / SITE CONDITIONS

- A. Notify the Inspector immediately when the need for rock-in-trench excavation arises.

1.5 SEQUENCING

- A. Notify the Inspector immediately when the need for rock-in-trench excavation arises.

PART 2 - PRODUCTS

2.1 ROCK-IN-TRENCH EXCAVATION

- A. No products required.

PART 3 - EXECUTION

3.1 CONSTRUCTION METHOD

ROCK EXCAVATION

02-205-2

- A. Comply with ConnDOT Form 818, Article 2.05.03.
- B. All rock excavation shall be accomplished by mechanical removal only.

PART 4 - METHOD OF MEASUREMENT

- A. Rock-in-trench excavation shall be measured as the actual volume measured in the field, within the contract limits shown on the plans, and approved by the Engineer.

PART 5 - BASIS OF PAYMENT

- A. Rock-in-trench excavation shall be paid for as the alternate item unit price for “Rock-In-Trench Excavation”.

END OF SECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Furnish borrow material, as necessary, to replace bedrock, unsuitable soil and/or contaminated soil removed from during construction.
- B. Comply with ConnDOT Form 818, Article 2.18.01.

1.2 REFERENCES

- A. ConnDOT Form 818

1.3 SUBMITTALS

- A. Provide a gradation test from a certified material testing laboratory for a representative sample of borrow material.

1.4 PROJECT / SITE CONDITIONS

- A. Notify the Inspector and Engineer immediately if the need for borrow material arises. Do not import borrow material to replace bedrock or unsuitable soil until the Engineer approves of this item in writing.

1.5 SEQUENCING

- A. Notify the Inspector and Engineer immediately if the need for borrow material arises. Do not import borrow material to replace bedrock or unsuitable soil until the Engineer approves of this item in writing

PART 2 - PRODUCTS

2.1 BORROW

- A. Comply with ConnDOT Form 818, Article 2.07.02

BORROW

02-207-2

PART 3 - EXECUTION

3.1 CONSTRUCTION METHOD

- A. Comply with ConnDOT Form 818, Article 2.07.03.

PART 4 - METHOD OF MEASUREMENT

- A. Borrow shall be measured as the actual volume measured in the field, and approved by the Engineer.

PART 5 - BASIS OF PAYMENT

- A. Borrow shall be paid for as the alternate item unit price for “Borrow”.

END OF SECTION

EXCAVATION

02-220-1

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Provide all labor, tools, materials, equipment and incidentals required to perform the work called for in this Section of the Specifications, including, but not necessarily limited to, the following:
- B. The Contractor shall make all earth excavations and rock excavations, including removal of existing pavements, road base, curbs, walks, and abandoned pipes and structures encountered in the construction of the utilities, services, appurtenances, structures, roadway and the Storm Water Basin as required for the proper completion of the work included under this Contract, and shall dispose of all unsuitable excavated materials as specified herein.
- C. The excavation shall include stripping topsoil, saw cutting of pavements and sidewalks, removal, handling, stockpiling and disposal of any and all materials encountered within the limits of the work, and shall include all pumping, bailing, draining, sheeting, shoring, coffer damming and protection therefore.

PART 2 - SUBMITTALS:

2.1 DESIGN DRAWINGS

- A. Prepare and submit the following design drawings. All design drawings shall be signed and sealed by an engineer registered in the State of Connecticut:
 - 1. Excavation Plan - The excavation plan shall outline the methods and procedures that the Contractor will employ to successfully stabilize excavations, as required to construct the work.
 - 2. Excavation Dewatering Plan - The excavation dewatering plan shall outline the methods and procedures that the Contractor will employ to successfully dewater excavation and dispose of the dewatering wastewater, including measures for erosion control and sediment removal.

2.2 MATERIALS:

- A. "Earth" shall consist of all materials, with the exception of rock, removed as indicated or directed from within the excavation limit lines.

EXCAVATION

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- B. "Rock" shall consist of definite ledge formation, boulders or portions of boulders, cement masonry structures, concrete structures, Portland cement concrete pavement or base, each discrete object a minimum of 1 cubic yard or more in volume, removed as indicated or directed from within the excavation limits.

PART 3 - EXECUTION

3.1 EXECUTION:

- A. Roadway excavation shall conform to Section 2.02 of Form 818. It shall include removal of existing pavement, base and sub-base, portions of driveways including pavement and base, with limits shown on the plans.
- B. Structure excavation shall conform to Section 2.03 of Form 818.
- C. Pavement, driveways, curbs and sidewalks shall be cut as required with a pneumatic tool or saw, removed, and disposed of by the Contractor.
- D. If the bottom of any excavation is taken out beyond the limits indicated or prescribed, the resulting void shall be backfilled at the Contractor's expense with thoroughly compacted, suitable backfill material as described in Section 02-240, Compacted Gravel Fill.
- E. All suitable material removed in making the excavation shall be used for backfill where required. All surplus or unsuitable material shall be removed and disposed of by the Contractor. Suitable material is specified under Section 02-240, Compacted Gravel Fill.
- F. The Contractor shall note that there may be other existing utilities in close proximity to the work. These utilities have been indicated on the drawings, but the completeness or accuracy of the information given is not guaranteed. It is the Contractor's responsibility to make himself aware of these locations and to contact Call-Before-You-Dig prior to any excavation.
- G. As the excavation approaches pipes, conduits or other underground structures, digging by machinery shall be discontinued and the excavation shall be done by means of hand tools. Such manual excavation, when incidental to normal excavation, shall be included in the work to be done under items involving normal excavation.
- H. Where determination of the exact location of pipe or other underground structure is necessary for doing the work properly, the Contractor may be required to excavate test pits to determine such locations, at no extra cost to the Owner.

EXCAVATION

02-220-3

- I. Until final acceptance of the work, the Contractor shall pump out, or otherwise remove and dispose of as fast as it may collect, any water or other liquids which may be found or may accumulate in the excavations. Perform this in full conformance with their approved Excavation Dewatering Plan.
- J. There shall be upon the work at all times during the construction proper and approved machinery of sufficient capacity (including spare units kept ready for immediate use in case of breakdowns) to meet the maximum requirements for the removal of the water or other liquids and their disposal in such a manner as not to withdraw sand or cement from the concrete and so as not to interfere with the proper laying of pipe and/or masonry, or the prosecution of work under this or other contract, nor endanger existing structures.
- K. All existing walks, pipes, conduits, poles, wires, fences, stairways, curbings, property line markers, walls, buildings and other structures which do not, in the opinion of the Engineer, require to be changed in location, shall be carefully supported and protected from injury by the Contractor without additional compensation, and in case of injury, they shall be restored by him without compensation therefor, to as good condition as that in which they were found.
- L. Tree roots shall not be mutilated, nor shall they be cut, except by permission of the Engineer. When permitted to cut tree roots, the ends shall be cut off smooth, without splitting or shattering. The trunks of the trees shall be carefully protected from damage, and if unavoidable damage occurs, the injured portions shall be neatly trimmed and covered with an application of grafting wax or other approved preparation. Power driven excavation machinery shall be handled with care to prevent damage to shade trees, particularly to overhanging branches, and branches shall not be cut off except by special permission of the Engineer.
- M. The Contractor shall, at his own expense, dig up, handle, protect and properly reset hedges, small trees, shrubbery, signs, posts, guard rails, curbing other than bituminous and the like along the line of or adjacent to the work, and shall take all reasonable care in this work not to disturb any object that can be saved in its existing condition.

PART 4 - METHOD OF MEASUREMENT

- A. This item shall not be measured individually, but instead shall be measured as part of the contract unit price for the water main, water service connection, sewer main, sewer lateral, fire hydrant assemblies, etc.

