

# Special Specification 7135

## Water Main and Sanitary Sewer Line Replacements



### 1. DESCRIPTION

Furnish, install, or replace water pipe, water valves, pipe fittings, steel encasement pipes for water lines, sewer pipe, steel encasement pipe for sanitary sewer lines, manholes and supporting materials in conformance with the City of Fort Worth requirements and details shown on the plans. Obtain necessary permits, provide testing as necessary, and request inspection of the completed water and sewer lines prior to being placed in service. All work shall be performed in accordance with City of Fort Worth Technical Specifications.

### 2. PREQUALIFICATION

In addition to TxDOT's prequalification, water and sewer utility improvements included in this project must be performed by a Contractor who is prequalified by the Fort Worth Water Department at the time of the bid opening. Reference the following attached specifications for bidder prequalification requirements:

- 00 45 11 – Bidders Prequalification's
- 00 45 12 – Prequalification Statement
- 00 45 13 – Bidder Prequalification Application

### 3. MATERIALS

Furnish all materials in accordance with the requirements shown in the Contract Documents. See Article 6, "Measurement", Table 1 - Section A: Water and Table 2 - Section B: Sewer, in this document. All utility components composed of more than 90% steel or iron by weight shall conform to "Buy America" Guidelines.

### 4. PERMITS, TESTING, AND INSPECTION

4.1. **Permits.** Acquire all necessary permits from the City of Fort Worth to perform the work. Please contact the following entities as needed:

- Fort Worth Water Department – Field Operations: (817) 392-8296
- Fort Worth Transportation and Public Works: (817) 392-8100

4.2. **Testing.** Provide testing for water mains and sewer lines in conformance to the City of Fort Worth requirements or as directed by the Engineer. Perform the following testing as minimum:

- For water mains: hydrostatic test, poly pigging, and disinfection test.
- Reference Specification – 33 04 40 – "Cleaning and Acceptance Testing of Water Mains."
- For sewer lines: Cleaning, low pressure air test, deflection (Mandrel) test, vacuum testing, and pre- and post-construction Closed Circuit Television (CCTV) Inspection.
- Reference Specification – 33 01 30 – "Sewer and Manhole Testing" and 33 01 31 – "Closed Circuit Television (CCTV) Inspection."

4.3. **Inspection.** All water mains, sewer lines, and their appurtenances will be inspected by a representative of the City of Fort Worth. These representatives' decision of acceptability of the installation will be final. The City of Fort Worth will hold 2 final inspections, one at water and sewer line completion and the other at roadway completion for final utility grade adjustments according to Specification Section 33 05 14.

## 5. CONSTRUCTION

Protect all water mains, sewer lines, vaults and appurtenances at all times during the construction. Promptly repair, at no additional cost to the Owner, any damage to the existing water or sewer system and any interruption to the services such as line stoppages or breakage caused by the Contractor's operation. Follow Location of Existing Utilities Specification Section 33 05 30, per City of Fort Worth requirements.

5.1. **Construction Staking.** The construction staking and survey shall be done by the contractor according to the follow specification:

- Specification – 01 71 23(M) – Construction Staking and Survey - MODIFIED

**Specifications.** Perform the work in such a manner consistent with current City of Fort Worth standards and specifications. All **Technical** Specifications listed below are included in this project. Only Specifications that have been modified (**M**) by the Engineer specifically for this project are included in the hard copy of the Project's Contract Documents. The remaining Specifications may be viewed or downloaded from the City's Buzzsaw site at: <https://projectpoint.buzzsaw.com/client/fortworthgov/Resources/02%20-%20Construction%20Documents/Specifications>

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5.2. **Submittals.** Submit the following submittals and types per “Submittal Log Table” attached according to Specification Section 01 33 00 – “Submittals.”

## 6. MEASUREMENT

Water main and sewer line Pay Items are shown below in Table 1 and Table 2. The Items will be measured as shown in the “Unit”

**Table 1**  
**Section A: Water**

TxDOT Item No.	Description Code	FTW Bid Item No.	Fort Worth Bid Item Description	FW Spec	Unit
	6001***	0241.1001	Water Line Grouting	02 41 14	CY
	6002***	0241.1206	16" Water Abandonment Plug	02 41 14	EA
	6003***	3291.0100	Topsoil	32 91 19	CY
	6004***	3292.0100	Block Sod Placement	32 92 13	SY
	6005***	3304.0002	Cathodic Protection	33 04 12	LS
	6006***	3305.0109	Trench Safety	33 05 10	LF
	6007***	3305.0110	Utility Markers	33 05 26	LS
	6008***	3305.1104	24" Steel Casing by Other Than Open Cut	33 05 22	LF
	6009***	3305.2005	16" Water Carrier Pipe	33 05 24	LF
	6010***	3311.0001	Ductile Iron Water Fittings w/Restraint	33 11 11	TON
	6011***	3311.0551	16" DIP Water	33 11 10	LF
	6012***	3312.0106	Connection to Existing 16" Water Main	33 12 25	EA
	6013***	3312.6002	6" Blow-Off Valve	33 12 60	EA
	6014***	9999.0001	Remove Existing Blow-Off and Sump Manhole	02 41 14	EA
	6015***	9999.0002	Construction Staking	01 71 23	LS
	6016***	9999.0003	Construction Survey	01 71 23	LS

**Table 2**  
**Section B: Sewer**

TxDOT Item No.	Description Code	FTW Bid Item No.	Fort Worth Bid Item Description	FW Spec	Unit
	6017***	0241.2001	Sanitary Line Grouting	02 41 14	CY
	6018***	0241.2113	30" Sewer Abandonment Plug	02 41 14	EA

6019***	0241.2202	Remove 5' Sewer Manhole	02 41 14	EA
6020***	3291.0100	Topsoil	32 91 19	CY
6021***	3292.0100	Block Sod Placement	32 92 13	EA
6022***	3301.0001	Pre-CCTV Inspection	33 01 31	LF
6023***	3301.0002	Post-CCTV Inspection	33 01 31	LF
6024***	3301.0101	Manhole Vacuum Testing	33 01 30	EA
6025***	3303.0001	Bypass Pumping	33 03 10	LF
6026***	3305.0109	Trench Safety	33 05 10	LF
6027***	3305.0110	Utility Markers	33 05 26	EA
6028***	3305.0112	Concrete Collar	33 05 17	EA
6029***	3305.1007	42" Steel Casing By Open Cut	33 05 22	LF
6030***	3305.3012	30" Sewer Carrier Pipe	33 05 24	LF
6031***	3331.3401	Ductile Iron Sewer Fittings	33 11 11	TON
6032***	3331.4405	30" DIP Sewer	33 11 10	LF
6033***	3339.1101	5' Manhole	33 39 10, 33 39 20	EA
6034***	3339.0001	Epoxy Manhole Liner (SpectraShield)	33 39 60	VF
6035***	3339.1103	5' Extra Depth Manhole	33 39 10, 33 39 20	EA
6036***	9999.0002	Construction Staking	01 71 23	LS
6037***	9999.0003	Construction Survey	01 71 23	LS

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## 7. PAYMENT

The work performed and materials furnished in accordance with the Pay Items and measured as provided under "Measurement," will be paid for at the unit price bid for the various items specified on the plans. This price is for full compensation for furnishing all equipment, materials, tools, labor, permits, testing, and incidentals necessary to satisfactorily complete the work as detailed on the plans including excavation, embedment, and backfill.