



STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**  
800 BAY ROAD  
P.O. BOX 778  
DOVER, DELAWARE 19903

JENNIFER COHAN  
SECRETARY

**VIA WEBSITE POSTING**

February 7, 2020

Contract No. T201880102.01  
Bear Administration Building - Demolition and Reconstruction  
New Castle County

Ladies and Gentlemen:

Enclosed is Addendum No. 4 for the referenced contract consisting of the following:

1. The Bid Proposal Cover, revised, to be substituted for the same page in the Proposal.
2. Two (2) pages, Prospective Bidders Note, page ii, revised and page iiA, new. Note 13. Breakout Sheets has been revised and Note 18. Allowance has been added.
3. Two (2) pages, Special Provision, 710500 - Water Main and Accessories, pages 32 and 40A, revised to be substituted for the same pages in the Proposal.
4. One (1) page, Special Provision, 763504 - Site Work, page 50, revised to be substituted for the same page in the Proposal.
5. One (1) page, Breakout Sheet Instructions, revised, to be substituted for the same page in the Proposal.
6. Two (2) pages, Breakout Sheets for 710500, revised, to be substituted for the same pages in the Proposal.
7. One (1) page, Appendix A, Table of Contents, pages TOC-1, revised, to be substituted for the same page in the Appendix.
8. Three (3) pages, Appendix A, Technical Specifications, Section 066500 - Exterior Plastic Trim, new, to be added to the Appendix.
9. One (1) sheet, Construction Plans, sheet 22, revised, to be substituted for the sheet in the Plans.

Please note the revisions listed above and submit your bid based upon this information.

Sincerely,

*~signature on file~*

Connie Ivins  
Competitively Bid Contracts Coordinator  
Delaware Department of Transportation

STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION

BID PROPOSAL

for

CONTRACT T201880102.01

**BEAR ADMINISTRATION BUILDING  
DEMOLITION AND RECONSTRUCTION**

NEW CASTLE COUNTY

ADVERTISEMENT DATE: December 9, 2019

COMPLETION TIME: 677 Calendar Days

**PROSPECTIVE BIDDERS ARE ADVISED THERE WILL BE A MANDATORY PRE-BID MEETING:  
MONDAY JANUARY 6, 2020 AT 11:00 A.M. IN THE BEAR ADMINISTRATION BUILDING,  
250 Bear-Christiana Road, Bear, DE 19701**

SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION  
DELAWARE DEPARTMENT OF TRANSPORTATION  
AUGUST 2016

Bids will be received in the Bidder's Room at the Delaware Department of Transportation's Administration Building, 800 Bay Road, Dover, Delaware prior to 2:00 P.M. local time THURSDAY JANUARY 23  
TUESDAY, FEBRUARY 11, 2020

Contract No. T201880102.01

- \* At least two business days prior to contract execution - The awarded Contractor shall provide to DeIDOT copies of the Employee Drug Testing Program for the Contractor, and any other listed Subcontractors;
  - \* Subcontractors - Contractors that employ Subcontractors on the job site may do so only after submitting a copy of the Subcontractor's Employee Drug Testing Program along with the standard required subcontractor information. A Subcontractor shall not commence work until DeIDOT has approved the subcontractor in writing;
  - \* Penalties for non-compliance are specified in the regulation.
7. No RETAINAGE will be withheld on this contract unless through the Prequalification Requirements.
  8. EXTERNAL COMPLAINT PROCEDURE can be viewed on DeIDOT's Website [here](#), or you may request a copy by calling (302) 760-2555.
  9. REMINDER; A copy of your firm's Delaware Business License must be submitted with your bid.
  10. SECTION 106.06 BUY AMERICA Contract Requirement in the Delaware Standard Specifications for Road and Bridge Construction, August, 2016 does not apply to this contract.
  11. AUGUST 2016 STANDARD SPECIFICATIONS apply to this contract. The Contractor shall make himself aware of any revisions and corrections (Supplemental Specifications, if any) and apply them to the applicable item(s) of this contract. The 2016 Standard Specifications can be [viewed here](#).
  12. FLATWORK CONCRETE TECHNICIAN CERTIFICATION TRAINING:  
Section 501.03, 503.03, 505.03, 610.03, 701.03 and 702.03 of the 2016 Standard Specifications require contractor's to provide an American Concrete Institute (ACI) or National Ready Mix Concrete Association (NRMCA) certified concrete flatwork technician to supervise all finishing of flatwork concrete. Concrete flatwork certification will be effective starting on June 1, 2018.
  13. FIVE (5) BREAKOUT SHEETS MUST BE SUBMITTED EITHER WITH YOUR BID DOCUMENTS; or within seven (7) calendar days following the bid due date by the lowest apparent bidder. Refer to instructions adjacent to the Breakout Sheets in this document.
  14. A MANDATORY Pre-Bid Meeting will be held on MONDAY JANUARY 6, 2020 AT 11:00 A.M. IN THE BEAR ADMINISTRATION BUILDING, 250 Bear-Christiana Road, Bear, DE 19701, for the purpose of establishing the list of subcontractors and to answer questions. Representatives of each party to any Joint Venture must attend this meeting. ATTENDANCE OF THIS MEETING IS A PREREQUISITE FOR BIDDING ON THIS CONTRACT.
  15. APPENDIX-A, TECHNICAL SPECIFICATIONS are included as part of the contract documents.
  16. An Asbestos Abatement Report is included for this project.
  17. A BIDDER CRITERIA AND REFERENCE SHEET is included in the Bid Documents. Bidders must meet the criteria listed; submit the fully completed Reference Sheet; and the supplied information determined to be valid by DeIDOT in its sole discretion, or their bid will be deemed non-responsive.