PART 5 - BASIS OF PAYMENT

EXCAVATION

02-220-4

- A. This item shall not be paid for individually, but instead shall be paid as part of the contract unit price for the water main, water service connection, sewer main, sewer lateral, fire hydrant assemblies, etc.

END OF SECTION

PART 1 - GENERAL**1.1 SCOPE OF WORK**

- A. Provide all labor, tools, materials, equipment and incidentals required to perform the work called for in this Section of the Specifications, including, but not necessarily limited to, the following:
- B. Install sand bedding and backfill for water mains.
- C. Install backfill material for trench backfill and other areas as required to produce desired grades.
- D. Install compacted processed aggregate base material as top surface along woods road above water main.

PART 2 - MATERIALS**2.1 WATER MAINS**

- A. Sand for pipe bedding and backfill: Comply with ConnDOT Form 818, Article M.08.03.01 – bedding sand, provided that 95% standard proctor compaction under pavement areas can be achieved. For instances of high ground water in the trench, the Engineer may allow No. 6 Stone conforming to M.01.01 in lieu of sand.
- B. Sand shall be the fine granular material naturally produced by the disintegration of rock and shall be sufficiently free of organic material, mica, loam, clay and other deleterious substances. In case visual inspection of the sand indicates that it is too coarse, the following gradation shall determine its acceptability:

SIEVE SIZE	PERCENT PASSING SIEVES
3/8 inch	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#50	10-30
#100	2-10

BEDDING AND BACKFILL

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- C. All imported material used for trench backfill shall conform to Section M.02.01 - Granular Fill, of Form 818.
- D. The nature of the materials will govern both their acceptability for backfill and the methods best suited for their placement and compaction in the backfill. In general, material used for backfilling trenches and excavations around structures shall be suitable material which was removed in the course of making the construction excavations complying with Section M.02.01 – Granular Fill, of Form 818. The source and quality of all materials brought in from off-site must be approved by the Owner, prior to delivery.
- E. No stone or rock fragment larger than 12 inches in greatest dimension shall be placed in the backfill, nor shall large masses of backfill material be dropped into the trench in such a manner as to endanger the pipeline. Pieces of bituminous pavement shall be excluded from the backfill.

PART 3 - EXECUTION

- A. As soon as practicable after the pipes have been laid or the structures have been built and are structurally adequate to support the loads, including construction loads to which they will be subjected, the backfilling shall be started and thereafter it shall proceed until completion.
 - 1. Zone Around Pipe: The space between the pipe and bottom side of the trench shall be packed full by hand shovel with sand. In placing the material, care shall be taken that stones do not strike the pipe. The backfill under the pipe shall be thoroughly compacted using curved tamping bars. Sand backfill at the sides and up to the top of the pipe shall be compacted using approved hand tampers. Sand backfill up to a level of 1 foot above the top of the pipe shall be placed in 6-inch layers, leveled along the length and width of the trench, and thoroughly compacted using approved tampers. No sand shall be placed above the top of the pipe until sand under and at the sides of the pipe has been compacted. Care shall be taken in the use of mechanical or other tampers not to injure or move the pipe, or to cause the pipe to be supported unevenly.
 - 2. Remainder of Trench: The remainder of the trench above the zone around the pipe may be placed in one layer, provided it is compacted by means of a hoe-pack to achieve a 95% modified proctor density. If a hoe-pack is not used, the backfill shall be spread in layers not exceeding twelve (12) inches in depth prior to compaction. Each layer shall be carefully and thoroughly tamped with approved tools in such a manner as to prevent settlement after the backfill has been completed and to achieve a 95% modified proctor density. Compaction tests (initially to verify proper compaction, then one per 200 feet thereafter, and/or

BEDDING AND BACKFILL

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required by the Inspector) will be required to verify that proper compaction is achieved. Compaction tests will be conducted by the Contractor.

PART 4 - METHOD OF MEASUREMENT

- A. This item, shall not be measured individually, but instead shall be measured as part of the contract unit price for the water main, water service connection, sewer main, sewer lateral connection or fire hydrant assemblies.

PART 5 - BASIS OF PAYMENT

- A. This item shall not be paid for individually, but instead shall be paid as part of the contract unit price for the water main, water service connection, sewer main, sewer lateral connection or fire hydrant assemblies.

END OF SECTION

PART 1 - SCOPE OF WORK

Provide all labor, tools, materials, equipment and incidentals required to perform the work called for in this Section of the Specifications, including, but not necessarily limited to, the following:

- A. Preparation of subgrade, and installation of subbase and base materials prior to bituminous concrete construction.
- B. Testing laboratory services during the placement of base and sub-base to insure proper compaction prior to bituminous paving.

PART 2 - MATERIALS

- A. "Subbase" material for road trench repair shall conform to Section M.02.02 - Subbase, of Form 818.
- B. "Processed gravel base" material for road trench repair shall conform to Section M.02.03 - Gravel Base, Rolled Bank Gravel Surface and Traffic Bound Gravel Surface, of Form 818.

PART 3 – EXECUTION

- A. Just prior to installation, the area shall be thoroughly compacted to subgrade elevations as shown on the plans. Gravel fill shall be added or deleted to accomplish this task, as required. All soft and yielding material, and other portions of the subgrade which will not compact readily, shall be removed and replaced with suitable material.
- B. The road subbase shall be constructed in accordance with Sections 2.12.03 and 3.05 - Construction Methods, of Form 818. Road subbase shall be allowed to settle for a minimum 30 days prior to the placement of Permanent Trench Patch. All areas of settlement shall be brought to grade with road base material, and re- compacted prior to paving.
- C. Testing Laboratory Services- The Contractor shall provide, at no additional cost to the Owner, the services of an approved testing laboratory (ies) to take samples of materials and perform tests as required under this Contract or as ordered by the Engineer. Payment for these services shall be included in the contract unit price for temporary trench patch, and permanent trench patch. Contractor will notify on-call testing service company at least 24 hours in advance for compaction testing. Compaction tests are required on all base materials prior to placing asphalt and on bituminous concrete pavement during rolling operations. A minimum of six (6) satisfactory tests per material per lift are required.

PART 4 – METHOD OF MEASUREMENT

- A. This item shall not be measured individually, but instead shall be measured as part of the contract unit price for the permanent trench patch.

PART 5 – BASIS OF PAYMENT

- A. This item shall not be paid for individually, but instead shall be paid as part of the contract unit price for the permanent trench patch.

END OF SECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. The scope of work under this Section includes the placement of roadway subbase, roadway base material, temporary base material, tack coats, and the placement of bituminous pavement within the limits of trench work on town roadways and on other disturbed pavement areas as directed by the Engineer. The work also includes maintenance and repair of the temporary trench patch throughout its service life.

1.2 RELATED DOCUMENTS

- A. ConnDOT Form 818.

1.3 SUBMITTALS

- A. Submit batch plant certifications for all pavement.
- B. Submit representative gradation test, by a certified material testing laboratory, for processed aggregate base.
- C. Submit weight slips during delivery of pavement.

1.4 PROJECT / SITE CONDITIONS

- A. Immediately repair damaged or settled trench patch as directed by the Inspector.

1.5 SEQUENCING

- A. Place temporary trench patch over all trench work in paved Town roadways before the conclusion of each day, unless a longer duration is approved by the Owner.
- B. Do not leave any pits in paved highways over night or during any shutdown (weekends, holidays, winter, etc.). Backfill all excavations prior to daily or other shutdowns.
- C. If steel plates are used, add either hot mix bituminous concrete or cold patch on all edges of steel plate.

