Technical Specifications

<u>1.01</u> TECHNICAL SPECIFICATIONS:

The Technical Specifications and Drawings are provided under separate cover at the Purchasing Department website at (<u>https://cantonohio.gov/purchasing/?pg=showbids</u>).

All item numbers referenced to in the drawings refer to the State of Ohio Department of Transportation Construction and Material Specifications, 2019 Edition. All equipment, material and workmanship shall be performed according to these specifications and any Ohio Department of Transportation Standard Construction Drawings (SCD) referenced on the plans.

<u>1.02</u> SUPPLEMENTAL SPECIFICATIONS:

01-00 - Project Documentation and Submittal Requirements for All Public Work Projects and Subdivision Developments

Supplemental Specification 01-00

PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS FOR ALL PUBLIC WORK PROJECTS AND SUBDIVISION DEVELOPMENTS

September, 2000 * Revised August, 2009

Project Submittals: The following listed items are the full responsibility of the Contractor. These items become part of the administrative duties imposed upon this Contract. The Contractor shall be responsible for submitting all detail items prior to the contract Notice of Commencement, or as directed by the City's Project Manager. A typewritten letter shall accompany all items, on Company letterhead; clearly describe each item submitted. If Contractor elects to fax any documentation due to expediency, the Contractor will be responsible for submitting hard copy for project documentation. The City will reject any information not clearly legible. **Submit four copies of the project submittals.**

Contractor will clearly affix a label or stamp identifying the submittal and its status for project review. All actions other than "no exception taken" will require supporting notation or information for project review.

Allow at least 10 business days for City's review and execution. The City Project Manager shall assist the Contractor with any questions or clarification during this process to ensure timely response to the Contractor.

The City will not pay directly for the performance of the work listed. This work is a subsidiary obligation of the Contractor.

- 1. Shop Drawings
- 2. Preconstruction Video
- 3. Progress Schedule
- 4. Release Statement for Disposal of Excavated Material
- 5. Traffic Control Plan
- 6. Contractor and Subcontractor Emergency Contact List
- 7. Statements of Final Compliance

1. Shop Drawings

- a) Upon written request from the Engineer, the Contractor shall submit detailed drawings, acceptable catalog data, specification and material certifications for all materials and/or equipment specialized or required for the proper completion of the work.
- b) Contractor shall submit shop drawings in not less than four (4) copies to the Engineer.
- c) Contractor shall submit shop drawings in proper sequence of construction to cause no delay in the work. The Engineer will have ten (10) business days to review submittals. The Contractor's failure to transmit appropriate submittals to the Engineer sufficiently in advance of work shall not be grounds for time extension. No work shall be performed

requiring shop drawings until same the Engineer has approved these shop drawings.

- d) Label each shop drawing with the following:
 - 1. Project Name
 - 2. Name of Contractor
 - 3. Name of Subcontractor (if applicable)
 - 4. Name and Address of Supplier and/or Manufacturer
 - 5. Log Reference Number
- e) The Contractor is responsible for reviewing and approving all shop drawings prior to submittal. The Engineer's review does not make him responsible for the accuracy of said drawings.
- 2. **Preconstruction Video:** Prior to actual construction, the Contractor shall take video recording of the entire length and width of the work site.
 - a) The Contractor shall notify the Engineering Department prior to scheduling the video recording of the site. A representative of the Engineering Department shall be present when the recording this video.
 - b) The video and audio recordings shall be on DVD or pre-approved alternative for replay. Contractor must submit alternative medium to the Engineer and approval received prior to scheduling.
 - c) The video portion shall have continuous time and date incorporated into it, locations and person(s) doing the work.
 - d) Audio comments during the recording must address each item in the field of view as it may pertain to the project construction. The recording technician will need to become familiar with the project plans to know what subject matter is pertinent. Further, contractor must incorporate a post recording review and audio comments into the recording.
 - e) Submitted copies of all recordings are the property of the Engineer. Contractor must submit the recording and be accepted in full by the Engineering Department prior to the start of construction.
- 3. **Progress Schedule:** The Contractor shall provide to the City, as mutually agreed upon at the Contract's Preconstruction meeting, a graphic progress schedule, which shall include the following:
 - a) Progress schedule as a minimum to be prepared in **CRITICAL PATH METHOD FORMAT (CPM)**. The schedule shall be submitted, as a minimum, on 11" x 17" format for clarity and any necessary notations. Progress schedule shall include all work activities relative to the project, as further described in the Contract. Activities and rate of expected progress to secure completion as set forth in the Contract shall be shown on the schedule. Contractor to annotate any milestones that may be indicated in the Contract. Project completion date shall be clearly defined on the original schedule and all ensuing schedules provided.
 - b) Schedules shall be updated, as a minimum, every 30 days, or as agreed to by the City's Project Manager.