18. ALLOWANCE:

This Section includes administrative and procedural requirements governing an allowance. One item is specified in Breakout Sheet -1 of the Contract Documents by allowance. Allowance has been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

SELECTION AND PURCHASE

At Architect's request, obtain proposals for the allowance for use in making final selection. Submit proposals for purchase of product included in allowance, in the form specified for Change Orders.

Contract No. T201880102.01

Allowance Adjustment: To adjust allowance amounts, prepare an allowance authorization form for review and approval by the owner, based on the difference between the purchase amount and the allowance.

Coordinate materials and their installation for the allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

A Twenty Thousand Dollar (\$20,000) allowance shall be provided as part of the bid for this project to cover Bid Item Number 710500 - Water Services, specifically ITEM NO. 8 on BREAKOUT SHEET - I. Contractor shall use the Allowance Authorization Form to document any allowance change orders. At closeout of the Contract, funds remaining in the Contingency allowance will be credited to Owner by Change Order.

The Contractor shall include in the Contract Sum the allowance stated in the Contract Documents. The Item covered by allowance shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

For costs to be covered under a project allowance, the Contractor shall submit a summary of those costs anticipated and an Allowance Access Authorization Form to the Architect and Owner, reflecting the projected costs. The Allowance Access Authorization Form must be signed by the Owner prior to initiating any work associated with the allowance."

The allowance shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Bid Item Number 710500 - Water Services Contract Sum but not in the allowance. Whenever costs are more than or less than the allowance, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect the difference between actual costs and the allowance. Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

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Before any shutdown, as specified above, the Contractor must give the utility owner and local 911 Center and Fire Department forty-eight (48) hours' notice; and the Contractor must also furnish written notice to all water users in the area, a minimum of forty-eight (48) hours in advance of the closing of any water valves which may interrupt customer water service.

Shutdowns are not permitted if tapping sleeves and valves are specified for making the connections.

Any and all emergency repairs required are the responsibility of the Contractor. Upon notification via telecommunication from the Owner, attend to any repairs immediately. In the event the Owner is unable to contact the Contractor or the Contractor fails to make the emergency repairs in a length of time determined by the Owner, the Owner reserves the right to attend to any or all emergency repair work. In such a case, the Contractor is responsible for reimbursements due to the Owner for the costs of the repairs.

Remove and replace or repair all Materials and Work, or parts thereof, which are deemed unsatisfactory as to any or all requirements of the Owner or the Engineer or as specified herein, at no expense to the State or the Owner.

Guarantee all workmanship, Materials and Work performed is in strict accordance with the Contract Documents, for a period of two years from and after the date of Completion and Acceptance of the Work. Repair, correct or replace as required, promptly and without charge, all Work, Equipment and Material, or parts thereof, which fail to meet the above guarantee, or which in any way fail to comply with or fail to be in strict accordance with the terms, provisions and requirements of the Contract during such two-year period.