PART 2 - PRODUCTS

2.1 TEMPORARY TRENCH PATCH

A. Processed Aggregate Base:

1. Comply with ConnDOT Form 818, Section 3.04.02 and M.05.01.

B. Tack Coat:

1. Comply with ConnDOT Form 818, Section 4.06.02.

C. Bituminous Concrete:

1. Surface Course: Use (Hot Mix Asphalt) HMA S0.5 bituminous concrete. Comply with ConnDOT Form 818, Section 4.06.02.

PART 3 - EXECUTION

3.1 PAVEMENT SAW CUTTING

- A. Saw cut existing pavement throughout the length of all trench work.

3.2 TEMPORARY TRENCH PATCH

A. Preparation:

1. Saw cut full depth of existing pavement throughout the length of all trench work.
2. Prepare subgrade prior to placement of temporary pavement. Comply with ConnDOT Form 818, Paragraph 2.09.03.

B. Processed Aggregate Base:

1. Comply with ConnDOT Form 818, Section 3.04.03.

C. Bituminous Concrete:

1. Place tack coat on all existing bituminous-concrete faces (vertical and horizontal) along the trench work. Comply with ConnDOT Form 818, Section 4.06.03.

TEMPORARY TRENCH PATCH

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2. Place temporary bituminous concrete within the trench limits. Match new trench-pavement grades with existing pavement grades. Comply with ConnDOT Form 818, Section 4.06.03.

3.3 MAINTENANCE:

- A. Maintain temporary pavement patch throughout its service life, to the satisfaction of the Engineer and Owner.
- B. Repair or replace any damaged or deteriorated temporary pavement throughout its service life, at the direction of the Engineer and Owner.
- C. Any damaged or deteriorated areas identified by the Owner which are not promptly repaired by the Contractor, which require the Owner to make necessary repairs, will be billed to the Contractor by the Owner.

PART 4 - METHOD OF MEASUREMENT

4.1 PAVEMENT SAW CUTTING:

- A. This item will not be measured individually, but shall be included in the square yard measurement for Temporary Trench Patch, approved by the Engineer, and accepted by the Owner.

4.2 TEMPORARY TRENCH PATCH – TOWN ROADS

- A. Temporary Trench Patch – shall be measured as the actual number of square yards (SY) of HMA S0.5 bituminous concrete paving constructed in the field, and accepted by the Owner. The cost of all necessary materials and work, including but not limited to the placement of HMA S0.5 bituminous concrete pavement shall be included in the per SY cost of “Temporary Trench Patch”.

4.3 TEMPORARY TRENCH PATCH – DRIVEWAYS

- A. Temporary Trench Patch – shall be measured as the actual number of square yards (SY) of HMA S0.375 bituminous concrete paving constructed in the field, and accepted by the Owner. The cost of all necessary materials and work, including but not limited to the placement of HMA S0.375 bituminous concrete pavement shall be included in the per SY cost of “Temporary Trench Patch”. Tack Coat:

TEMPORARY TRENCH PATCH

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- B. This item shall not be measured individually, but instead shall be measured as part of the contract unit price for “Temporary Trench Patch”.

4.4 PROCESSED AGGREGATE BASE

- A. This item shall not be measured individually, but instead shall be measured as part of the contract unit price for “Temporary Trench Patch”.

PART 5 - BASIS OF PAYMENT

5.1 TEMPORARY TRENCH PATCH

- A. Temporary Trench Patch – shall be paid for at the Contract unit price for “Temporary Trench Patch”.

END OF SECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK:

- A. Provide all plant, materials, supplies, power, machinery, equipment, tools, superintendence, labor, overhead, profit, insurance, bonds, permits, shop drawings, design services (where required), and other services and accessories required to complete the work of this Section.
- B. The scope of work under this Section includes removal of temporary pavement and base material, saw cutting of existing pavement, bituminous concrete sidewalks, and placement of permanent bituminous-concrete pavement (including tack coats) within the limits of trench work on town roadways, or in new areas designated for pavement on the Drawings.

1.2 RELATED DOCUMENTS

- A. ConnDOT Form 818.

1.3 SUBMITTALS

- A. Submit weight slips during delivery of pavement.
- B. Product Test Data
 - 1. Submit product test data to the Engineer for the following items. All tests shall be conducted by a qualified material testing laboratory and sealed by a licensed professional engineer in the State of Connecticut.
 - 2. Submit batch plant certifications for all pavement types
 - 3. Density test results taken at mixing plant on the day of manufacture.

1.4 PROJECT / SITE CONDITIONS

- A. Immediately repair damaged or settled trench patch on town roadways, as directed by the Inspector or Owner.

1.5 SEQUENCING

PERMANENT PAVING AND TRENCH PATCH

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- A. Subbase shall be dry prior to the placement of Permanent Pavement.
- B. Permanent paving and trench patch shall take place no sooner than 30 days after the placement of temporary pavement and trench patch.

PART 2 - PRODUCTS

2.1 TACK COAT:

- A. Comply with ConnDOT Form 818, Article 4.06.02

2.2 BITUMINOUS CONCRETE ROADWAY:

- A. Base Course : Use (Hot Mix Asphalt) HMA S0.5. Comply with ConnDOT Form 818, Article 4.06.02 and M.04.
- B. Surface Course : Use (Hot Mix Asphalt) HMA S0.5. Comply with ConnDOT Form 818, Article 4.06.02 and M.04..

PART 3 - EXECUTION

3.1 PAVEMENT SAW CUTTING

- A. Saw cut existing pavement throughout the length of all trench work.

3.2 PREPARATION:

- A. Excavate to final subgrade and dispose of all temporary pavement and surplus material, then prepare final pavement-subgrade prior to placement of permanent trench-patch. Comply with ConnDOT Form 818, Paragraph 2.09.03.
- B. Remove and dispose of temporary pavement and surplus material immediately prior to, and on the same work-day as, placement of permanent trench patch.

3.3 BITUMINOUS CONCRETE:

- A. Place tack coat on all existing bituminous-concrete faces (vertical and horizontal) along the trench work. Comply with ConnDOT Form 818, Article 4.06.03.

PERMANENT PAVING AND TRENCH PATCH

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- B. Place permanent bituminous concrete within the trench limits. Match new trench-pavement grades with existing pavement grades. Comply with ConnDOT Form 818, Article 4.06.03.

PART 4 - METHOD OF MEASUREMENT

4.1 PAVEMENT SAW CUTTING:

- A. This item will not be measured individually, but shall be included in the measurement of "Permanent Paving and Trench Patch."

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4.2 PERMANENT PAVING AND TRENCH PATCH

- A. This item shall be measured as the actual number of square yards of HMA S0.5 bituminous concrete paving constructed in the field, and accepted by the Owner.

PART 5 - BASIS OF PAYMENT

5.1 PERMANENT PAVING AND TRENCH PATCH

- A. This item shall be paid for at the Contract unit price for "Permanent Paving and Trench Patch".

END OF SECTION

PART I-GENERAL

1.1 SUMMARY

A. Section Includes

1. The provision by the Contractor of all labor, tools, equipment and materials to furnish, install, chlorinate, maintain and remove 2-inch temporary watermain pipes.
2. The provision by the Contractor of all labor, tools, equipment and materials to furnish, install, chlorinate, maintain and remove 3/4-inch service hoses between the street bypass and customer.
3. The Contractor shall provide temporary service for all OWNER customers whose permanent service line is:
 - a. out of service due to the replacement or extension of the depth main;
 - b. out of service due to the cleaning and lining of the depth main;
 - c. out of service due to the depth main to which it is connected being served only by a depth main being rehabilitated;
 - d. out of service for any other reason in connection with work under this Contract.
 - e. Temporary services shall be provided to house #s 7, 11, 19, 27, 26 Frederick St. and # 89 Falls Ave.
4. The provision by the Contractor of on-call 24-hour per day, 7-days per week maintenance of the bypass system. Response time to complaints of problems with the bypass system shall be a maximum of one hour from time of initial contact.