4. Release Statement for Disposal of Excavated Materials

- (a) The Contractor shall provide to the City a written consent statement from all property owners whose property is a landfill depository for all surplus or unsuitable excavated material from the project site.
- (b) The Contractor shall follow ODOT 105.16 for specific guidelines and name the "City of Canton" in lieu of "the Department" on all forwarded documents. The City requires a contract or permit that contains the language stating that the City is not party to the contract or permit, the material is not the City's, and that the contractor and the property owner will hold the City harmless from claims that may arise from this contract or permit.
- (c) See attached sample copy for referencing purposes.
- 5. **Traffic Control Plan:** Contractor shall submit a graphical presentation or written document detailing the signage to be used and its location for maintenance of traffic. If traffic control will be performed in stages, submit a plan for each stage. Any proposed detours should be approved by the Engineer prior to plan submission.
- 6. **Contractor and Subcontractor Emergency Contact List:** Contractor shall submit to the Engineer, prior to commencing construction, a complete list of the Contractor's personnel associated with the project. List should include name, title, and emergency contact phone numbers for each individual.
- 7. **Statements of Final Compliance:** The Contractor shall submit to the City the following documentation, in addition to the Project's General Conditions. All submittals shall be completed and approved prior to the release of the final retainer.
 - a) <u>Certificates of Substantial and Final Completion.</u> Contractor shall submit in writing, the date on which work is substantially completed and upon Final Completion. Any deviation from the stated contract completion date to what is being submitted shall be explained further by the Contractor. The City, at their discretion, will further review this subject, as needed.
 - b) <u>Final Waiver of Lien</u>

Contractor shall furnish a written report indicating the resolution of any and all property damage claims filed with Contractor by any party during the contract period. The information shall include the name of claimant; date filed with Contractor; name of Insurance Company and/or Adjustor handling the claim; how the claim was resolved; if claim was not resolved for the full amount, a statement indicating the reason for such action. If there were no damage claims filed with the Contractor, then this shall be so stated in the report.

(SAMPLE COPY) Waste Disposal Agreement for Projects in the City of Canton

Items 1, 3 - 9 are optional and discretionary to the undersigned

THIS WASTE AGREEMENT, made this _____ day of _____ 20___, by and between

_____(called "Contractor"), and _____

(called "Land Owner"), concerning a certain construction contract in the City of Canton, OH for the

of

between the Contractor and ______ in the City of Canton, ______ (project), as follows:

- 1. <u>MANNER OF WASTING</u>: Land Owner grants to Contractor the exclusive right to place dirt, earth, rock, topsoil, subsurface, unsuitable and/or other excess material (called "waste material") upon the area described in the following paragraph without requirement, limit, or restriction as to depth, amount, manner, or time.
- 2. <u>WASTE AREA:</u> The property upon which Contractor is permitted to place material is commonly known as ______ (address).
- 3. <u>TITLE TO WASTE AREA</u>: The Land Owner warrants that it has title to and the right to contract for placement of waste material in said area and agrees to defend and indemnify Contractor against any claim, suit, or damage arising out of such title or right to contract.
- 4. <u>ACCESS AND USE:</u> Land Owner hereby grants Contractor the right of ingress and egress to the waste area in locations to be selected by Contractor for all purposes necessary to the complete fulfillment of this agreement, and the right of quiet enjoyment in the intended use of such area.
- <u>PAYMENT</u>: Contractor agrees to pay and Land Owner agrees to accept as full and final compensation for all rights granted and covenants contained herein and all claims of every nature the sum of ______ payable ______.
- 6. <u>BASIS OF MEASUREMENTS:</u> It is mutually agreed that measurement of the amount of materials wasted, where required, shall be made on the following basis: ______ and said measurement shall be binding upon the parties hereto for all purposes.
- 7. <u>DAMAGES</u>: Land Owner hereby waives any and all claims for damage to the waste area and to the area of ingress and egress except as specifically noted herein.
- 8. <u>RELEASE</u>: Upon receipt of final payment hereunder, and provided all terms of this agreement have been fulfilled, Land Owner hereby releases Contractor from further liability of any kind or nature hereunder.

CONTRACTOR:

Authorized Signature & Title

LANDOWNER:

Signature

^{9. &}lt;u>ENTIRE AGREEMENT:</u> It is agreed that the terms and conditions of this agreement are fully covered in the foregoing, and that any oral or written statements made by either party, or agents claiming to represent either party, not set forth herein, are not binding on the parties and are not considered as part of this Agreement.

