

# Special Specification 7211

## Sanitary Sewer Lines, Water Mains and Appurtenances



### 1. DESCRIPTION

Furnish and install all materials, equipment, and labor listed in the Special Specification "Sanitary Sewer Lines, Water Mains and Appurtenances" herein known as the Document and all materials shown on the plans.

Information can be obtained at the Capital Improvement Program/ Engineering Services Department for the City of Irving, Texas, 825 W. Irving Blvd., Irving, TX 75060, and Telephone (972)721-2600.

### 2. MATERIALS

Install piping systems using the materials designated on the plans and in details shown for each particular system. Furnish materials so designated in accordance with all material requirements of the attached Document.

### 3. CONSTRUCTION

Perform work in a manner consistent with the Document and the following Specifications, Addendums and Standards necessary to perform the work:

- 3.1. The General Specifications (Standard Specifications for Public Works Construction – North Central Texas Council of Governments - Latest Edition) – A copy of the Standard Specifications for Public Works Construction may be obtained from the North Central Texas Council of Governments, 616 Six Flags Drive, Arlington, Texas, Telephone (817) 640-3300.
- 3.2. The applicable City of Irving Standard Specifications (Latest Edition) ( <http://www.cityofirving.org/138/CIP-Engineering-Downloads> ) :
- 01 - GENERAL REQUIREMENTS
    - SECTION 01005 APPROVED PRODUCTS LISTING
    - SECTION 01517 WASTEWATER OVERFLOWS/SPILLS
  - 02 - SITE WORK
    - SECTION 02014 EXISTING UTILITIES
    - SECTION 02015 WASTEWATER MAINS
    - SECTION 02016 WASTEWATER MANHOLES
    - SECTION 02019 WATER LINE RELOCATION
    - SECTION 02020 MANHOLE ABANDONMENTOR MANHOLE REMOVAL
    - SECTION 02022 TRENCH SPANS
    - SECTION 02025 WASTEWATER ADJUSTMENT
    - SECTION 02026 WASTEWATER SERVICE RELOCATION
    - SECTION 02034 MANHOLE TESTING
    - SECTION 02035 MANHOLE GROUTING
    - SECTION 02036 CLEANING AND TELEVISION INSPECTION OF EXISTING WASTEWATER
    - SECTION 02040 WASTEWATER LINE ABANDONMENT

- SECTION 02200 TRENCHING, EMBEDMENT AND BACKFILLING
- SECTION 02201 BORROW (NATIVE BORROW) (DELIVERED)
- SECTION 02224 PIPE BORING, JACKING AND TUNNELING
- SECTION 02225 STEEL ENCASEMENT PIPE BY OPEN CUT
- SECTION 02300 UTILITY MARKINGS
- SECTION 02400 TRENCH SAFETY – SHEETING AND SHORING
- SECTION 02528 REMOVING EXISTING ASPHALT FLATWORK
- SECTION 02529 REMOVING EXISTING CONCRETE FLATWORK
- SECTION 02601 PAVEMENT REPAIR
- SECTION 02604 UTILITY ADJUSTMENTS
- SECTION 02615 REMOVE AND REPLACE FENCE
- SECTION 02620 CONCRETE SIDEWALKS, CURB & GUTTER
- SECTION 02622 ASPHALT AND CONCRETE DRIVEWAY REPAIR
- 03 - CONCRETE
  - SECTION 03300 CONCRETE THRUST BLOCKS
  - SECTION 03301 CONCRETE ENCASEMENT
  - SECTION 03600 PERVIOUS CELLULAR CONCRETE FILL
  - SECTION 03601 IMPERVIOUS CELLULAR CONCRETE FILL
- 15 - MECHANICAL
  - SECTION 15041 WASTEWATER LINE TESTING
  - SECTION 15042 WATER PIPE TEST
  - SECTION 15043 WATER DECHLORINATION
  - SECTION 15044 WATER MAIN ABANDONMENT
  - SECTION 15045 REMOVAL OF ASBESTOS-CEMENT PIPE (ACP)
  - SECTION 15060 WATER PIPE AND FITTINGS
  - SECTION 15064 METAL TRACER TAPE
  - SECTION 15065 WET CONNECTION
  - SECTION 15094 WATER METER BOXES
  - SECTION 15095 WATER SERVICES
  - SECTION 15096 WATER METER RELOCATION
  - SECTION 15101 GATE VALVES AND BUTTERFLY VALVES
  - SECTION 15109 FIRE HYDRANTS
  - SECTION 15110 FIRE HYDRANT SALVAGE AND BACKFILL
  - SECTION 15200 CUTTING, PLUGGING, AND BLOCKING OF EXISTING WATER MAINS
  - SECTION 15300 REMOVE AND REPLACE WATER METER AND VAULT ASSEMBLY

3.3.

