

SECTION C

BID PROPOSAL

**PHASE VII-B WATER MAIN REPLACEMENTS
VILLAGE OF TARRYTOWN, NEW YORK
CONTRACT # 2023-07**

TO:

Village of Tarrytown
Office of the Village Clerk
One Depot Plaza
Tarrytown, NY 10591

Bid Submitted By:

(Name)

(Address)

(Telephone #)

(Federal ID #)

1. I/We do hereby declare that I/we have carefully examined the Instructions to Bidders, the Plans, Profiles and other drawings and the Specifications relating to the above entitled matter and the work, and have also examined the site.
2. I/We do hereby offer and agree to furnish all materials, to fully and faithfully construct, perform and execute all work in the above titled matter in accordance with the Plans, Drawings, and Specifications relating thereto, and to furnish all labor, tools, implements, models, forms, transportation and materials necessary and proper for the purpose for the price/prices as given on the bid forms.
3. I/We do hereby declare that the prices so stated cover all expenses of every kind incidental to the completion of said work, and the contract therefor, including all claims that may arise through damages or any other cause whatsoever.
4. I/We do hereby agree that I/we will execute a contract therefor, containing all the terms, conditions, provisions, and covenants necessary to complete the work according to the Plans and Specifications therefor within fifteen (15) business days after the award of the contract, and if I/we fail to execute said contract within said period of time, that the Village Board shall have the power to rescind said award and also that the said Board shall retain the proceeds of the certified check, or require the payment of the sum of the bid bond. The Contract execution will serve as the official notification to commence work.
5. I/We do also declare and agree I/we will commence the work within five (5) days after the contract execution and will complete the work fully and in every respect on or before the time specified in said contract and do authorize the said Board, in case of failure to complete the work within such specified time, to employ such men, equipment and materials as may be necessary for the proper completion of said work and to deduct the cost thereof from the amount due under the contract. I/we further agree that the Owner may deduct for liquidated damages the sums set forth in the Special Conditions if I/we fail to complete the work within the time limits

specified.

6. I/We hereby affirm that by submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under the penalty of perjury, that to the best of knowledge and belief;
 - (a) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; and
 - (b) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
 - (c) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition; and
 - (d) No member of the Village Board or any officer or employee of the Village of Tarrytown, New York, or person whose salary is payable in whole or in part from the said Village Treasury is, shall be or become interested, directly or indirectly, as a contracting party, partner, stockholder, surety or otherwise, in this bid, or in the performance of the Contract, or in the supplies, materials or equipment and work or labor to which it relates, or in any portion of the profits thereof.
7. I/We hereby further agree that this proposal is a firm bid and shall remain in effect for a period of at least forty five (45) calendar days from the date of the opening bids, and that within said period of forty five (45) days, the Village will accept or reject this proposal, or this time period may be extended by mutual agreement.
8. I/We do hereby declare that, if this is a corporate bid, I have been duly authorized to act as the signator on this proposal in behalf of this corporation.
9. I/We hereby affirm that I/we will adhere to the requirements of the attached "Affirmative Action Certification."
10. I/We hereby affirm, under penalty of perjury, the truth of all statements in this proposal.
11. I/We will accept, in full payment for the completed work, the following unit prices as my/our base bid.

SECTION C (continued)
 BID PROPOSAL (continued)

Martling Avenue – Water Main

Item No.	Item Description with Unit or Lump Sum Price in Written Words	Estimated Quantity & Unit	Unit Bid Price (Figures)	Total Bid Item Price (Figures)
1.	Mobilization and Demobilization @ _____ _____ Dollars and _____ Cents LUMP SUM	1 L.S.		
2.	Furnish and Install All Water Main, Fittings, Services, Earthwork, Pavement, and Associated Labor on Martling Avenue @ _____ _____ Dollars and _____ Cents LUMP SUM	1 L.S.		
3.	Rock Excavation @ _____ _____ Dollars and _____ Cents PER CUBIC YARD	210 CY		
4.	Furnish and Install Additional Cement Lined Ductile Iron Fittings @ _____ _____ Dollars and _____ Cents PER POUND	1,200 POUNDS		
5.	Disinfection, Pressure and Bacteria Testing of Water Mains @ _____ _____ Dollars and _____ Cents LUMP SUM	1 L.S.		
6.	Maintenance and Protection of Traffic on Martling Avenue @ _____ _____ Dollars and _____ Cents LUMP SUM	1 L.S.		
7.	Test Pits @ _____ _____ Dollars and _____ Cents EACH	10 EA.		
8.	Owner's Contingency Allowance for Miscellaneous Additional Work @ Fifty-Thousand Dollars and Zero Cents NOT TO EXCEED	1 NOT TO EXCEED	N/A	\$50,000

