

SECTION 33 31 14

SANITARY SEWER SERVICES

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Sanitary sewer service pipe

B. Related Sections

1. Section 33 05 05 – Trenching and Backfilling
2. Section 33 08 30 – Commissioning of Sanitary Sewer Utilities
3. Section 33 31 00 – Sanitary Utility Sewer Piping

1.02 REFERENCES

A. American Society of Testing Materials (ASTM)

1. C1173 – Specification for Flexible Transition Couplings for Underground Piping Systems.
2. D1784 – Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (PVC) Compounds.
3. D2564 – Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems.
4. D2665 – Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent (DWV) Pipe and Fittings.
5. D2672 – Specification for Joints for IPS PVC Pipe Using Solvent Cement
6. D2855 – Standard Practice for Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings
7. D3034 – Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
8. D3212 – Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
9. F477 – Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

B. American Water Works Association (AWWA)

1. C900 – Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fitting, 4 Inches through 12 Inches, for Water Distribution.

1.03 SUBMITTALS

A. Submit the following items consistent with Section 01 33 00:

1. Product data for the following items:
 - a. Pipe and fittings.

- b. Transition couplings.
- c. Tracer wire.

B. Services: Location of wye from downstream manhole, length of service lines, and depth.

1.04 SITE CONDITIONS

- A. All work must be confined to construction easements or public right-of-way.
- B. Verify sanitary sewer service locations prior to the start of any construction.

1.03 SEQUENCING AND SCHEDULING

- A. Install sanitary sewer, water main, and all pipe deeper than the services prior to the installation of the services.

PART 2 PRODUCTS

2.01 SOLID WALL PVC PIPE

- A. Polyvinyl Chloride (PVC)
 - 1. General: Pipe shall be made of compounds conforming to ASTM D1785 for Schedule 40 or heavier PVC pipe.
 - 2. Design: Cast-iron-pipe-equivalent outside diameter with a minimum pressure class (PC) or dimension ratio (DR) as shown on the Drawings.
 - 3. Joints: Integral bell with elastomeric gasket joints providing a water-tight seal conforming to ASTM D3212 or ASTM F477.
 - 4. Joint cement shall consist of a viscous, brushable solution of polyvinyl chloride in suitable active solvents. The cement shall be purchased from the pipe manufacturer and used in accordance with the manufacturer's instructions. It shall produce a joint of sufficient strength to permit normal installation handling within five minutes after jointing when exercising reasonable care.

2.02 BEDDING MATERIAL

- A. See Section 33 05 05.

2.03 TRANSITION COUPLING

- A. Coupling consisting of an elastomeric sleeve with incorporating stainless steel tension bands, tightening mechanism, and less than 0.01 inch thick shear ring conforming to ASTM C1173, Type A.

- B. HDPE adjustment rings allowed.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Installation: Similar to main line sanitary sewer pipe installation, conforming to the requirements of Section 33 31 00
- B. All proposed service line locations are shown on the Drawings.
- C. Reconnect Existing Service
 - 1. Saw cut existing sewer service at connection point and remove existing pipe.
 - 2. Engineer must inspect the service pipe condition prior to connection.
 - 3. During service reconnections, the Contractor should anticipate variations in size of existing pipe.
 - 4. Connect new pipe to existing pipe with a transition coupling approved by the Engineer
 - a. Place 1 inch to 2 inches of clear rock around the connection to prevent joint offsetting a minimum of 12 inches on all sides of the pipe.
- D. Record actual depth and station at end of service.
- E. Cleanout required every 100 ft of sewer service pipe and at each bend whichever is less.
 - 1. Cleanouts shall be of the same diameter as the sewer line the cleanout is connected to.