Only designated Utility Owner personnel shall have the authority to operate any hydrants or valves that make up the Owner's water distribution system. Contractors shall not operate existing gate valves or hydrants. It is the Contractors responsibility to make arrangements for receiving water from public or private sources, secure necessary permits and pay regular charges. Under no circumstances shall existing hydrants be used to supply water other than to Utility Customers. The Contractor under the direction of the Utility Owner personnel shall do the initial filling of new water mains for service installations and testing. Disposal of any wastewater or any test water into New Castle County's sanitary sewer system is subject to New Castle County's charge. Prior written approval must be obtained from New Castle County.

**Materials:**

Provide Materials as specified in the following DelDOT Specifications:

Portland Cement Concrete, Class B	Section 1022
Backfill, Borrow Type C	Section 1001
Stone, Delaware No. 8	Section 1004

All the materials including pipe, fittings, and all other accessories as listed under this Special Provisions, shall conform to the material and quality requirements of the Standards and Specifications of the Utility Owner. The Utility Owner shall have right to inspect and reject the materials, if his/her specifications requirements are not met. It is recommended that the Contractor should contact the Utility Owner and get himself/herself familiarized with the applicable requirements of the materials required under this Contract before submitting his/her bid.

The Contractor shall be responsible for providing materials including pipe, fittings, and all other appurtenances necessary to make permanent connections to existing utility facilities of whatever material type encountered. ~~Connections to the Artesian Water 12" main via a 12"x4" tee and 4" ductile iron pipe to new meter chamber, 4" Meter Vault, Including Internal Piping, Meter, Valves, Assemblies, etc within the meter chamber shall be purchased from Artesian Water unless otherwise directed by the Engineer.~~

**Meter to be provided by Artesian Water Company.**

Contract No. T201880102.01

- d. BACTERIA TESTING OF WATERMAIN - Provide an adequate blowoff for use in flushing of the main. Before the water is turned on for use by the consumer from the relocated mains, the Owner will conduct bacteriological tests on water samples taken from the blowoff. All expenses incurred in the performance of these tests by the Owner are borne by the Contractor. Upon final sanitary approval by the Owner, return water service for use by the consumer. Before the final connection is made, thoroughly clean all surfaces of the relocated line, including all gaskets and glands, and the existing water main that are to become part of the closing joint with a 5 percent solution of Sodium Hypochlorite. Exercise extreme care in order to prevent the entrance of any contaminants into the main. All expenses and cost incurred in carrying out the specified sterilization work is borne by the Contractor at no extra cost to the Owner or the State and is included in the Contract Unit Price per linear foot bid for the Item for the various sizes. Plug adjacent pipe openings as required in accordance with the Section 202.03.2.
12. AS-BUILT / FINAL LOCATION DRAWINGS Within thirty (30) days after completion of required work, the Contractor shall submit an accurate print or prints showing the horizontal and vertical location of mains, bends and other appurtenances to the Engineer and the Utility Owner. Services, fittings, fire hydrants and all other reconnections to the replaced pipes shall be identified and marked in the construction drawings by the Contractor. The Contractor shall be responsible for marking the construction drawings in reference to at least two fixed and easily found points.

**Method of Measurement and Basis of Payment:**

Price and payment for water service Items includes furnishing, transporting and installing the Materials; adjusting, relocating or repairing the services, testing of the water main system; for repairing leaks and defects, including defects to settlement, connecting to existing water main systems and services; maintaining service as required; excavating; disposing of excess excavated Material; backfilling; furnishing Material for backfilling; furnishing and installing concrete thrust blocks, joint restraints, pipe bedding, sheeting and shoring, temporary support of existing Utilities, dewatering; abandoning existing pipes, cutting and capping new or existing lines and for all labor, Equipment, tools and necessary incidentals to achieve and accept an operational water main system.

No separate payment shall be made for salvaging or abandoning or removing and disposing of existing water mains and cost for such required work shall be incidental to the respective sizes for installing water main.

A breakout sheet attached to the Proposal lists the different elements of work or materials involved in completing this item. The Contractor shall fill in a unit price for each item and the cost (unit price times the proposed quantity). The Lump Sum cost for Item 710500, shall be derived from the total sum of the cost of all items listed. ~~The breakout sheet shall be attached to the Bid Proposal. Failure to submit the breakout sheet with the Bid Proposal will result in the bid being declared non-responsive and rejected.~~

The Department reserves the right to delete from the Contract one or more items listed and the right to add or subtract from the quantity of each item. The total price to be paid will be adjusted in accordance with the Contractor's unit prices as required above. There will be no extra compensation or increase in unit prices in the breakout sheet if such additions and/or deletions are made to the quantities.