B. Related Sections

1. Section 01110-Summary of Work.

1.2 SUBMITTALS

- A. Submit complete information on the type, material, manufacturer, year of manufacture, pressure rating and manufacturer-suggested fittings and installation procedures for all sizes of bypass piping and all temporary service hoses to be supplied on the project.
- B. Submit complete information as required in Paragraph A above for temporary fire hydrants to be supplied on the project. Include information on rated capacity versus pressure.
- C. Submit proposed bypass layouts, including supply points, during the course of the project and a minimum of two weeks prior to the field laying of the system.

- D. Submit proposed design for ramps over bypass hoses. The design for such ramps shall be in accordance with the Americans with Disabilities Act (ADA) regulations and as required by Paragraph 3.01.G of this section.

1.3 OWNER SUPPLIED MATERIALS AND WORK- None.

1.4 QUALITY ASSURANCE

- A. The Contractor shall only use piping, hose and related materials which are approved by the National Sanitation Foundation (NSF) for use in potable water transfer.
- B. All portions of the bypass system shall be disinfected using AWWA Standard Methods, as noted herein, prior to being put into use or reused. The Contractor shall put no element of the bypass system into use without OWNER'S approval after OWNER sampling and testing, including residual testing after flushing.

1.5 TASTE AND ODOR CONTROL

- A. Under certain conditions certain elements of the temporary bypass system may impart undesirable tastes and odors to water carried within the system. The Contractor and OWNER shall work together to ensure that the duration and amount of such imparted taste and odors are held to the absolute minimum. Methods are to be employed by the Contractor of ensure that this minimum is achieved. Contractor taste and odor control methods will include but not be limited to the following:
 - 1. The scheduling of the work, including service restorations, and allowance of time for OWNER depth main disinfection, such that no OWNER customer must be supplied by bypass system water for more than twenty-one (21) days.
 - a. These twenty-one days shall begin at the actual day that the customer is supplied only by bypass water and shall end when the disinfected depth main is available again to the customer.
 - b. House-to-house hook-ups by temporary hose are considered part of the bypass system.
 - c. The Contractor shall, or require any subcontractor working for him to, increase his work force such that the time frame established above is maintained. Any such work force addition shall be provided at no extra cost to the OWNER.
 - d. Failure of the Contractor to meet the maximum twenty-one-day time period may result in the OWNER completing whatever work is necessary at whatever labor rate necessary to return affected customers to depth main service. The cost of any work so performed by the OWNER will be deducted from money due to the Contractor, payable under any temporary bypass contract unit price or contract retainage, at the OWNER'S sole discretion.

2. The installation of bleeder valve hoses on the bypass system. Such hoses will be operated by, and at the discretion of, the OWNER in order to provide continual water movement within the bypass system. Bleeder valves and hoses shall be typical of those used as temporary service connections in the project and shall:
 - a. be located on 2-inch, 4-inch and 6-inch bypass piping;
 - b. be located on piping at intervals of approximately 300 feet, or as otherwise stipulated by the OWNER;
 - c. discharge into State or municipal storm sewer systems; a minimum of a 2-inch vertical drop shall separate the end of the bleeder hose and the receiving system;
 - d. be laid alongside the bypass piping at the pavement edge;
 - e. be constructed of materials of such strength to resist the loading, impacts, abrasion and pressures typically resisted by project bypass piping;
 - f. by the Contractor, be connected to any water meter for flow measurement provided by the OWNER;
 - g. be ramped over at drives and sidewalks as typical of other bypass piping and hoses and as specified herein;
 - h. be 3/4-inch in diameter and valved.
 3. The use of white or lighted colored heat-reflective tape or paint on bypass piping in order to reduce the solar rise in water temperature within dark colored bypass piping where such piping is determined by the Owner to be imparting unacceptable tastes or odors to the water.
- B. The OWNER reserves the right to reject and order the Contractor to remove and replace any temporary bypass piping or hose which, in the opinion of the OWNER, results in excessive customer taste and odor complaints. This work shall be performed at no additional cost to the OWNER.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Responsibility for Material Furnished by Contractor
1. The Contractor shall be responsible for any material furnished by him and shall replace, at his own expense, all such material found defective in manufacture or damaged in handling after delivery by the manufacturer, at no additional cost to the OWNER.
- B. Responsibility for Safe Storage
1. All pipe, fittings, valves and other accessories furnished by the Contractor shall be kept, stored and transported in such a manner so as to remain free from dirt and foreign material at all times.

PART 2-PRODUCTS

2.1 MATERIALS

- A. All components of the bypass system shall be capable of operating at the pressures which they will be subject to, including surge and temperature induced pressures, and adequate to withstand whatever forces, such as traffic loading, they will encounter. The work area has a maximum pressure gradient of 70 psi.
- B. All pipe, hose, fittings and all other materials supplied by the Contractor shall be new or in like-new condition. All valves used in the system shall be in excellent working condition and capable of completely shutting off flow when in the closed condition.
- C. Banding shall be used at all connections, splices, etc. The use of pipe or hose clamps on the bypass system will not be permitted.
- D. All components of the temporary bypass system shall be NSF approved for potable water transfer and delivery.
- E. Materials for ramps over bypass piping at driveways and other such areas shall be bituminous concrete, processed gravel or manufactured wheel ramps. If processed gravel is used, the Contractor shall provide for means to divert curb-line storm water away from the gravel in order to minimize washout during storm events.
- F. Materials for hose ramps shall be weather resistant. The ramp portion of these ramps shall have an anti-slip surface.

PART 3-EXECUTION

3.1 GENERAL

- A. The Contractor shall furnish, install, chlorinate, maintain and remove bypass and temporary service pipe and hose of the size required, as specified herein, to adequately serve water customers.
- B. All bypass shall be fed from two (2) sources unless a single feed allowance is made by the OWNER for a submitted bypass plan. In the event a bypass pipe is dead ended it shall terminate with a 2-inch valve for flushing and chlorination.
- C. Customers' service lines which will be out of service for a limited period of time, in the opinion of the OWNER, need not be bypassed but all other provisions regarding adequate notice and hours of shutdown shall be strictly adhered to.

- D. In general, bypass piping shall be laid along the side of the roadway adjacent to the curb line or edge of pavement line.
- E. At locations where the pipe is subject to minimal traffic, such as at driveways, the pipe shall be adequately protected by excavating and setting the pipe below grade or "ramping" it with materials defined in 2.01.E above.
- F. All bypass pipe 2-inches or larger which crosses the road, sidewalk, handicapped ramps, intersections or extends around the radius of an intersecting street shall be installed below the surface grade. All such crossings shall be repaired or restored by saw-cutting back the bituminous pavement a minimum of 12-inches prior to repaving.
- G. The Contractor shall ramp over all bypass hoses to provide for wheelchair access on affected sidewalks or other walkways. Ramping shall be in accordance with ADA (Americans with Disabilities Act) regulations. Ramps shall remain in place until the removal of the bypass hoses and shall be maintained at all times by the Contractor.
 - 1. This requirement shall apply to temporary service piping or hoses less than 2-inches in diameter.
 - 2. These ramps shall have a slope of 1-inch rise for each 12-inches in length and have an anti-slip surface. The hose ramps shall be constructed as shown in the Appendices or as approved by the OWNER.
- H. It is the sole responsibility of the Contractor to take all necessary precautions to avoid injury, damages or loss to the public and/or their property when installing, using, maintaining or removing any and all bypass lines. These precautions shall include, but are not limited to, "ramping", barricades and other devices. Any injury, damage or other loss to or of the public resulting from the Contractor's bypass system is the responsibility of the Contractor. Failure of the Contractor to fulfill this responsibility shall result in the OWNER making reparation from monies due the Contractor at the OWNER'S sole discretion. All barricades or signs in a walkway shall have a lower bar that can be detected by the visually impaired. The clearance from the surface to the lower bar must be no greater than 27-inches and as referenced in the Americans with Disabilities Act Section 4.4 Accessibility Guidelines.
- I. Unless otherwise noted herein or on the Drawings, two bypass piping lines shall feed services on any street. The minimum size of bypass supply piping is 2-inches. Four-inch piping shall be used for the entire length of the hydrant side of streets, unless otherwise allowed or directed by the OWNER. Six-inch bypass piping shall be used on the hydrant side of streets with a 16-inch or larger depth main, or anywhere else otherwise deemed necessary by the OWNER. The OWNER will notify the Contractor regarding the use of 6-inch bypass during review of Contractor bypass layout submittals. On cul-de-sacs or other

dead-ended streets, in general the Contractor will be permitted to use 2-inch bypass on the non-hydrant side of the street. This 2-inch piping shall be connected to the hydrant side 4-inch piping at the street's end.