ADD ALTERNATE: White Plains Road Route 119 – Water Main

Item No.	Item Description with Unit or Lump Sum Price in Written Words	Estimated Quantity & Unit	Unit Bid Price (Figures)	Total Bid Item Price (Figures)
A1.	Mobilization and Demobilization	1		
	@ _____ _____ Dollars and _____ Cents LUMP SUM	L.S.		
A2.	Furnish and Install All Water Main, Fittings, Services, Earthwork, Pavement, and Associated Labor on White Plains Road	1		
	@ _____ _____ Dollars and _____ Cents LUMP SUM	L.S.		
A3.	Rock Excavation	140		
	@ _____ _____ Dollars and _____ Cents PER CUBIC YARD	CY		
A4.	Furnish and Install Additional Cement Lined Ductile Iron Fittings	1,200		
	@ _____ _____ Dollars and _____ Cents PER POUND	POUND		
A5.	Disinfection, Pressure and Bacteria Testing of Water Mains	1		
	@ _____ _____ Dollars and _____ Cents LUMP SUM	L.S.		
A6.	Maintenance and Protection of Traffic on White Plains Road (In Accordance with NYSDOT Requirements)	1		
	@ _____ _____ Dollars and _____ Cents LUMP SUM	L.S.		
A7.	Test Pits	5		
	@ _____ _____ Dollars and _____ Cents EACH	EA.		
A8.	Owner's Contingency Allowance for Miscellaneous Additional Work	1	N/A	\$50,000
	@ Fifty-Thousand Dollars and Zero Cents NOT TO EXCEED	NOT TO EXCEED		

11. I/We will accept, in full payment for the completed base bid work (**Martling Avenue**), the following **total** lump sum price as my/our total bid.

Total Amount in Figures: \$ _____

Total Amount in Words

(Legal Name of Bidder) Date: _____

(Authorized Signature)

Corporate Seal
(if incorporated)

Bidder acknowledges receipt of Addenda as follows:

(Signature)

(Signature)

(Signature)

11.a. I/We will accept, in full payment for the completed add alternate work (**ADD ALTERNATE: White Plains Road Route 119**), the following **total** lump sum price as my/our total bid.

Total Amount in Figures: \$ _____

Total Amount in Words

(Legal Name of Bidder) Date: _____

(Authorized Signature)

Corporate Seal
(if incorporated)

Bidder acknowledges receipt of Addenda as follows:

(Signature)

(Signature)

(Signature)

STATEMENT OF QUALIFICATIONS

The following is a list of places where we have performed work of similar character and magnitude, together with references:

LOCATION	DESCRIPTION OF WORK	APPROXIMATE COST	NAME & PHONE OF ENGINEER/OWNER

The full name and places of residence of all persons and parties interested as principals in the foregoing proposal are as follows:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

AFFIRMATIVE ACTION CERTIFICATION

A bidder will not be eligible for award of a contract under this Invitation for Bids unless such a bidder has submitted as part of its bid the following certification, which will be deemed a part of the resulting contract:

BIDDERS' CERTIFICATION

_____ certifies that:

(Bidder)

1. They intend to use the following listed construction trades in the work under the contract _____

_____ and

2. a. As to those trades set forth in the preceding paragraph one hereof for which it is eligible under Part 1 of these Bid Conditions for participation in the Westchester County Plan, it will comply with the Westchester County area within the scope of coverage of the Plan, those trades being:

_____ and/or

b. as those trades for which it is required by these Bid Conditions to comply with Part II of these Bid Conditions, it adopts, the minimum minority manpower utilization goals and the specific affirmative actions steps contained in said Part II, for all construction work (both state and non-state) in the Westchester County area subject to these Bid conditions, those trades being:

_____ and/or

3. they will obtain from each of their subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the subcontractor certification required by these Bid Conditions.

NON-COLLUSIVE BIDDING CERTIFICATION

Date: _____

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

- (1) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
- (2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
- (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

I hereby affirm under the penalties of perjury that the foregoing statement is true.

Company

By

Title

Address

Phone

INDIVIDUAL ACKNOWLEDGMENT

STATE OF NEW YORK)
) SS:
COUNTY OF WESTCHESTER)

On this _____ day of _____, in the year 20 ____,
before
me personally came _____ to
be known and known to me to be the person described in and who executed the foregoing
instrument, and he acknowledged to me that he executed the same.

Notary Public

PARTNERSHIP ACKNOWLEDGMENT

STATE OF NEW YORK)
) SS:
COUNTY OF WESTCHESTER)

On this _____ day of _____, in the year 20 ____,
before me personally came a member of the co-partnership of

_____, to me known and known to
me to be the person described in and who executed the foregoing instrument, and he
acknowledged to me that he executed the same as and for the act and deed of the said co-
partnership.

Notary Public

CORPORATION ACKNOWLEDGMENT

STATE OF NEW YORK)
) SS:
COUNTY OF WESTCHESTER)

On this _____ day of _____, in the year 20 ____, before
me personally came _____ to me known, who, being by
me duly sworn, did depose and say that he resides in/at _____,
that he is the _____ of the _____

_____, the corporation described in and
which executed the foregoing instrument, that he knows the corporate seal of the said
corporation, that the seal affixed to the said instrument is such corporate seal; and that it
was so affixed by order of the Board of Directors of the said corporation, and that he signed
his name thereto by like order.