1/29/2020

Contract No. T201880102.01

**763504 - SITE WORK**

**Description:**

This work consists of performing site work and furnishing the materials necessary to complete the Electrical Site Work as indicated in the Contract documents and further described in the technical specifications in Appendix A – Technical Specifications for Crew Operations Building and Site Work. All site work is to be performed in conformance with the Delaware Department of Transportation Specifications for Road and Bridge Construction dated August 2016 and Supplemental Specifications dated June 15, 2018 and December 28, 2018.

**Materials and Construction:**

All materials and construction shall conform to the requirements of the Contract drawings, the Delaware Department of Transportation Standard Specifications for Road and Bridge Construction dated August 2016 and Supplemental Specifications dated June 15, 2018 and December 28, 2018, and the technical specifications in Appendix A – Technical Specifications for Crew Operations Building, Maintenance Shop Building, and Site Work.

**Method of Measurement:**

Payment for this item will be made on a lump sum basis wherein no measurement will be made.

**Basis of Payment:**

A breakout sheet attached to the Proposal lists the different elements of work or materials involved in completing this item. The Contractor shall fill in a unit price for each item and the cost (unit price times the proposed quantity). The Lump Sum cost for Item 710500, shall be derived from the total sum of the cost of all items listed. ~~The breakout sheet shall be attached to the Bid Proposal. Failure to submit the breakout sheet with the Bid Proposal will result in the bid being declared non-responsive and rejected.~~

The payment for the work under this item shall be made at the contract unit price per Lump Sum bid, which price and payment shall constitute full compensation for performing the work specified and for furnishing all materials, labor, tools, equipment and incidentals necessary to complete the item.

11/20/2019

# BREAKOUT SHEET INSTRUCTIONS

**BREAKOUT SHEET(S) MUST BE SUBMITTED EITHER WITH YOUR BID DOCUMENTS; OR WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE BID DUE DATE BY THE LOWEST APPARENT BIDDER.**

BREAKOUT SHEETS ARE TO BE SUBMITTED EITHER WITH YOUR BID DOCUMENTS; OR WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE BID DUE DATE BY THE LOWEST APPARENT BIDDER TO DELDOT'S CONTRACT ADMINISTRATION AS SHOWN BELOW. BREAKOUT SHEETS CANNOT BE CHANGED AFTER AWARD. THE DEPARTMENT WILL REVIEW THE FIGURES SUBMITTED ON THE BREAKOUT SHEET(S) TO ENSURE THEY MATCH THE RESPECTIVE LUMP SUM BID AMOUNT(S). MATHEMATICALLY INCORRECT BREAKOUT SHEETS WILL BE RETURNED FOR IMMEDIATE CORRECTION.

BREAKOUT SHEETS MAY BE SUBMITTED:

VIA E-MAIL TO: DOT-ASK@STATE.DE.US  
SUBJECT: T201880102.01 Breakout Sheets

OR MAILED TO: DELDOT  
CONTRACT ADMINISTRATION  
PO BOX 778, DOVER, DE 19903

'BREAKOUT SHEET' AND THE PROJECT NUMBER  
MUST APPEAR ON THE ENVELOPE.

BREAKOUT SHEET - 1		CONTRACT NO. T201880102			
Item Number 710500 – Water Services					
ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
1	161	LF	Ductile Iron Pipe Class 52, Cement Lined, 12”	\$	\$
2	413	LF	Ductile Iron Pipe Class 52, Cement Lined, 6”	\$	\$
3	366	LF	HDPE IPS DR-11, 4”	\$	\$
4	1	EA	Relocate Fire Hydrant	\$	\$
5	1	EA	12”x6” Tee	\$	\$
6	1	EA	12” Gate Valve with C.I. Box and Cover	\$	\$
7	1	EA	6” Gate Valve with C.I. Box and Cover	\$	\$
8	1	EA	4” Meter Vault, Including Internal Piping, Meter, Valves, Assemblies, Etc. <del>to be purchased from Artesian Water</del> <b>PARTS ONLY – ALLOWANCE:</b>	\$20,000.00	\$20,000.00
			Contractor’s costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses (see <i>Prospective Bidders Notes number 18</i> )	\$	\$
9	1	EA	12” M.J. Sleeve	\$	\$
10	1	EA	6” M.J. Sleeve	\$	\$
11	9	EA	12” Bend, 45 Degrees	\$	\$
12	1	EA	12” Bend, 11.25 Degrees	\$	\$
13	4	EA	6” Bend, 90 Degrees	\$	\$
14	3	EA	6” Bend, 45 Degrees	\$	\$