- J. Bypass piping shall be installed in a neat manner and shall be substantially parallel with the curb line or edge of pavement.
- K. No bypass pipe or hose shall remain in place after November 1st, and none shall be put in place prior to April 15th unless specifically permitted by the OWNER.
- L. All bolts on bypass couplings shall be either installed on the inside of the curb area or covered with asphalt or similar material to minimize damage to tires of passing vehicles.

3.2 TEMPORARY FIRE HYDRANTS-None.

3.3 DISINFECTION

- A. All portions of the temporary bypass system shall be flushed to remove any dirt or other deleterious material and then disinfected in accordance with ANSI/AWWA Standard C651, latest revision, "AWWA Standard for Disinfecting Water Mains", prior to being put into use for potable water supply.
- B. Any portion of the bypass system removed from a disinfected and OWNER-approved section of bypass, shall be re-disinfected in accordance with 3.03.A prior to reuse. Any addition to an operating or disinfected section of bypass shall be, prior to inclusion, disinfected in accordance with 3.03.A above.
- C. Temporary service hoses may be disinfected off-site under procedures pre-approved by and witnessed by the OWNER. The Contractor shall provide a method acceptable to the OWNER for distinguishing disinfected and non-disinfected hoses. Temporary hoses to be disinfected off-site shall be disinfected in groups of 25 or more so as not to be an inspection burden to the OWNER. Off-site disinfection shall occur within five (5) miles of the project site. Hoses disinfected under this Section shall be transported to the project site with disinfected end plugs in place on both ends of the hose. No disinfected plug shall be removed until the time connection is made to the piping or customer.
- D. Temporary service hoses may also be disinfected as part of a temporary piping system disinfection.
- E. The OWNER will perform all chlorine residual and bacteriological sampling and laboratory testing of Contractor disinfected bypass. The Contractor shall give the OWNER 24-hours' notice for any sampling necessary.
- F. After OWNER has sampled the bypass, no section of the sampled system shall be opened, drained, repaired or otherwise penetrated without complete re-initiation of testing.

- G. After completion of testing, the OWNER will notify the Contractor of the results. The Contractor shall then flush the disinfected main until the water leaving the bypass system has a chlorine residual no higher than that generally prevailing in the distribution system, or is acceptable for domestic use.
- H. Short connections to the disinfected system may be made by the Contractor. Such connections shall be made in accordance with AWWA C651 Section 9.1, except that a short section shall be considered to be 10-feet or less in length and all associated disinfection shall be witnessed by the OWNER.
- I. Disinfection of repairs necessary to the in-use bypass system shall be made in accordance with Section 10 of AWWAC651.

3.4 PROTECTION AND DELINEATION OF THE BYPASS SYSTEM

- A. In order to protect and field delineate the bypass system, the Contractor shall provide and install the following:
 - 1. Road cones shall be placed in the curb line at all temporary service hose connections.
 - 2. Road cones shall be placed on both curb lines at road bypass crossings.
 - 3. Road cones shall be placed at a minimum of 50-feet intervals on both curb lines where bypass is laid.
 - 4. Road cones shall be placed at all bypass fittings which may result in personal property injury or damage.
 - 5. Road cones shall be clean and in good condition. Any cones deemed unsuitable by the OWNER shall be replaced at no additional cost to the OWNER.

PART 4-MEASUREMENT AND PAYMENT

- A. One complete system with lump sum payment.

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Provide all plant, materials, supplies, power, machinery, equipment, tools, superintendence, labor, overhead, profit, insurance, bonds, permits, shop drawings, design services (where required), and other services and accessories required to furnish and install the work of this Section, complete and in place.
- B. The work of this Section includes:
 - 1. Selective clearing and thinning of trees, brush, shrubbery, etc. Comply with ConnDOT Form 818, Article 9.52.01.
 - 2. Construction staking of all water mains and appurtenances in this Section. Comply with ConnDOT Form 818, Article 9.80.01.
 - 3. Trench excavation and backfill, excluding rock-in-trench excavation, but including removal and disposal of existing water mains and valves, miscellaneous pipes and other obstructions, existing pavement, curbs, and walks, etc. Comply with ConnDOT Form 818, Article 2.05.01.
 - 4. Design, installation, maintenance, operation, and protection of all pumping, bailing, draining, sheeting, shoring, and cofferdams necessary to successfully construct the work.
 - 5. The removal, handling, protection, and resetting of hedges, small trees, shrubbery, signs, posts, guide rails, mail boxes, and the like.
 - 6. The bracing of utility poles in close proximity to the excavation.
 - 7. Furnish and install water main pipe bedding.
 - 8. Furnish and install new water mains, tapping sleeves and tapping valves, gate valves, restrained joints, tees (excluding hydrant tees), bends, reducers, end caps, thrust blocks, cutting and capping of existing mains, insulation, magnetic indicating tape, and all other related fittings and work.
 - 9. Flush and disinfect new water mains and appurtenances.
 - 10. Provide combined pressure and leakage tests on the new water main and appurtenances.

1.2 RELATED DOCUMENTS

- A. The publications listed below form a part of this specification to the extent referenced. These publications are referred to in the text by the basic designation only.

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<u>Basic Designation</u>	<u>Document</u>
ANSI/AWWA	ANSI/AWWA Standards, latest edition, including all revisions and addenda
ConnDOT Form 817	State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction, Form 818 – 2020; including all latest revisions and addenda.
NSF-61	National Sanitary Foundation – Standard 61

1.3 SUBMITTALS

A. Shop Drawings

1. Prepare and submit shop drawings for the following items:
 - a. Trench dewatering system components.
 - b. Pressure and leakage testing system components.

B. Product Data

1. Procure and Submit product data for the following items:
 - a. 2” copper tubing and associated fittings
Type K, soft ASTM B280, ASTM B306
Standards – ASTM B819, ASTM B88

C. Samples

1. Procure and submit samples for the following items:
 - a. Gradation test from a certified material testing laboratory for water main bedding material.

D. Design Drawings

1. Prepare and submit the following design drawings. All design drawings shall be signed and sealed by an engineer registered in the State of Connecticut:

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- a. Excavation Plan - The excavation plan shall outline the methods and procedures that the Contractor will employ to successfully stabilize excavations, as required to construct the work.
- b. Trench Dewatering Plan - The trench dewatering plan shall outline the methods and procedures that the Contractor will employ to successfully dewater trenches and dispose of the dewatering wastewater, including measures for erosion control and sediment removal.

E. Product Test Data:

1. Submit product test data to the Engineer for the following items. All tests shall be conducted by a qualified material testing laboratory and sealed by a licensed professional engineer in the State of Connecticut.
2. Gradation test for water main bedding material.

F. Contractor Permits

1. Submit copies of the following Contractor-acquired permits to the Engineer:
 - a. All permits required by Federal, State, and Local authorities.