Notary Public

SECTION 01 20 25

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This Section describes the measurement and payment for the Work to be completed under each item in Section C – Bid Proposal, which may also be referred to as “pay item”.
- B. Payment procedures are in accordance with the Agreement, Article 111 of the General Conditions, the Supplementary Conditions (if any), and the General Requirements.
- C. Measurement: Contractor shall be responsible for measurement, subject to review and approval by the Engineer or Owner in accordance with the General Conditions, the Supplementary Conditions (if any), and the General Requirements, except as otherwise specified.
- D. The Work described in each pay item shall be as described in the Specifications and shown on the Drawings and not included in other pay items.
 - 1. Pay item descriptions are general and may not specifically describe all associated Work or elements thereof, do not constitute Specifications, and do not supersede the content of the Specifications and Drawings.
 - 2. Review the Specifications and Drawings for Work associated with each pay item. Claims for being unfamiliar with the content of the Specifications and Drawings will not be considered.
- E. The following Work is not specifically described or designated as a pay item, is considered incidental to all pay items, and shall not be measured separately for payment.
 - 1. Division 01 General Requirements EXCEPT those items included in Mobilization/Demobilization and included as a separate pay item.
 - 2. Materials, equipment, and services necessary to verify existing field conditions and the location, size, type, material, and orientation of existing pipes and utilities shown on the Drawings excluding test pits.
 - 3. Field and laboratory testing and reporting by independent laboratory, including but not limited to compaction of backfill materials; aggregate gradation; and concrete testing

- F. Payment will not be made for restoration of areas disturbed by the Contractor outside the limits of Work.
- G. Payment will only be made for those utility services, including water and fire services, specifically identified for replacement on the Drawings. Relocation or replacement for the Contractor’s convenience or due to breakage by the Contractor of any other utility services shown on the Drawings, or at locations which could reasonably be assumed, shall be at no cost to Owner.
- H. Design, installation and removal of excavation support systems, temporary and permanent utility/structure support systems associated with a pay item shall be considered incidental to that pay item.
- I. Additional dewatering and erosion control (including installation, operation, maintenance, removal and offsite disposal of erosion control devices) associated with a pay item shall be considered incidental to that pay item.

1.02 MEASUREMENT AND PAYMENT BASIS – BASE BID (MARTLING AVENUE)

ITEM 1: Mobilization/Demobilization	
Measurement	Portion of Work completed and accepted
Payment	Percent of lump sum price based on Schedule of Values
Schedule of Payment	50% at Project commencement - 25% at Substantial Completion; 25% at Final Completion
Includes;	
<ul style="list-style-type: none"> • Delivery to and removal of equipment from the Project Site, • Temporary utilities, • Facilities and controls, • Obtaining necessary permits including associated fees, • Insurance and bond costs, • Signage, • Development of pre-construction schedules and plans required by the General Conditions, 	
Supplementary Conditions and General Requirements;	
<ul style="list-style-type: none"> • Necessary pre-construction investigations, • Verifying existing field conditions, • Coordination, • Site clean-up, restoration and closeout. 	

ITEM 2: Furnish and Install All Water Main, Fittings, Services, Earthwork, Pavement, and Associated Labor on Martling Avenue	
Measurement	Portion of Work completed and accepted
Payment	Percent of lump sum price based on Schedule of Values
Schedule of Payment	50% at Project commencement - 25% at Substantial Completion; 25% at Final Completion
<p>All labor, equipment, tools, and materials to furnish and install all water main, fittings, services, earthwork, pavement, and associated labor, including</p> <ul style="list-style-type: none"> • Water Main <ul style="list-style-type: none"> ○ Removing and disposing of existing pipe where required ○ Capping and abandoning existing water mains where required ○ Installing restraining thrust rods ○ Pipe insulation where required ○ Connecting to existing water mains • Fittings <ul style="list-style-type: none"> ○ Mega-lug fittings ○ All fittings (tees, bends, crosses, couplings, reducers, offsets, and solid sleeves) as specified herein or on the drawings or as needed in response to unanticipated field conditions, complete in place. All fittings shall be considered incidental to water main installation and no separate payment shall be made for water main fittings. ○ Provision of valve and valve box materials ○ Cutting valves into existing mains where required ○ Provision of fittings, pipe, valves and hydrants needed for hydrant assemblies, including the new tee on the water main, pipe to connect the water main to the hydrant assembly, hydrant valves as specified on the drawings, the hydrant body, and bends as part of the hydrant assembly. • Services <ul style="list-style-type: none"> ○ Service piping ○ Curb stops and boxes ○ Tapping pipe ○ Coordination with property owners • Earthwork <ul style="list-style-type: none"> ○ Excavation ○ Removing and disposing of excess earthwork material ○ Excavation and replacement of materials unsuitable for pipe or structure subgrade or trench backfill and compaction. Unsuitable material shall be as defined in Section 31 00 00. Unsuitable materials shall be removed and replaced with suitable materials as defined in Section 31 00 00. ○ Contractor shall be responsible for measurement of unsuitable material quantities removed, subject to review and approval by the engineer. ○ Shoring and bracing ○ Dewatering 	