^{10. &}lt;u>DISCLAIMER</u>: The City of Canton is not a party to the here above agreement. The Contractor and Landowner shall indemnify and save harmless the City of Canton from any claim that may arise from the here above agreement. The waste material is the property of the Contractor, not the City of Canton.

Signature and Proposal Pages

Signature Page Canton South Waterline Extension – Phase 1 (Human Health)

To the Director of Public Service of the City of Canton:

The undersigned, having carefully examined the complete invitation to bid, herewith proposes to furnish all the labor and materials required to complete the **Canton South Waterline Extension** – **Phase 1 (Human Health)** in accordance with the specifications on file, including any and all work and materials that may be necessary to complete the project in a proper and workmanlike manner, and in accordance with the instructions in the bid packet and under the direction of and to the satisfaction of the Director of Public Service of said City.

The bidder hereby agrees that the Director of Public Service has the right to reject any and all bids and to accept the bid(s) deemed most beneficial to the City of Canton.

The bidder hereby certifies that the undersigned _______ is the only person interested in the bid and the bidder herewith certifies that no officer or employee of the City of Canton is in any manner interested therein.

The bidder herewith encloses a ________(**BID BOND**, **CERTIFIED/CASHIER'S CHECK**) in the sum of \$ ______ dollars made payable to the CITY OF CANTON as a guaranty that if awarded the contract for the work included in the proposal, will enter into contract therefore, with sureties satisfactory to the Director of Public Service, within the prescribed time of ten (10) days from the date of service of notice of award, otherwise such bond or checks shall become the property of said City, as liquidated damages of the failure on the bidder's part to do said contract within the specified time.

The bidder acknowledges receipt of Addenda Numbers: ______.

SIGNATURE OF BIDDER: _____

NOTE: If bidder is a corporation, set forth the legal name of the corporation, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If bidder is a partnership, set forth the name of the firm, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Proposal Page

We (I), the above signed hereby propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications, and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