G. Miscellaneous Items

1. Prepare and submit the following miscellaneous items to the Engineer:
 - a. Potable water test results for each segment of water main tested.
 - b. Pressure and leakage test results for each segment of water main tested.

1.4 PROJECT CONDITIONS

- A. Coordinate the trench dewatering plan with the requirements outlined in the project's Soil Erosion and Sediment Control Plan and in any conditions set forth in the project's land-use permits.

1.5 SEQUENCING

- A. Provide written notice of all planned shutdowns to all effected customers, the Owner, and Engineer at least 24 hours prior to commencement of shutdown.
- B. Disinfect, flush, and conduct potable water tests before commencement of pressure and leakage testing.
- C. Coordinate sequencing of flushing, disinfection, and pressure and leakage testing with the Engineer.

PART 2 - PRODUCTS

2.1 TRENCH EXCAVATION

- A. Furnish appropriate equipment and products (as approved by the Engineer) for treatment and disposal of trench dewatering wastewater.
- B. Furnish materials and products required for safe and effective bracing and shoring of the trench excavation.

2.2 WATER MAIN BEDDING

- A. Comply with ConnDOT Form 818 Article M.03.01 - Item 2 (FINE AGGREGATE).

2.3 2" COILED COPPER TUBING

- A. Soft, annealed, seamless copper tubing conforming to ASTM B88, Type "K". Use compression joints conforming to ANSI standard B16.26.

2.4 UNDERGROUND WARNING TAPE

- A. Underground warning tape shall be durable magnetic indicating tape, designed to withstand underground exposure, blue in color, and printed with an appropriate warning message.

2.5 DISINFECTION AND FLUSHING

- A. Provide all tools, power, materials, and chemicals necessary to disinfect, test, flush, and de-chlorinate the water main and appurtenances, in conformance with AWWA Standards C600 and C651 and Standards stated in Section 19-13-B102 of Regulations of Connecticut State Agencies.

2.6 PRESSURE TESTING

- A. Provide all tools, materials, test plugs, caps, pumps, pipe connections, water meter, pressure gauges, and other equipment required to perform pressure and leakage testing in conformance with AWWA Standard C600.
- B. The gauge used in the pressure and leakage testing apparatus shall be a minimum of 4-inches in diameter and pressure increments shall not exceed 2 P.S.I.

PART 3 - EXECUTION

3.1 TRENCH EXCAVATION

- A. This item does not include rock-in-trench excavation.
- B. Comply with ConnDOT Form 818, Article 2.05.03.
- C. Clear and thin trees, brush, and shrubbery, as necessary to construct the work. Comply with ConnDOT Form 818, Article 9.52.03.
- D. Stake out all construction items. Comply with ConnDOT Form 818, Article 9.80.03.
- E. Remove and dispose of existing water mains and valves, miscellaneous pipes, other obstructions, and existing pavement, curbs, and walks, as necessary, to construct the work.

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- F. Design, install, maintain, operate and protect all pumping, bailing, draining, sheeting, shoring, and cofferdam facilities necessary to construct the work.
- G. Remove, handle, protect, and reset hedges, small trees, shrubbery, signs, posts, guide rails, mail boxes, and other site improvements, as necessary to construct the work.
- H. Brace utility poles in close proximity to the excavation, as necessary, to construct the work.

3.2 WATER MAIN BEDDING – 2” Copper

- A. Comply with ConnDOT Form 818, Article 6.51.03. Use Type II installation procedures.

3.3 UNDERGROUND WARNING TAPE

- A. Furnish and install continuous underground warning tape at the depth indicated in the Contract Drawings. Center the warning tape above new water mains. Departure from true centerline of water main shall not exceed six inches.

3.4 DISINFECTION AND FLUSHING

- A. Disinfect all new water mains completed under this Contract. Comply with AWWA Standard C600 and C651.
- B. Thoroughly flush all pipelines prior to the disinfection process.
- C. Install a double check-valve between the test-water source and the new water distribution system. Provide other safety measures as may be required.
- D. Following the disinfection process, thoroughly flush all pipelines before sampling for tests.
- E. Following the flushing process, retrieve and convey test samples to a certified water testing laboratory. Water samples shall be analyzed for coliform bacteria, heterotrophic plate count (HPC), and physical parameters (pH, Color, Odor, Turbidity), Total Chlorine Residual. To pass, test results must reveal total coliform (TC) = 0 and heterotrophic plate count (HPC) <100 colonies/mL.
- F. If, the Owner and/or Engineer determine that the disinfection process failed, repeat the entire disinfection process to the satisfaction of the Owner, at no cost to the Owner, and without extension of time for completion of the work.
- G. Dispose of all chlorinated test water in accordance with local, state, and federal regulations (which may require de-chlorination). Obtain all required discharge permits prior to start of the disinfection process.

3.5 PRESSURE AND LEAKAGE TESTING

- A. Conduct pressure and leakage testing on all new water mains completed under this contract. Comply with AWWA Standard C600. Minimum test pressure to be 150psi.
- B. If hydrants or blow-offs are not available for releasing air, excavate at high points, tap the main, and install a plug for air release. Install plug and backfill the excavation following successful completion of the test.
- C. If the section shall fail to pass the pressure and leakage test, locate, uncover, retest and repair or replace the defective pipe, fitting or joint, all at no cost to the Owner and without extension of time for completion of the work. Make additional tests and repairs until the section passes the specified tests.
- D. The Owner will provide at no charge to the Contractor, the necessary water for this initial pressure and leakage tests. If this initial test fails, the Owner will charge the Contractor for all subsequent required water.

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PART 4 - METHOD OF MEASUREMENT

- A. New water mains shall be measured as the actual linear feet of that size pipe measured in place along the centerline of the pipe installed in accordance with these Contract Drawings and Specifications, through pipe, fittings, valves, appurtenances, testing, and all other work not measured or paid for under any other item.
 - 1. Trench excavation, bedding, backfill, and the 2" blow-off shall be included in all of the above items.

PART 5-BASIS OF PAYMENT

- A. The water mains shall be paid for at the Contract Unit Price of the specified items.
Lineal feet of 2" copper tubing.

END OF SECTION

WATER SERVICE LINES

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PART 1 - GENERAL

1.1 SCOPE OF WORK

A. The scope of work under this section includes the following items:

1. Selective clearing and thinning of trees, brush, shrubbery, etc. Comply with ConnDOT Form 818, Article 9.52.01.
2. Construction staking of all construction work in this item. Comply with ConnDOT Form 818, Article 9.80.01.
3. Trench excavation and backfill, excluding rock-in-trench excavation, but including removal of existing water mains and valves, miscellaneous pipes and other obstructions, existing pavement, curbs, and walks, etc. Comply with ConnDOT Form 818, Article 2.05.01.
4. Design, installation, maintenance, operation, and protection of all pumping, bailing, draining, sheeting, shoring, and coffer damming facilities necessary to successfully construct the work.
5. The removal, handling, protection, and resetting of hedges, small trees, shrubbery, signs, posts, guide rails, mail boxes, and the like.
6. The bracing of utility poles in close proximity to the excavation.
7. Furnish and install pipe bedding.
8. Furnish and install new corporation stop, copper service lines, curb valve, curb box, magnetic indicating tape, and all other related fittings and work for water service lines.

1.2 RELATED DOCUMENTS

- A. ANSI/AWWA Standards, latest edition, including all revisions and addenda
- B. ConnDOT Form 818

1.3 SUBMITTALS

- A. Design and submit a trench dewatering plan, outlining the methods and procedures that the Contractor will employ to successfully dewater trenches and dispose of the dewatering wastewater. Prepare and submit shop drawings for trench dewatering system components.