- Pipe bedding
- Blanket, backfill, and compaction
- Excavating around existing utilities
- Support of existing utilities during excavation
- Pavement
 - Saw cutting
 - Disposal of removed pavement
 - Grading, fine grading, and compacting gravel sub-base
 - Emulsion,
 - Bituminous tack coat
 - Adjusting of roadway castings,
 - Placement and compaction of 4-inches of pavement courses in required lift depths,
 - Restoring pavement markings
 - Temporary trench pavement
 - Excludes any roadway restoration required in response to incidental damage to roadways during construction that are unrelated to anticipated excavations within the sawcut limits specified on the drawings. Includes only roadway restoration as required in accordance with the contract drawings in areas where excavation for new utilities is required.
- Associated Labor
 - Loam and seed for restoration of trenches in grass areas
 - Tree trimming or other clearing, grubbing, or landscaping work done as part of construction
 - Removing and replacing signs, fences, and mailboxes
 - Removing and resetting granite curbs
 - Replacement of bituminous and concrete curbing
 - Removing and resetting guard rails
 - Painting hydrant in accordance with local requirements,
 - Provision of temporary inlet protection
 - Routine maintenance and removal of sediment accumulation in inlet protection
 - Regular replacement of sedimentation sacks as required or directed for inlet protection
 - Cleaning catch basin sumps of any sediment allowed to enter the drainage system due to negligence of maintenance
 - All other incidentals necessary to furnish and install hydrant assemblies, complete in place, as specified, shown on the Drawings or required by field conditions.

ITEM 3: Rock Excavation	
Measurement	Per cubic yard
Payment	Unit price per cubic yard
Schedule of Payment	Monthly based on progress
<p>Includes all labor, services, tools, equipment, and materials for removing, legally disposing, and replacing with suitable backfill ledge rock and boulder greater than 1 cubic yard. Excludes rock removed outside of pay limits. Excludes gravel and rocks/boulders less than 1 cubic yard in size. This includes but is not limited to drilling, blasting, hydraulic hammer, barring or wedging, removal, and disposal of the rock and replacement as necessary with gravel backfill material as described in the Specifications or directed by the Owner. If blasting is used, all blasting activities including but not limited to pre-blast survey, notifications, monitoring during blasting, fire department details, post-blast survey, and insurance are considered incidental to this item. Excludes pavements and pavement foundations.</p>	

ITEM 4: Furnish and Install Additional Cement Lined Ductile Iron Fittings	
Measurement	Ductile iron fittings (tees, bends, crosses, couplings, reducers, off-sets and solid sleeves) complete in place shall be measured by the pound based on tabular weights obtained from current ANSI Specifications. The weight of the fittings shall not include the weight of any glands, megalugs, bolts, nuts, gaskets and/or accessories. Glands, megalugs, bolts, nuts, gaskets, and/or accessories shall be considered incidental to the fitting.
Payment	Unit price per pound
Schedule of Payment	Monthly based on quantity installed, tested, and accepted.
<p>All labor, equipment, tools and materials to furnish and install fittings on new and existing water mains, clearing and grubbing, saw cutting, excavation, removing and disposing of excess materials, shoring/bracing, dewatering, removing and disposing existing pipe, valves and appurtenances, plugging and capping existing water mains abandoned in place, restraining thrust with rods, mega-lug fittings, bedding and backfill, connecting existing water mains (as applicable), compaction, crossing of underground utilities, and all other incidentals necessary to furnish and install the fittings, complete in place, as specified, shown on the Drawings or required by field conditions. Excludes all fittings included in ITEM 2: Furnish and Install All Water Main, Fittings, Services, Earthwork, Pavement, and Associated Labor on Martling Avenue and excludes all fittings shown in the drawings. Includes only fittings required for changes in the alignment approved by the Engineer or Owner.</p>	

ITEM 5: Disinfection, Pressure and Bacteria Testing of Water Mains	
Measurement	Percent of total installed water main length tested and passed
Payment	Lump Sum
Schedule of Payment	Monthly based on progress
<p>All labor, equipment, tools and materials necessary to satisfactorily disinfect, pressure test and bacteria test water mains, including</p> <ul style="list-style-type: none"> • Furnishing and installing temporary blow-off/sample lines, • Flushing, • Introducing chlorine, • Hydrostatic testing, • Neutralizing flushed chlorinated water, • Sampling, • Delivery of samples for water quality analysis in accordance with the Contract Documents, AWWA standards, and Westchester County Department of Health requirements, • Analysis by qualified laboratory, • Providing results to Engineer and Owner and removing blow off/sample line to corporation. • Pressure testing of new hydrants shall be considered incidental to pressure testing of water mains and shall not warrant additional payment. <p>Also includes</p> <ul style="list-style-type: none"> • Pumps, • Injectors, • Gauges, • Neutralizing chlorine residual, • All other incidentals necessary to flush, chlorinate, perform hydrostatic testing, neutralize chlorine residual, sample and obtain satisfactory water quality test results. Chlorinating, sampling and water quality testing shall be performed in accordance with the latest revision of AWWA C651- Disinfecting Water Mains. <p>Excludes work associated with</p> <ul style="list-style-type: none"> • Disinfection, hydrostatic tests and water quality tests that fail to produce satisfactory results and hydrostatic tests performed by Contractor for his/her convenience. • Contractor shall be responsible for costs associated with flushing, chlorinating, hydrostatic testing, neutralizing chlorine, sampling and water quality testing that produce unsatisfactory results. 	