City of Irving Special Technical Specifications for the Jamison Water Line Relocation  
<https://www.cityofirving.org/138/CIP-Engineering-Downloads>

- SECTION 02200-J PIPELINE EXCAVATION AND BACKFILL
- SECTION 02301-J DEWATERING OF SHAFTS, TUNNELS AND PORTAL EXCAVATIONS
- SECTION 02302-J EXCAVATION SUPPORT SYSTEMS FOR PORTALS AND SHAFTS
- SECTION 02303-J STEEL JACKED CASING, STEEL LINER PLATE, AND EXPANDABLE LINER BY TUNNELING
- SECTION 02304-J INSTALLATION OF CARRIER PIPE IN TUNNEL
- SECTION 02305-J GEOTECHNICAL INSTRUMENTATION AND MONITORING
- SECTION 02400-J TRENCH SAFETY SYSTEMS

- SECTION 02402-J CARE OF WATER DURING CONSTRUCTION
  - SECTION 03610-J ANNULAR BACKFILL FOR CARRIER PIPE IN TUNNELS
  - SECTION 15040-J HYDROSTATIC TESTING
  - SECTION 15044-J ABANDONMENT OF WATER MAINS
  - SECTION 15060-J BAR WRAPPED CONCRETE CYLINDER PIPE AND FITTINGS
  - SECTION 15061-J WATER MAIN ACCESS MANHOLES
  - SECTION 15085-J COMBINATION AIR RELEASE AND VACUUM RELIEF VALVES
  - SECTION 15087-J BLOW OFF VALVES FOR WATER SERVICE
  - SECTION 15101-J BUTTERFLY VALVES
  - SECTION 15150-J MISCELLANEOUS PIPELINE VALVES AND APPURTENANCES
  - SECTION 15240-J CORROSION PROTECTION SYSTEMS
- 3.4. City of Irving Water and Wastewater Details, Latest Edition – A copy of the City of Irving Water and Wastewater Details can be obtained at <http://www.cityofirving.org/138/CIP-Engineering-Downloads>
- 3.5. Occupational Safety and Health Standards - Excavations, 29 CFR Part 1926; effective January 2, 1990 (or Latest Edition).
- 3.6. City of Irving Standard Details can be obtained at <http://www.cityofirving.org/138/CIP-Engineering-Downloads>
- 3.7. Inspection. The sanitary sewer and water mains and appurtenances will be inspected by a representative of the City of Irving. These representatives' decision of acceptability of the installation will be final.

#### 4. MEASUREMENT

This Item will be measured as follows and as explicitly detailed in the Document:

Table1  
Pay Items

Description Code	Description	Unit
6001	Steel Fence Removal & Replacement	LF
6002	Remove & Dispose Wastewater Manhole	EA
6003	Abandon In-Place Wastewater Manhole	EA
6004	Adjust Manhole Rim to Grade	EA
6005	Abandon 6 in Wastewater Main	LF
6006	Abandon 8 in Wastewater Main	LF
6007	Abandon 10 in Wastewater Main	LF
6008	Abandon 12 in Wastewater Main	LF
6009	Abandon 15 in Wastewater Main	LF
6010	Remove & Dispose 6 in Wastewater Main	LF
6011	Remove & Dispose 8 in Wastewater Main	LF
6012	Remove & Dispose 10 in Wastewater Main	LF
6013	Remove & Dispose 12 in Wastewater Main	LF
6014	Remove & Dispose 15 in Wastewater Main	LF
6015	Adjust Water Meter to Grade	EA
6016	Relocate 3/4 in Meter & Box	EA
6017	Relocate 1 in Meter & Box	EA
6018	Relocate 1 1/2 in Meter & Box	EA
6019	Relocate 2 in Meter & Box	EA
6020	Remove & Replace DCDA & Vault 1	LS
6021	Remove & Replace DCDA & Vault 2	LS
6022	Remove & Replace DCDA & Vault 3	LS
6023	Remove & Replace DCDA & Vault 4	LS
6024	Adjust Valve Stem to Grade	EA
6025	Remove & Salvage 6 in Gate Valve	EA
6026	Remove & Salvage 8 in Gate Valve	EA
6027	Remove & Salvage 12 in Gate Valve	EA
6107	Remove & Salvage 18 in Gate Valve	EA
6028	Remove & Salvage Fire Hydrant Assy	EA
6029	Remove & Dispose 6 in Water Main	LF
6030	Remove & Dispose 8 in Water Main	LF
6031	Remove & Dispose 10 in Water Main	LF
6032	Remove & Dispose 12 in Water Main	LF
6033	Remove & Dispose 16 in Water Main	LF
6034	Remove & Dispose 18 in Water Main	LF
6035	Abandon In-Place 6 in Water Main	LF
6036	Abandon In-Place 8 in Water Main	LF
6037	Abandon In-Place 10 in Water Main	LF
6038	Abandon In-Place 12 in Water Main	LF
6039	Abandon In-Place 16 in Water Main	LF
6040	Abandon In-Place 18 in Water Main	LF
6041	Remove Asphalt Driveway Pavement	SY
6042	Remove Concrete Driveway Pavement	SY