BREAKOUT SHEET - 1		CONTRACT NO. T201880102			
Item Number 710500 – Water Services					
ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
15	2	EA	6” Bend, 11.25 Degrees	\$	\$
16	4	EA	4” Bend, 90 Degrees, HDPE IPS DR-11	\$	\$
17	2	EA	4” Bend, 11.25 Degrees, HDPE IPS DR-11	\$	\$
18	1	EA	4”x2.5” Reducer	\$	\$
19	2	EA	2” Cap	\$	\$
20	1	EA	12”x4” Tee	\$	\$
21	1	EA	4” DIP Bend, 90 Degrees	\$	\$
22	19	LF	Ductile Iron Pipe Class 52, Cement Lined, 6” <del>to be purchased from Artesian Water</del>	\$	\$
<b>TOTAL ITEM NUMBER 710500 – Water Services</b> \$ _____ (LUMP SUM BID PRICE FOR ITEM 710500– Water Services)					

## Bear Administration Building

This specification is for the work associated with the Canal District Administration Building.

<b><u>SECTION</u></b>	<b><u>SECTION TITLE</u></b>
<b><u>DIVISION 01</u></b>	<b><u>GENERAL REQUIREMENTS</u></b>
011000	Summary
012600	Contract Modification Procedures
012900	Payment Procedures
013100	Project Management and Coordination
013300	Submittal Procedures
014000	Quality Requirements
016000	Product Requirements
017300	Execution
017320	Cutting and Patching
017419	Construction Waste Management
017700	Closeout Procedures
017823	Operation and Maintenance Data
017839	Project Record Documents
018155	Air Barrier System Testing
018200	Demonstration and Training
019113	Commissioning General Requirements
<b><u>DIVISION 03</u></b>	<b><u>CONCRETE</u></b>
033000	Cast-In-Place Concrete
<b><u>DIVISION 04</u></b>	<b><u>MASONRY</u></b>
042200	Unit Masonry
<b><u>DIVISION 05</u></b>	<b><u>METALS</u></b>
051200	Structural Steel Framing
053100	Steel Decking
054000	Cold-Formed Metal Framing
055000	Metal Fabrications
055113	Metal Pan Stairs
<b><u>DIVISION 06</u></b>	<b><u>WOOD, PLASTICS, AND COMPOSITES</u></b>
061053	Miscellaneous Rough Carpentry
061600	Sheathing
064116	Plastic-Laminate-Clad Architectural Cabinets
066500	Exterior Plastic Trim

## SECTION 066500

### EXTERIOR PLASTIC TRIM

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

##### 1.2 SUMMARY

- A. Section Includes:
  - 1. Exterior cellular PVC trim boards.

##### 1.3 DEFINITIONS

- A. PVC: Polyvinyl chloride.

##### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product.
- B. Samples: For each exposed product and for each color and texture specified.

##### 1.5 WARRANTY

- A. Manufacturer's Warranty for plastic trim: Manufacturer agrees to repair or replace components that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period for Trim (Excluding Finish): 25 years from date of Substantial Completion.

#### PART 2 - PRODUCTS

##### 2.1 MATERIALS, GENERAL

- A. PVC: Free foam cellular OVC material with a small cell microstructure and density of 0.55 grams/cubic cm.

## 2.2 EXTERIOR PVC TRIM

### A. PVC Trim for Painted Finish:

1. Basis-of-Design Product: Subject to compliance with requirements, provide Azek Skirt Board; or comparable product by one of the following:
  - a. Fypon.
  - b. Boral Building Products.
  - c. Approved Equal.
2. Finish: Smooth, untextured.
3. Size: 1-inch by 10-inches, nominal.