ITEM 6. Maintenance and Protection of Traffic on Martling Avenue	
Measurement	Percent of Work completed and accepted
Payment	Percent of lump sum price based on Schedule of Values
Schedule of Payment	Monthly based on progress
All labor, tools, equipment and materials required to provide maintenance and protection of traffic on throughout the duration of work. Includes only maintenance and protection of traffic on Village of Tarrytown-owned roadways.	

ITEM 7: Test Pits	
Measurement	Number of Test Pits Completed
Payment	Unit price per each
Schedule of Payment	Monthly based on quantity completed
All labor, equipment, tools and materials to determine location, depth, diameter and material type for uncharted utilities or to shut off existing utilities in locations shown on Contract Drawings including, <ul style="list-style-type: none"> • Excavation, • Backfilling and compacting in accordance with the Contract Documents, • Loam and seed, • Removing and resetting granite and bituminous curb, • All other incidentals necessary to excavate uncharted utilities or locations noted in Contract Drawings to determine information required. • Includes test pits as identified on the Drawings and any additional test pits deemed necessary by the Engineer. 	

Item 8: Owner's Contingency Allowance for Miscellaneous Additional Work	
Measurement	Portion of Owner's contingency allowance amount authorized
Payment	Percent of not to exceed contingency amount authorized by Change Order
Schedule of Payment	Monthly based on progress
Owner's allowance for Miscellaneous Work as requested by Owner. Contractor shall not receive payment for any unused portion of the contingency allowance.	

1.03 MEASUREMENT AND PAYMENT BASIS – ADD ALTERNATE (WHITE PLAINS ROAD)

ITEM A1: Mobilization/Demobilization	
Measurement	Portion of Work completed and accepted
Payment	Percent of lump sum price based on Schedule of Values
Schedule of Payment	50% at Project commencement - 25% at Substantial Completion; 25% at Final Completion
Includes; <ul style="list-style-type: none"> • Delivery to and removal of equipment from the Project Site, • Temporary utilities, • Facilities and controls, • Obtaining necessary permits including associated fees, • Insurance and bond costs, • Signage, • Development of pre-construction schedules and plans required by the General Conditions, Supplementary Conditions and General Requirements; <ul style="list-style-type: none"> • Necessary pre-construction investigations, • Verifying existing field conditions, • Coordination, • Site clean-up, restoration and closeout. 	

ITEM A2: Furnish and Install All Water Main, Fittings, Services, Earthwork, Pavement, and Associated Labor on White Plains Road	
Measurement	Portion of Work completed and accepted
Payment	Percent of lump sum price based on Schedule of Values
Schedule of Payment	50% at Project commencement - 25% at Substantial Completion; 25% at Final Completion
<p>All labor, equipment, tools, and materials to furnish and install all water main, fittings, services, earthwork, pavement, and associated labor, including</p> <ul style="list-style-type: none"> • Water Main <ul style="list-style-type: none"> ○ Removing and disposing of existing pipe where required ○ Capping and abandoning existing water mains where required ○ Installing restraining thrust rods ○ Pipe insulation where required ○ Connecting to existing water mains • Fittings <ul style="list-style-type: none"> ○ Mega-lug fittings ○ All fittings (tees, bends, crosses, couplings, reducers, offsets, and solid sleeves) as specified herein or on the drawings or as needed in response to unanticipated field conditions, complete in place. All fittings shall be considered incidental to water main installation and no separate payment shall be made for water main fittings. ○ Provision of valve and valve box materials ○ Cutting valves into existing mains where required ○ Provision of fittings, pipe, valves and hydrants needed for hydrant assemblies, including the new tee on the water main, pipe to connect the water main to the hydrant assembly, hydrant valves as specified on the drawings, the hydrant body, and bends as part of the hydrant assembly. • Services <ul style="list-style-type: none"> ○ Service piping ○ Curb stops and boxes ○ Tapping pipe ○ Coordination with property owners • Earthwork <ul style="list-style-type: none"> ○ Excavation ○ Removing and disposing of excess earthwork material ○ Excavation and replacement of materials unsuitable for pipe or structure subgrade or trench backfill and compaction. Unsuitable material shall be as defined in Section 31 00 00. Unsuitable materials shall be removed and replaced with suitable materials as defined in Section 31 00 00. ○ Contractor shall be responsible for measurement of unsuitable material quantities removed, subject to review and approval by the engineer. ○ Shoring and bracing ○ Dewatering 	