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- B. Provide gradation test from a certified material testing laboratory for water main bedding material.
 - C. Manufacturer's standard drawing and/or catalog cut for corporation stop(s).
 - D. Manufacturer's standard drawing and/or catalog cut for curb stop/curb box assembly.
 - E. Product literature for copper tubing and compression fittings.
 - F. Sieve analysis and Modified Proctor density test on pipe bedding material.

1.4 PROJECT / SITE CONDITIONS

- A. Coordinate the trench dewatering plan with the requirements outlined in the project's Erosion and Sediment Control Measure and in any conditions set forth in the project's land-use permits.

1.5 SEQUENCING

- A. Coordinate sequencing of work with the Inspector.

PART 2 - PRODUCTS

2.1 WATER SERVICE LINE

- A. Corporation Stop:
 - 1. Comply with AWWA Standard C800.
 - 2. Corporations must be 1" with "cc" thread by compression.
 - 3. Acceptable manufacturers include:
 - a. Ford, Mueller, or equivalent manufacturer acceptable to the Owner.
Approval of substitutes is at the sole discretion of the Owner.
- B. Pipe Bedding Material: Comply with ConnDOT Form 818, Article M.03.01 - Item 2- FINE AGGREGATE - (c) - Gradation.
- C. Coiled Copper Tubing: Use 1") soft, annealed, seamless copper tubing conforming to ASTM B88, Type "K". Use compression joints conforming to ANSI Standard B16.26.

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2.2 CURBSTOP AND CURB BOX:

- A. Comply with AWWA Standard C800.
 - 1. Acceptable manufacturers include:
 - a. Ford, Mueller, or equivalent manufacturer acceptable to the Owner.
Approval of substitutes is at the sole discretion of the Owner.
- B. Curb Stops must be 1" compression by compression.
- C. Curb Boxes shall be one-piece telescoping with 36" rod.

2.3 FITTINGS:

- A. Use appropriate compression couplings conforming to ANSI Standard B16.26 to join lengths of new pipe and to join new pipe to existing service lines.

2.4 COUPLINGS:

- A. Use appropriate, compression couplings conforming to ANSI Standard B16.26 to join lengths of new pipe and to join new pipe to existing, small-diameter water mains.

PART 3 - EXECUTION

3.1 TRENCH EXCAVATION:

- A. This item does not include rock-in-trench excavation.
- B. Comply with ConnDOT Form 818, Article 2.05.03.
- C. Clear and thin trees, brush, and shrubbery, as necessary to construct the work. Comply with ConnDOT Form 818, Article 9.52.03.
- D. Stake out all construction items. Comply with ConnDOT Form 818, Article 9.80.03.
- E. Remove existing water mains and valves, miscellaneous pipes, other obstructions, and existing pavement, curbs, and walks, as necessary, to construct the work.
- F. Design, install, maintain, operate and protect all pumping, bailing, draining, sheeting, shoring, and coffer damming facilities necessary to construct the work.

WATER SERVICE LINES

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-
- G. Remove, handle, protect, and reset hedges, small trees, shrubbery, signs, posts, guide rails, mail boxes, and other site improvements, as necessary to construct the work.
 - H. Brace utility poles in close proximity to the excavation, as necessary, to construct the work.

3.2 CORPORATION STOP:

- A. Comply with AWWA Standards C600 and C800.

3.3 PIPE BEDDING:

- A. Comply with ConnDOT Form 818, Article 6.51.03. Use Type II Installation. Delete the dimensions referred to in Paragraph 6.51.03 and replace with the dimensions shown on the Contract Drawings. Delete references to “culverts” and replace with references to “water main pipe”.

3.4 COILED COPPER TUBING:

- A. Comply with AWWA Standard C600.
- B. Insulate as required on the Contract Drawings.
- C. Provide four and one-half (4-1/2') feet of cover, minimum, unless directed otherwise by the Engineer or Owner. Notify Engineer and Owner immediately of any existing service lines with less than four and one-half feet of cover.
- D. No joints in the new service lines are allowed between the corporation stop and the curb stop unless the distance between the two exceeds 100 ft.
- E. Form all bends with tools specifically designed for this purpose.
- F. Prevent soil and other matter from entering the tubing and fittings.

3.5 CURBBOX / CURB STOP:

- A. Comply with AWWA Standards C600 and C800.

WATER SERVICE LINES

02-670-5

3.6 FITTINGS:

- A. Comply with ANSI Standard B16.26. Contractor shall be prepared to connect new 1" or 2" copper tubing to whatever size and material water service piping is found in the field.

3.7 UNDERGROUND WARNING TAPE

- A. Furnish and install continuous underground warning tape at the depth indicated in the Contract Drawings. Center the warning tape above new water mains. Departure from true centerline of water main shall not exceed six inches.

3.8 DISINFECTION AND FLUSHING

- A. Disinfect all new water mains completed under this Contract. Comply with AWWA Standard C600 and C651.
- B. Thoroughly flush all pipelines prior to the disinfection process.
- C. Install a double check-valve between the test-water source and the new water distribution system. Provide other safety measures as may be required.
- D. Following the disinfection process, thoroughly flush all pipelines before sampling for tests.
- E. Following the flushing process, retrieve and convey test samples to a certified water testing laboratory. Water samples shall be analyzed for coliform bacteria, heterotrophic plate count (HPC), and physical parameters (pH, Color, Odor, Turbidity), Total Chlorine Residual. To pass, test results must reveal total coliform (TC) = 0 and heterotrophic plate count (HPC) <100 colonies/mL.
- F. If, the Owner and/or Engineer determine that the disinfection process failed, repeat the entire disinfection process to the satisfaction of the Owner, at no cost to the Owner, and without extension of time for completion of the work.
- G. Dispose of all chlorinated test water in accordance with local, state, and federal regulations (which may require de-chlorination). Obtain all required discharge permits prior to start of the disinfection process.

3.9 PRESSURE AND LEAKAGE TESTING

- A. Conduct pressure and leakage testing on all new water mains completed under this contract. Comply with AWWA Standard C600.

WATER SERVICE LINES

02-670-6

-
- B. If hydrants or blow-offs are not available for releasing air, excavate at high points, tap the main, and install a plug for air release. Install plug and backfill the excavation following successful completion of the test.
 - C. If the section shall fail to pass the pressure and leakage test, locate, uncover, retest and repair or replace the defective pipe, fitting or joint, all at no cost to the Owner and without extension of time for completion of the work. Make additional tests and repairs until the section passes the specified tests.
 - D. The Owner will provide at no charge to the Contractor, the necessary water for this initial pressure and leakage tests. If this initial test fails, the Owner will charge the Contractor for all subsequent required water.

PART 4 - METHOD OF MEASUREMENT

4.1 WATER SERVICE LINE

- A. "Water service line" shall include all labor and materials to install the service lines between the main and locations shown on the plan including the water main tap, corporation stop, curb stop and curb box, including connection to existing water service lines. All of these shall be included in the measurement of the linear footage of installed water service line, accepted for use by the Owner, for 1" Water ServiceLines.

PART 5 - BASIS OF PAYMENT

5.1 WATER SERVICE LINE

- A. These items, including but not limited to excavation, pipe bedding and trench backfill, water main tap, corporation, water service line tubing, curb stop and curb box, and connection to existing water service line, shall be paid for at the contract linear foot cost for each size of water service line installed.

1" Water Service Line	LF
-----------------------	----

END OF SECTION

PART 1 - GENERAL

1.1 SCOPE OF WORK:

- A. The scope of work in this Section includes the following items:
 - 1. Furnish and place topsoil in areas designated on the Contract Drawings. Comply with ConnDOT Form 818, Article 9.44.01.
 - 2. Establish turf in areas designated in the Contract Drawings. Comply with ConnDOT Form 818, Article 9.50.01. Erosion control matting is not required.