6043	Asphalt Driveway Pavement Repair	SY
6044	Concrete Driveway Pavement Repair	SY
6045	Concrete Curb & Gutter	LF
6046	6 in - 12 in Temporary Water Line	LF
6047	Trench, Embed & Backfill (Wastewater)	LF
6048	Trench Safety (Wastewater)	LF
6049	Utility Markings (Wastewater)	EA
6050	Install 4 in - 8 in SDR 35 PVC San Sewer By Plumber	LF
6051	8 in SDR 26 D2241 PVC Wastewater Main	LF
6052	10 in SDR 26 D2241 PVC Wastewater Main	LF
6053	15 in SDR 26 D2241 PVC Wastewater Main	LF
6054	Instl 20 in(1/2 inTh Stl Cas)(SS)(Opn Cut)	LF
6055	Instl 20 in(1/2 inTh Stl Cas)(SS)(Jk&Bore)	LF
6056	Instl 24 in(1/2 inTh Stl Cas)(SS)(Opn Cut)	LF
6057	Instl 24 in(1/2 inTh Stl Cas)(SS)(Jk&Bore)	LF
6058	Instl 30 in(1/2 inTh Stl Cas)(SS)(Opn Cut)	LF
6059	Instl 30 in(1/2 inTh Stl Cas)(SS)(Jk&Bore)	LF
6060	Construct 4' Wastewater Manhole	EA
6061	Construct 5' Wastewater Manhole	EA
6062	Construct 6' Wastewater Manhole	EA
6063	Construct 4' Wastewater Drop Manhole	EA
6064	Construct 5' Wastewater Drop Manhole	EA
6065	Construct 6' Wastewater Drop Manhole	EA
6066	Extra Depth 4' Wastewater Manhole	VF
6067	Extra Depth 5' Wastewater Manhole	VF
6068	Extra Depth 6' Wastewater Manhole	VF
6069	Install Sanitary Sewer Cleanout	EA
6070	Wastewater Service Relocation	EA
6071	Connect to Existing Water Main	EA
6072	Trench, Embed & Backfill (Water)	LF
6073	Trench Safety (Water)	LF
6074	Utility Markings (Water)	EA
6075	Install 3/4 in - 6 in PVC Water Pipe by Plumber	LF
6076	6 in CL 235 C900 PVC Water Pipe	LF
6077	8 in CL 235 C900 PVC Water Pipe	LF
6078	12 in CL 235 C900 PVC Water Pipe	LF
6108	16 in CL 235 C900 PVC Water Pipe	LF
6079	18 in CL 235 C900 PVC Water Pipe	LF
6080	Instl 20 in(1/2 inTh Stl Cas)(WL)(Opn Cut)	LF
6081	Instl 20 in(1/2 inTh Stl Cas)(WL)(Jk&Bore)	LF
6082	Instl 24 in(1/2 inTh Stl Cas)(WL)(Opn Cut)	LF
6083	Instl 24 in(1/2 inTh Stl Cas)(WL)(Jk&Bore)	LF
6084	Instl 30 in(1/2 inTh Stl Cas)(WL)(Opn Cut)	LF
6085	Instl 30 in(1/2 inTh Stl Cas)(WL)(Jk&Bore)	LF
6086	Install 6 in Gate Valve	EA
6087	Install 8 in Gate Valve	EA
6088	Install 12 in Gate Valve	EA
6109	Install 16 in Butterfly Valve & Manhole	EA
6089	Install 18 in Butterfly Valve & Manhole	EA
6090	Install Fire Hydrant Assembly	EA

6091	Install DCDA and Vault	EA
6092	Wrapped Iron Fittings	LB
6110	Chain Link Fence (Remove)	LF
6111	Chain Link Fence (Install)	LF
6093	Trench Excavation Safety and Support	LF
6094	48-inch AWWA C303 Bar Wrapped Concrete Cylinder Water Pipe	LF
6095	Install 72" steel encasement, 0.9375-in thick, jack & bore	LF
6096	Install 72" Steel Encasement, 0.5-in thick, jack & bore	LF
6097	Abandon Existing 48-inch Bar Wrapped Concrete Cylinder Pipe	CY
6098	4" Air Valve Installation with 72" Access Manhole	EA
6099	48" Butterfly Valve with 72" Access Manhole	EA
6100	72" Access Manhole with Blowoff Valve	EA
6101	Corrosion Control Test Stations and Cathodic Protection System	LS
6102	Remove and replace reinforced concrete paving	SY
6103	Remove and replace asphalt paving	SY
6104	Storm Water Pollution Prevention Plan	LS
6105	Remove and Replace Existing Fence	LF
6106	Remove and Relocate Ex. Light Standards/Poles	EA

---

## 5. PAYMENT

The work performed with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for the various items of work. These prices shall be full compensation for furnishing all labor, tools, equipment and incidentals necessary to satisfactorily complete the work prescribed in the Document and as detailed on the plans.