- Pipe bedding
- Blanket, backfill, and compaction
- Excavating around existing utilities
- Support of existing utilities during excavation
- Pavement
 - Saw cutting
 - Disposal of removed pavement
 - Grading, fine grading, and compacting gravel sub-base
 - Emulsion,
 - Bituminous tack coat
 - Adjusting of roadway castings,
 - Placement and compaction of 4-inches of pavement courses in required lift depths,
 - Restoring pavement markings
 - Temporary trench pavement
 - Excludes any roadway restoration required in response to incidental damage to roadways during construction that are unrelated to anticipated excavations within the sawcut limits specified on the drawings. Includes only roadway restoration as required in accordance with the contract drawings in areas where excavation for new utilities is required. In the event that NYSDOT requests changes to the NYSDOT-approved roadway restoration methods specified herein and on the contract drawings, the contractor shall be required to adjust their pavement methods to match NYSDOT requests at no additional cost to the Village.
- Associated Labor
 - Loam and seed for restoration of trenches in grass areas
 - Tree trimming or other clearing, grubbing, or landscaping work done as part of construction
 - Removing and replacing signs, fences, and mailboxes
 - Removing and resetting granite curbs
 - Replacement of bituminous and concrete curbing
 - Removing and resetting guard rails
 - Painting hydrant in accordance with local requirements,
 - Provision of temporary inlet protection
 - Routine maintenance and removal of sediment accumulation in inlet protection
 - Regular replacement of sedimentation sacks as required or directed for inlet protection
 - Cleaning catch basin sumps of any sediment allowed to enter the drainage system due to negligence of maintenance
 - All other incidentals necessary to furnish and install hydrant assemblies, complete in place, as specified, shown on the Drawings or required by field conditions.

ITEM A3: Rock Excavation	
Measurement	Per cubic yard
Payment	Unit price per cubic yard
Schedule of Payment	Monthly based on progress
<p>Includes all labor, services, tools, equipment, and materials for removing, legally disposing, and replacing with suitable backfill ledge rock and boulder greater than 1 cubic yard. Excludes rock removed outside of pay limits. Excludes gravel and rocks/boulders less than 1 cubic yard in size. This includes but is not limited to drilling, blasting, hydraulic hammer, barring or wedging, removal, and disposal of the rock and replacement as necessary with gravel backfill material as described in the Specifications or directed by the Owner. If blasting is used, all blasting activities including but not limited to pre-blast survey, notifications, monitoring during blasting, fire department details, post-blast survey, and insurance are considered incidental to this item. Excludes pavements and pavement foundations.</p>	

ITEM A4: Furnish and Install Additional Cement Lined Ductile Iron Fittings	
Measurement	Ductile iron fittings (tees, bends, crosses, couplings, reducers, off-sets and solid sleeves) complete in place shall be measured by the pound based on tabular weights obtained from current ANSI Specifications. The weight of the fittings shall not include the weight of any glands, megalugs, bolts, nuts, gaskets and/or accessories. Glands, megalugs, bolts, nuts, gaskets, and/or accessories shall be considered incidental to the fitting.
Payment	Unit price per pound
Schedule of Payment	Monthly based on quantity installed, tested, and accepted.
<p>All labor, equipment, tools and materials to furnish and install fittings on new and existing water mains, clearing and grubbing, saw cutting, excavation, removing and disposing of excess materials, shoring/bracing, dewatering, removing and disposing existing pipe, valves and appurtenances, plugging and capping existing water mains abandoned in place, restraining thrust with rods, mega-lug fittings, bedding and backfill, connecting existing water mains (as applicable), compaction, crossing of underground utilities, and all other incidentals necessary to furnish and install the fittings, complete in place, as specified, shown on the Drawings or required by field conditions. Excludes all fittings included in ITEM A2: Furnish and Install All Water Main, Fittings, Services, Earthwork, Pavement, and Associated Labor on White Plains Road and excludes all fittings shown in the drawings. Includes only fittings required for changes in the alignment approved by the Engineer or Owner.</p>	

ITEM A5: Disinfection, Pressure and Bacteria Testing of Water Mains	
Measurement	Percent of total installed water main length tested and passed
Payment	Lump Sum
Schedule of Payment	Monthly based on progress
<p>All labor, equipment, tools and materials necessary to satisfactorily disinfect, pressure test and bacteria test water mains, including</p> <ul style="list-style-type: none"> • Furnishing and installing temporary blow-off/sample lines, • Flushing, • Introducing chlorine, • Hydrostatic testing, • Neutralizing flushed chlorinated water, • Sampling, • Delivery of samples for water quality analysis in accordance with the Contract Documents, AWWA standards, and Westchester County Department of Health requirements, • Analysis by qualified laboratory, • Providing results to Engineer and Owner and removing blow off/sample line to corporation. • Pressure testing of new hydrants shall be considered incidental to pressure testing of water mains and shall not warrant additional payment. <p>Also includes</p> <ul style="list-style-type: none"> • Pumps, • Injectors, • Gauges, • Neutralizing chlorine residual, • All other incidentals necessary to flush, chlorinate, perform hydrostatic testing, neutralize chlorine residual, sample and obtain satisfactory water quality test results. Chlorinating, sampling and water quality testing shall be performed in accordance with the latest revision of AWWA C651- Disinfecting Water Mains. <p>Excludes work associated with</p> <ul style="list-style-type: none"> • Disinfection, hydrostatic tests and water quality tests that fail to produce satisfactory results and hydrostatic tests performed by Contractor for his/her convenience. • Contractor shall be responsible for costs associated with flushing, chlorinating, hydrostatic testing, neutralizing chlorine, sampling and water quality testing that produce unsatisfactory results. 	