## 2.3 MISCELLANEOUS MATERIALS

### A. Fasteners for Exterior Finish Carpentry: Provide nails or screws, in sufficient length to penetrate not less than 1-1/2 inches into wood or concrete substrate.

1. Provide stainless steel fasteners.

## **PART 3 - EXECUTION**

### 3.1 PREPARATION

#### A. Clean substrates of projections and substances detrimental to application.

### 3.2 INSTALLATION, GENERAL

#### A. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials.

1. Use concealed shims where necessary for alignment.
2. Scribe and cut trim to fit adjoining work.
3. Refinish and seal cuts as recommended by manufacturer.
4. Install to tolerance of 1/8 inch in 96 inches for level and plumb.
5. Coordinate trim with materials and systems in or adjacent to it.
6. Provide cutouts for mechanical and electrical items that penetrate trim.

### 3.3 INSTALLATION OF STANDING AND RUNNING TRIM

#### A. Install trim with minimum number of joints as is practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long, except where necessary.

1. Use scarf joints for end-to-end joints.
2. Provide 1/8-inch per 18 feet of trim for expansion and contraction.

#### B. Fit exterior joints to exclude water.

1. Cope at returns and miter at corners to produce tight-fitting joints, with full-surface contact throughout length of joint.
  2. Plane backs of casings to provide uniform thickness across joints, where necessary for alignment.
- C. Where face fastening is unavoidable, countersink fasteners, fill surface flush, and sand unless otherwise indicated.
- D. Paint trim and touch-up after installation.

END OF SECTION

PLOTTED BY: BOGHERTY DATE: 2/7/2020  
 FILE LOCATION: Q:\INDE\151152\_016-BEAR\_YARD\_ADMINISTRV\CADD\UT.DGN [ SHEET: CP01 ]

WATER MAIN SCHEDULE		
NO.	SIZE/TYPE	LENGTH
WM-1	12" CLASS 52 DIP	161'
WM-2	6" CLASS 52 DIP	378'
WM-3	4" HDPE IPS DR-11	366'
WM-4	6" CLASS 52 DIP	35'
WM-5	6" CLASS 52 DIP	19'

\*CONTRACTOR SHALL PURCHASE WM 5 (4" CLASS 52 DIP) DIRECTLY FROM ARTESIAN WATER.

WATER ACCESSORIES SCHEDULE		
NO.	DESCRIPTION	QUANTITY
1	CONNECT TO EX. 12" MAIN WITH 12"x6" TEE	1
2	12" GATE VALVE W/C. I. BOX AND COVER	1
3	12" BEND, 45 DEGREES	9
4	CONNECT TO EX. 12" MAIN W/M.J. SLEEVE	1
5	CONNECT TO EX. 4"x4" TEE INSTALL 12"x4" TEE ON EXISTING 12" MAIN	1
6	4" GATE VALVE W/C. I. BOX AND COVER 4" METER VAULT, INCLUDING VALVING AND ASSEMBLIES, SEE NOTE 8.	1
7	6" GATE VALVE W/C. I. BOX AND COVER	1
8	6" BEND, 90 DEGREES	4
9	6" BEND, 45 DEGREES	3
10	4" BEND, 11.25 DEGREES, HDPE IPS, DR-11	2
11	6" BEND, 11.25 DEGREES	2
12	4" BEND, 90 DEGREES, HDPE IPS, DR-11	4
13	CONNECT TO PROP BUILDING WITH 4"x2.5" REDUCER	1
14	CAP EX. 2" MAIN	2
15	12" BEND, 11.25 DEGREES	1
16	CONNECT TO EX. 6" MAIN W/M.J. SLEEVE	1
17	4" DIP BEND, 90 DEGREES	1

SANITARY ACCESSORIES SCHEDULE		
NO.	DESCRIPTION	QUANTITY
SA-1	6" PLUG	1
SA-2	6" DROP CONNECTION 2.8'	1
SA-3	6" CAP	2

SANITARY PIPE SCHEDULE						
NO.	SIZE/TYPE	LENGTH	SLOPE (FT/FT)	INV. EL.	DIS. EL.	
SP-1	6" SDR-26 PVC	22'	0.0200	62.59	62.15	
SP-2	6" SDR-26 PVC	83'	0.0200	62.13	60.47	
SP-3	6" SDR-26 PVC	89'	0.0200	60.45	58.67	
SP-4	6" SDR-26 PVC	76'	0.0200	58.65	57.13	