1.2 RELATED DOCUMENTS

- A. ConnDOT Form 818.

1.3 SUBMITTALS

- A. Material certification for topsoil.
- B. Material certifications for grass seed, lime, fertilizer, and mulch.

1.4 PROJECT / SITE CONDITIONS

- A. No special conditions apply.

1.5 SEQUENCING

- A. Regrade areas disturbed by construction activities and establish turf immediately upon completion of subsurface construction.

PART 2 - PRODUCTS

2.1 GRASS SURFACE RESTORATION

- A. Topsoil: Comply with ConnDOT Form 818, Article 9.44.02.
- B. Turf Establishment: Comply with ConnDOT Form 818, Article 9.50.02.

PART 3 - EXECUTION

3.1 GRASS SURFACE RESTORATION:

- A. Topsoil: Comply with ConnDOT Form 8 Article 9.44.03.
- B. Turf Establishment: Comply with ConnDOT Form 818, Article 9.50.03.

PART 4 - METHOD OF MEASUREMENT

4.1 GRASS SURFACE RESTORATION

- A. This item shall be measured as the actual square yard finished surface area that has developed sufficient seed germination and turf establishment, as determined by the Engineer, in accordance with the limits shown on the Contract Drawings and Specifications.

PART 5 - BASIS OF PAYMENT

5.1 GRASS SURFACE RESTORATION

- A. This item shall be paid for at the Contract unit price for “Grass Surface

Restoration” END OF SECTION

PROPOSAL

Description/Unit Price	Estimated Quantities	Computed Totals
Item # 1 – Mobilization		
The unit price of		
_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	1LS	\$ _____
Item # 2 – Water Pollution Control (Soil Erosion)		
The unit price of		
_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	1LS	\$ _____
Item # 3 – Sedimentation Control Systems		
The unit price of		
_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	1LS	\$ _____
Item # 4 – Catch Basin Protection		
The unit price of		
_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	1LS	\$ _____
Item # 5 – Maintenance & Protection of Traffic		
The unit price of		
_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	1LS	\$ _____
Item # 6 – Traffic Person		
The unit price of		
_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	5 HRS	\$ _____

Description/Unit Price	Estimated Quantities	Computed Totals
------------------------	-------------------------	--------------------

Item # 7 – Rock -In-Trench Excavation

The unit price of

_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	10 CY	\$ _____

Item # 8 – Borrow

The unit price of

_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	10 CY	\$ _____

Item # 9 – Temporary Trench Patch

The unit price of

_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	50 SY	\$ _____

Item # 10 – Permanent Trench Patch

The unit price of

_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	140 SY	\$ _____

Item # 11 – Temporary Bypass System

The unit price of

_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	1 LS	\$ _____

Item # 12 – Water Distribution System

The unit price of

_____ Dollars		
And _____ Cents		
(\$ _____) per _____.	275LF	\$ _____

Item # 13 – Water Service Line

The unit price of

_____ Dollars
And _____ Cents
(\$ _____) per _____.

60 LF

\$ _____

Item # 14 – Grass Surface Restoration

The unit price of

_____ Dollars
And _____ Cents
(\$ _____) per _____.

50 SY

\$ _____

**TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT 06795**

BID PROPOSAL

**Frederick Street - Water Main Replacement
Watertown Water and Sewer Authority**

BID OPENING: 11:00 a.m., Tuesday, September 27, 2022

**TO: Donna L. Ford, Purchasing Agent
Town of Watertown
Watertown Town Hall
61 Echo Lake Road
Watertown, CT 06795**

The undersigned, as bidder, agrees to furnish equipment, labor and materials for the Frederick Street Water Main Replacement as specified herein and declares that no person or persons, other than those named herein, are interested in this Proposal; that this Proposal is made without collusion with any person, firm, or corporation; that he has carefully examined the location of the proposed work herein referred to; that no person or persons acting in any official capacity for the Town is directly or indirectly interested therein or in any portion of the profit thereof; and that he proposes and agrees, if this Proposal is accepted, to provide all necessary equipment, tools, labor and deliver and to do all work and furnish all materials specified in the manner and time therein prescribed, and according to the requirements of the Town as therein set forth, and that he will take in full payment therefor, the following unit prices and lump sums, to wit:

FIRM _____
Name

Street

City State Zip Code

NAME _____
Please Print

TELEPHONE NUMBER _____

FAX NUMBER _____

EMAIL ADDRESS _____

SIGNED _____ DATE _____

PLEASE

IT IS A REQUIREMENT OF
THIS BID THAT EACH
PROPOSAL SUBMITTED
MUST HAVE A DUPLICATE
COPY ATTACHED.

YOUR COOPERATION IS
APPRECIATED

Payment Terms _____

Time to Completion _____ Working Days

Warranty _____

Have you taken any exceptions or have you deviated from our printed specification and if so, are such suggested changes clearly noted on the page provided for exceptions to specifications?

___ yes

___ no

This image shows a full page of blank white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for writing or drawing. There are no margins, text, or other markings on the paper.

RECEIPT OF ADDENDA

ADDENDUM #

SIGNATURE

DATE

- | | | |
|----|-------|-------------|
| 1. | _____ | ___/___/___ |
| 2. | _____ | ___/___/___ |
| 3. | _____ | ___/___/___ |
| 4. | _____ | ___/___/___ |

NAME OF BIDDER: _____

OFFICIAL ADDRESS: _____

PHONE NUMBER: _____

BY: _____ TITLE: _____
(Please Print)

DATE: _____

SIGNATURE: _____

PROPOSED SUBCONTRACTORS

FIRM _____
Name

Street

City State Zip Code

CONTACT _____ TELEPHONE _____
Please Print
TYPE OF WORK TO BE PERFORMED _____

.....
FIRM _____
Name

Street

City State Zip Code

CONTACT _____ TELEPHONE _____
Please Print
TYPE OF WORK TO BE PERFORMED _____

.....
FIRM _____
Name

Street

City State Zip Code

CONTACT _____ TELEPHONE _____
Please Print
TYPE OF WORK TO BE PERFORMED _____

REFERENCES

The Bidder is required to fill out the following form to enable the Owner to make inquiries and judgment as to the Bidder's experience, skill, available financial resources, credit and business standing.

1. Number of years the Bidder has been in business as a Contractor: _____.

2. List three (3) projects of similar in nature to the project described herein that the Bidder has completed along with the approximate construction cost. Include the name, address and telephone number of a reference for each project.

3. List projects presently under construction by the Bidder, dollar volume of the Contract and percent completed.

4. Has the Bidder ever failed to complete work awarded to him; and if so, state where and why.

5. Does the Bidder plan to sublet any part of this work; and if so, give details.

6. List equipment the Bidder owns that is available for this project.

7. List equipment the Bidder plans to rent or purchase for this project.

8. If the Bidder has worked under the direction of a Consulting Engineer, list recent projects with the name, address and telephone number of the Consultant.

9. List name, address and telephone number for the following:

Surety:

Bank:

Major Material
Supplier:

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

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

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

(Name of Owner)

(Address of Owner)

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

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

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

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

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

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

ATTEST:

Principal

(Principal) Secretary
(SEAL)

By _____(s)

(Witness as to Principal)

(Address)

(Address)

Surety

ATTEST:

(Surety) Secretary
(SEAL)

By _____
Attorney-in-Fact

(Witness as to Surety)

(Address)

(Address)

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

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

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

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

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

(Name of Owner)

(Address of Owner)

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

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

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

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

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

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

ATTEST:

(Principal) Secretary
(SEAL)

(Witness as to Principal)

(Address)

Principal

By _____(s)

(Address)

ATTEST:

(Surety) Secretary
(SEAL)

(Witness as to Surety)

(Address)

Surety

By _____
Attorney-in-Fact

(Address)

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

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