ITEM A6: Maintenance and Protection of Traffic on White Plains Road	
Measurement	Percent of Work completed and accepted
Payment	Percent of lump sum price based on Schedule of Values
Schedule of Payment	Monthly based on progress
Includes only maintenance and protection of traffic in accordance with NYSDOT standards on NYSDOT-listed routes, including Route 119. In the event that NYSDOT requests changes to the NYSDOT-approved maintenance and protection of traffic methods specified herein and on the contract drawings, the contractor shall be required to adjust their maintenance and protection of traffic methods to match NYSDOT requests at no additional cost to the Village.	

ITEM A7: Test Pits	
Measurement	Number of Test Pits Completed
Payment	Unit price per each
Schedule of Payment	Monthly based on quantity completed
All labor, equipment, tools and materials to determine location, depth, diameter and material type for uncharted utilities or to shut off existing utilities in locations shown on Contract Drawings including, <ul style="list-style-type: none"> • Excavation, • Backfilling and compacting in accordance with the Contract Documents, • Loam and seed, • Removing and resetting granite and bituminous curb, • All other incidentals necessary to excavate uncharted utilities or locations noted in Contract Drawings to determine information required. • Includes test pits as identified on the Drawings and any additional test pits deemed necessary by the Engineer. 	

Item A8: Owner's Contingency Allowance for Miscellaneous Additional Work	
Measurement	Portion of Owner's contingency allowance amount authorized
Payment	Percent of not to exceed contingency amount authorized by Change Order
Schedule of Payment	Monthly based on progress
Owner's allowance for Miscellaneous Work as requested by Owner. Contractor shall not receive payment for any unused portion of the contingency allowance.	

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Phase VII-B Water Main Replacements
Tarrytown, NY 10591

PART 2 - PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 33 12 16

WATER VALVES AND FITTINGS

PART 1 - GENERAL

1.1 SUBMITTALS

- A. Valve Schedule: Submit the valve schedule listing type of valve, manufacturer's model number and size, for each valve type required.
- B. Product Data: Catalog sheets and specifications for each valve type and size and all other items required by this Section.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Valve/Valve Box Manufacturers
 - 1. Mueller Co., 1-800-423-1323.
- B. Coupling Manufacturers
 - 1. Dresser Inc., 41 Fisher Avenue, Bradford, PA 16701, (814) 362-9200.
 - 2. JCM Industries, P.O. Box 1220, Nash, TX, 75569, (903) 832-2581.
 - 3. Smith Blair, 30 Globe Avenue, Texarkana, AR 71854, (870) 773-5127.
 - 4. Total Piping Solutions, P.O. Box 525, Olean, NY 14760, (716) 372-0160.
 - 5. Or Approved Equal.

2.2 VALVES - BASIC CONSTRUCTION

- A. Provide valves of first quality, free from all imperfections and defects, with body markings indicating manufacturer and rating. Valve parts of the same manufacturer, size, and type shall be interchangeable. All valves that use packing (except butterfly, cone, and ball valves) shall be capable of being packed when wide open and under full working pressure.
- B. Provide Mueller A-2360 Series, or approved equal.
- C. Unless otherwise indicated, provide valves having a minimum operating pressure of 250 psig OWG, factory tested at double the working pressure.

- D. Valves 3 inches and larger in size shall have iron bodies and bronze trim unless otherwise indicated.
- E. Valve ends, unless otherwise indicated, shall be:
 - 1. Mechanical joint, rubber ring joint, or flanged joint in ductile iron piping to match joints of pipe furnished.
- F. Valve flanges shall be of a class to mate with pipe flanges.
- G. All bolts on all valves shall be made of stainless steel.

2.3 MATERIALS

- A. Body:
 - 1. Cast Iron: ASTM A-126 Class B, higher strength cast iron.
 - 2. Ductile Iron: ASTM A-536 Grade 65-45-12.
 - 3. Bronze: For use up to 150 WSP, ASTM B-62; over 150 to 300 psig WSP, ASTM B-61.
- B. Stem:
 - 1. Cast Manganese Bronze: ASTM B-584.
 - 2. Cast Silicon Brass: ASTM B-584.
 - 3. Rolled Silicon Brass: ASTM B-98 Alloy D.
 - 4. Rolled Aluminum Bronze: ASTM B-150 Alloy 1.
 - 5. Rolled Manganese Bronze: ASTM B-138 Alloy A (half hard).
 - 6. Naval Brass: ASTM B-21 Alloy A or Alloy C (hard).
 - 7. Silicon Bronze: ASTM B-371 Alloy C69400.
 - 8. Stainless steel, Type 304.