SANITARY MANHOLE SCHEDULE							
NO.	TYPE/SIZE	RIM EL.	T. G. EL.	INV. IN. EL.	INV. OUT. EL.	NORTHING	EASTING
SM-1	6" CLEANOUT	65.96	65.96	62.15	62.13	602951.55	588888.09
SM-2	6" CLEANOUT	66.18	66.18	60.47	60.45	603030.79	588859.74
SM-3	6" CLEANOUT	64.22	64.22	58.67	58.65	603082.57	588785.58

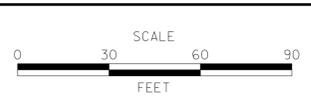
\*ALL CLEANOUTS SHALL BE RATED FOR H2O LOADING



- NOTE:
- WATER MAIN TRACER TAPE TO BE INSTALLED BY THE CONTRACTOR. THE TRACER TAPE SHALL BE A MINIMUM OF 3" WIDE AND BLUE IN COLOR. THE TRACER TAPE WILL BE MADE FROM BONDED LAYER PLASTIC WITH A METALLIC FOIL CORE AND BE IMPRINTED TO IDENTIFY THE WATER LINE.
  - WATER MAINS SHALL BE INSTALLED A MINIMUM OF 48" INCHES BELOW GRADE.
  - BEAR YARD ADMINISTRATION BUILDING DOMESTIC 4" MAIN AND FIRE 6" MAIN TO BE INSTALLED 12" OFFSET OF THE PIPE WALL IN SAME TRENCH. SEE COMMON PIPE TRENCH DETAIL.
  - CONTRACTOR SHALL INSTALL SEWER WITH MINIMUM 36" OF COVER.
  - CONTRACTOR SHALL CORE EXISTING MANHOLE AND MODIFY EXISTING FLOW CHANNEL TO ALLOW FOR PROPOSED 6" SANITARY SEWER LATERAL. NEW CASTLE COUNTY WILL NEED TO INSPECT THE LATERAL TO MANHOLE CONNECTION.
  - CONTRACTOR SHALL INSTALL DROP CONNECTION PER DETAIL.
  - PROPOSED SANITARY SEWER LATERAL SHALL BE OWNED AND OPERATED BY THE STATE OF DELAWARE.
  - METER VAULT SHALL BE BADGER FSAA-01 OR APPROVED EQUAL, SEE DETAIL. CONTRACTOR SHALL FURNISH AND INSTALL VAULT, INTERNAL PIPING, VALVES, ASSEMBLIES, ETC. METER WILL BE PROVIDED BY ARTESIAN WATER COMPANY, TO BE INSTALLED BY THE CONTRACTOR. PROPOSED VAULT SHALL BE INSTALLED A MINIMUM OF 3 FEET FROM THE EXISTING VAULT.
  - METER VAULT SHALL BE BADGER FSAA-01 OR APPROVED EQUAL, SEE DETAIL. CONTRACTOR SHALL PURCHASE INTERNAL PIPING, METER, VALVES, ASSEMBLIES, ETC. FROM ARTESIAN WATER. PROPOSED VAULT SHALL BE INSTALLED A MINIMUM OF 3 FEET FROM THE EXISTING VAULT.
  - CONTRACTOR SHALL VERIFY SIZE OF EXISTING FIRE MAIN PRIOR TO ORDERING 12" DIP. IN EVENT THAT THE EXISTING FIRE MAIN IS A DIFFERENT SIZE CONTRACTOR SHALL INFORM THE ENGINEER.

ADDENDA / REVISIONS

1	REVISED WATER MAIN DESIGN, ADDED WATER METER PIT, EDITED LOC, UPDATED SCHEDULES, ADDED NOTES- WJD - 01/24/2020
2	REVISED NOTE 8, DELETED NOTE "8" FROM WATER MAIN SCHEDULE-WJD-02/06/2020



**BEAR ADMINISTRATION BUILDING DEMOLITION AND RECONSTRUCTION**

CONTRACT	T201880102	BRIDGE NO.	N/A
COUNTY	NEW CASTLE	DESIGNED BY:	WJD
		CHECKED BY:	BPH

UTILITY RELOCATION PLAN		SECTION	JMT
		SHEET NO.	