BASE BID									
ODOT ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE LABOR	UNIT PRICE MATERIAL	TOTAL UNIT PRICE	ITEM TOTAL		
VAY	·								
201	CLEARING AND GRUBBING (PHASE 1)	1	LUMP						
301	6" ASPHALT CONCRETE BASE, PG64-22	1703	C.Y.						
301	3 1/2" ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)	20	C.Y.						
304	6" AGGREGATE BASE	1396	C.Y.						
304	6" AGGREGATE BASE (DRIVEWAYS)	30	C.Y.						
407	TACK COAT (0.075 GAL/SY)	792	GAL						
410	6" TRAFFIC COMPACTED SURFACE, TYPE C (CRUSHED LIMESTONE - DRIVEWAYS)	5	C.Y.						
441	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28	462	C.Y.						
441	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28 (DRIVEWAYS)	13	C.Y.						
452	6" NON-REINFORCED CONCRETE PAVEMENT W/ 4" AGGREGATE BASE (ITEM 304) (RESIDENTIAL DRIVES)	18	S.Y.						
609	COMBINATION CURB AND GUTTER, TYPE 3	30	L.F.						
613	LOW STRENGTH MORTAR BACKFILL	27	C.Y.						
653	4" TOPSOIL FURNISHED AND PLACED (PHASE 1)	1	LUMP						
659	SEEDING AND MULCHING (PHASE 1)	1	LUMP						
	ITEM VAY 201 301 301 304 304 407 410 441 441 441 452 609 613 653	ODOT ITEMDESCRIPTIONVAY201CLEARING AND GRUBBING (PHASE 1)3016" ASPHALT CONCRETE BASE, PG64-223013 1/2" ASPHALT CONCRETE BASE, PG64-223013 1/2" ASPHALT CONCRETE BASE, PG64-223046" AGGREGATE BASE3046" AGGREGATE BASE3046" AGGREGATE BASE (DRIVEWAYS)407TACK COAT (0.075 GAL/SY)4106" TRAFFIC COMPACTED SURFACE, TYPE C (CRUSHED LIMESTONE - DRIVEWAYS)4111/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-284411 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28 (DRIVEWAYS)4526" NON-REINFORCED CONCRETE PAVEMENT W/ 4" AGGREGATE BASE (ITEM 304) (RESIDENTIAL DRIVES)609COMBINATION CURB AND GUTTER, TYPE 3613LOW STRENGTH MORTAR BACKFILL6534" TOPSOIL FURNISHED AND PLACED (PHASE 1)	ODOT ITEMDESCRIPTIONQTYVAY201CLEARING AND GRUBBING (PHASE 1)13016" ASPHALT CONCRETE BASE, PG64-2217033013 1/2" ASPHALT CONCRETE BASE, PG64-22203046" AGGREGATE BASE13963046" AGGREGATE BASE (DRIVEWAYS)30407TACK COAT (0.075 GAL/SY)7924106" TRAFFIC COMPACTED SURFACE, TYPE C (CRUSHED LIMESTONE - DRIVEWAYS)54411 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-284624411 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28 (DRIVEWAYS)134526" NON-REINFORCED CONCRETE PAVEMENT W/ 4" AGGREGATE BASE (ITEM 304) (RESIDENTIAL DRIVES)18609COMBINATION CURB AND GUTTER, TYPE 330613LOW STRENGTH MORTAR BACKFILL276534" TOPSOIL FURNISHED AND PLACED (PHASE 1)1	ODOT ITEMDESCRIPTIONQTYUNITVAY201CLEARING AND GRUBBING (PHASE 1)1LUMP3016" ASPHALT CONCRETE BASE, PG64-221703C.Y.3013 1/2" ASPHALT CONCRETE BASE, PG64-2220C.Y.3046" AGGREGATE BASE1396C.Y.3046" AGGREGATE BASE1396C.Y.3046" AGGREGATE BASE (DRIVEWAYS)30C.Y.407TACK COAT (0.075 GAL/SY)792GAL4106" TRAFFIC COMPACTED SURFACE, TYPE C (CRUSHED LIMESTONE - DRIVEWAYS)5C.Y.4411 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28 (DRIVEWAYS)13C.Y.4411 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28 (DRIVEWAYS)13C.Y.4526" NON-REINFORCED CONCRETE PAVEMENT W/ 4" AGGREGATE BASE (ITEM 304) (RESIDENTIAL DRIVES)18S.Y.609COMBINATION CURB AND GUTTER, TYPE 330L.F.613LOW STRENGTH MORTAR BACKFILL27C.Y.6534" TOPSOIL FURNISHED AND PLACED (PHASE 1)1LUMP	ODOT ITEMDESCRIPTIONQTYUNITUNIT PRICE LABORVAY201CLEARING AND GRUBBING (PHASE 1)1LUMP3016" ASPHALT CONCRETE BASE, PG64-221703C.Y.3013 1/2" ASPHALT CONCRETE BASE, PG64-2220C.Y.3046" AGGREGATE BASE1396C.Y.3046" AGGREGATE BASE1396C.Y.3046" AGGREGATE BASE (DRIVEWAYS)30C.Y.3046" AGGREGATE BASE (DRIVEWAYS)30C.Y.407TACK COAT (0.075 GAL/SY)792GAL4106" TRAFFIC COMPACTED SURFACE, TYPE C (CRUSHED LIMESTONE - DRIVEWAYS)5C.Y.4411 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28 (DRIVEWAYS)462C.Y.4411 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28 (DRIVEWAYS)13C.Y.4526" NON-REINFORCED CONCRETE PAVEMENT W/ 4" AGGREGATE BASE (ITEM 304) (RESIDENTIAL DRIVES)18S.Y.609COMBINATION CURB AND GUTTER, TYPE 330L.F.613LOW STRENGTH MORTAR BACKFILL 1)27C.Y.6534" TOPSOIL FURNISHED AND PLACED (PHASE 1)1LUMP	ODOT TEMDESCRIPTIONQTYUNITUNIT PRICE LABORUNIT PRICE LABOR201CLEARING AND GRUBBING (PHASE 1)1LUMP3016" ASPHALT CONCRETE BASE, PG64-221703C.Y.3013 1/2" ASPHALT CONCRETE BASE, PG64-2220C.Y.3016" AGGREGATE BASE1396C.Y.3046" AGGREGATE BASE1396C.Y.3046" AGGREGATE BASE (DRIVEWAYS)30C.Y.3046" AGGREGATE BASE (DRIVEWAYS)30C.Y.407TACK COAT (0.075 GAL/SY)792GAL4106" TRAFFIC COMPACTED SURFACE, TYPE C (CRUSHED LIMESTONE - DRIVEWAYS)5C.Y.4411 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28 (DRIVEWAYS)13C.Y.4411 1/4" ASPHALT CONCRETE SURFACE COURSE, (RESIDENTIAL DRIVES)13C.Y.4526" NON-REINFORCED CONCRETE PAVEMENT (RESIDENTIAL DRIVES)18S.Y.609COMBINATION CURB AND GUTTER, TYPE 330L.F.613LOW STRENGTH MORTAR BACKFILL27C.Y.6534" TOPSOIL FURNISHED AND PLACED (PHASE 1)1LUMP	ODOT TEMDESCRIPTIONQTYUNITUNIT PRICE LABORUNIT PRICE MATERIALTOTAL UNIT PRICE201CLEARING AND GRUBBING (PHASE 1)1LUMP3016" ASPHALT CONCRETE BASE, PG64-221703C.Y.3013 1/2" ASPHALT CONCRETE BASE, PG64-2220C.Y.3046" AGGREGATE BASE1396C.Y.3046" AGGREGATE BASE (DRIVEWAYS)30C.Y.3046" AGGREGATE BASE (DRIVEWAYS)30C.Y.407TACK COAT (0.075 GAL/SY)792GAL4106" TRAFFIC COMPACTED SURFACE, TYPE C (CRUSHED LIMESTONE - DRIVEWAYS)5C.Y.44111/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-2813C.Y.44111/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-28 (DRIVEWAYS)13C.Y.452W.4" AGGREGATE BASE (ITEM 304) (RESIDENTIAL DRIVES)18S.Y.609COMBINATION CURB AND GUTTER, TYPE 330L.F.613LOW STRENGTH MORTAR BACKFILL27C.Y.6534" TOPSOIL FURNISHED AND PLACED (PHASE 1)1LUMP		