2.4 GATE VALVES

- A. Gate Valves 3 Inches and Larger in Size:
 - 1. Mueller A-2360 Series or approved equal.
 - 2. Design Standard: ANSI/AWWA C509 or ANSI/AWWA C515.
 - a. Comply fully with either Standard and the following additional requirements.
 - b. Resilient wedge type with ductile iron body, epoxy coated in conformance with ANSI/AWWA C550, bronze spindle and nut in which the screw operates.
 - c. Handwheel operators or 2-inch square operating nuts as required.
 - d. Valves installed inside buildings and pits shall be outside screw and yoke type, unless otherwise noted.
 - e. Valves buried in the ground shall be non-rising stem.
 - f. Provide extension stems and guides as required by the location.
 - g. Valves shall be OPEN-LEFT (counter clockwise)

2.5 VALVE BOXES

- A. Cast iron adjustable type box and cover extending from the valve to final grade. Cover of box shall be complete with an indicating arrow cast on it denoting direction of valve opening.
- B. All gate boxes shall be a minimum five feet; two piece slide top-flanged top complete, 6-inch shaft diameter, bell bottom only. The valve box shall have a smooth cast seat to accept the valve box cover and insure a non-rocking installation.
- C. Covers shall be close fitting and substantially dirt-tight. The cover shall be heavy, non-tilting 2-inch drop style recessed in the box top with pick holes for easy removal. The word "WATER" shall be cast into the box cover.

2.6 COUPLINGS

- A. Pipe couplings shall be Dresser, Style 38 or approved equal.
- B. The coupling bolts shall be of the elliptic-nick, track-head design with rolled threads. The manufacturer shall supply information as to the recommended torque to which the bolts shall be tightened. All bolt holes in the followers shall be oval for greater strength.
- C. The gaskets of the coupling shall be composed of a crude synthetic rubber base compounded with other products to produce a material which will not deteriorate from age, from heat, or exposure to air under normal storage conditions. It shall also possess the quality of resilience and ability to resist cold flow for the material so that the join will be sealed and tight indefinitely when subjected to shock, vibration, pulsation and temperature or other adjustments of the pipe line.
- D. The couplings shall be assembled on the job in a manner to insure permanently tight joints under all reasonable conditions of expansion, contraction, shifting and settlement, unavoidable variations in trench gradient, etc. The coupling shall be Dresser Style 38

2.7 CORPORATION STOPS

- A. Corporation shall conform to the latest revision of AWWA Standard C800 and shall be individually inspected and tested for leaks by air pressure under water. Corporation stops shall be H-15000N, AWWA taper thread one (1") female inlet and one (1") flared connection outlet, designed to prevent blow-out and shall be bubble-tight at 300 psig working pressure. Corporation stops shall be capable of being installed using a standard tapping machine. The corporation stops shall be manufactured by Mueller Co., or approved equal.

2.8 CURB STOPS

- A. All curb stops shall conform to the latest revision of AWWA Standard C-800, and shall be individually inspected and tested for leaks by air pressures under water. All curb stops shall be lead free.

- a. 1" and 3/4" inlet copper service shall be Mueller Mark II Oriseal Curb Valve, Mueller 110 H-15204N, or approved equal, and shall include copper conductive flared fittings for 1" inlet and copper compression fitting 1" outlet.
- b. 1" and 3/4" existing galvanized steel service shall be Mueller Mark II Oriseal H-15174N for flared connection, or approved equal.
- c. 1" and 3/4" existing lead service shall be Mueller Mark II Oriseal H-15174N for flared connection, or approved equal with 1" flare nut outlet F.I.P. thread.

B. Curb Stop keys shall be Pollard Heavy Duty, Model No. P537.

2.9 SERVICE SADDLES

- A. Conform to requirements of AWWA C800, NSF/ANSI 61, and NSF/ANSI 372.
- B. Materials: ductile iron body conforming to ASTM A536 with Type 304 stainless steel per ASTM A240, double straps wrap around design with heaving tapping boss, standard AWWA thread per AWWA C800 (CC thread) and fusion bonded epoxy coated in accordance with AWWA C213 or nylon coated per AWWA C224.
- C. Studs, nuts and washers: Type 304 stainless steel. Nuts: coated to prevent galling.
- D. Gaskets: Buna-N (Nitrile) or EPDM rubber gaskets per ASTM D2000.
- E. Manufacturers
 1. Smith Blair
 2. Mueller Corporation

2.10 SERVICE BOXES

- A. Materials: heavy duty cast iron conforming to ASTM A48.
- B. Cover: heavy duty, flush fit, locking type with a brass pentagon head bolt and the word "WATER" cast in the cover.
- C. Base: arch style. Provide enlarged base for 1-1/2 inch and 2-inch diameter water services.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install valves of type and kind as indicated on the drawings, each complete with operator and accessory items as required by the actual location. Size valves the same size as the piping in which they are installed, unless otherwise indicated.

3.2 VALVE BOXES

- A. Install a valve box and cover, extending from the valve to final grade, for each gate valve buried in the ground.

END OF SECTION