BASE BID

BID ITEM	ODOT ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE LABOR	UNIT PRICE MATERIAL	TOTAL UNIT PRICE	ITEM TOTAL
WATER	RWORKS							
15	638	1" WATER SERVICE, COMPLETE, SHORT SIDE	154	EACH				
16	638	1" WATER SERVICE, COMPLETE, LONG SIDE	140	EACH				
17	638	2" WATER SERVICE, COMPLETE, SHORT SIDE	1	EACH				
18	638	2" WATER SERVICE, COMPLETE, LONG SIDE	1	EACH				
19	638	2" WATERLINE, POLYETHYLENE WITH FITTINGS	835	L.F.				
20	638	2" CURB VALVE AND VALVE BOX, COMPLETE	9	EACH				
21	638	2" BLOW OFF ASSEMBLY, COMPLETE	3	EACH				
22	638	6" WATER MAIN, DIP, CLASS 52	13195	L.F.				
23	638	8" WATER MAIN, DIP, CLASS 52	6570	L.F.				
24	638	12" WATER MAIN, DIP, CLASS 53	15	L.F.				
25	638	6" GATE VALVE AND VALVE BOX, COMPLETE	42	EACH				
26	638	6" 45° BEND	40	EACH				
27	638	6" 22.5° BEND	15	EACH				
28	638	6" 11.25° BEND	16	EACH				
29	638	6" PLUG WITH 2" OUTLET	12	EACH				
30	638	6"x6" TEE	12	EACH				
31	638	6"x6" CROSS	2	EACH				
32	638	6"x8" TEE	1	EACH				

BID ITEM	ODOT ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE LABOR	UNIT PRICE MATERIAL	TOTAL UNIT PRICE	ITEM TOTAL
33	638	8" GATE VALVE AND VALVE BOX, COMPLETE	20	EACH				
34	638	8" 45° BEND	13	EACH				
35	638	8" 22.5° BEND	16	EACH				
36	638	8" 11.25° BEND	5	EACH				
37	638	8"x6" TEE	7	EACH				
38	638	8"x8" TEE	3	EACH				
39	638	8"x6" REDUCER	6	EACH				
40	638	8" CUT-IN SLEEVE	2	EACH				
41	638	12" GATE VALVE AND VALVE BOX, COMPLETE	3	EACH				
42	638	12"x6" TEE	1	EACH				
43	638	12"x8" TEE	1	EACH				
44	638	12" CUT-IN SLEEVE	3	EACH				
45	638	12"x8" CROSS	1	EACH				
46	638	HYDRANT ASSEMBLY, COMPLETE	39	EACH				

BID ITEM	ODOT ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE LABOR	UNIT PRICE MATERIAL	TOTAL UNIT PRICE	ITEM TOTAL
INCIDE	NTALS							
47	614	MAINTAINING TRAFFIC, COMPLETE (PHASE 1)	1	LUMP				
48	623	CONSTRUCTION LAYOUT STAKES (PHASE 1)	1	LUMP				
49	624	MOBILIZATION	1	LUMP				
50	832	STORM WATER POLLUTION PREVENTION PLAN	1	LUMP				
51	832	EROSION CONTROL, COMPLETE	1	LUMP				
		BASE BID TOTAL =						

Base Bid Price in Figures

Base Bid Price in Words

Base Bid Prices are for Informational Purposes Only. Total Unit Prices will govern.