

Special Provision to Item 7214

Water Systems



Item 7214, "Water Systems" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

- 3.2.1. Polyvinyl Chloride (PVC) Pressure Pipe.** The following specifications cover the requirements for polyvinyl chloride (PVC) pressure plastic pipe materials and installation for potable water use and apply to PVC pipe, sizes 2 in. through 60 in. diameters.
- 3.2.1.3. Standards.** Comply with the applicable requirements of the following items listed below. In case of conflict between the requirements of this Specification and those of the listed documents, the requirements of this Section will prevail.
- ANSI/NSF 61 Drinking Water System Components – Health Effects
 - ASTM F-477 Specifications for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
 - ASTM D-1784 Specifications for Rigid Polyvinyl Chloride (PVC) Compounds and Chlorinated Polyvinyl Chloride (CPVC) Compounds
 - ASTM D-2241 Standard Specification for Poly Vinyl Chloride (PVC) Pressure-Rated Pipe (SDR Series)
 - ASTM D-2774 Recommended Practice for Underground Installation of Thermoplastic Pressure Piping
 - ASTM D-2837 Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials
 - ASTM D-3139 Standard Specifications for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals
 - AWWA C-605 Underground Installation of Polyvinyl Chloride (PVC) and Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe and Fittings
 - AWWA C-651 Standard for Disinfecting Water Mains
 - AWWA C-900 Standard for Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4-in. through 60-in.
 - AWWA M-23 Manual: PVC Pipe – Design and Installation
 - UNI-BELL-3 Polyvinyl Chloride (PVC) Pressure Pipe (Complying with AWWA Standard C-900)
 - Texas Commission on Environmental Quality, Chapter 290 – Public Drinking Water
- 3.2.1.5. Pipe Materials.** Meet the requirements of ASTM D-2241 (SDR 21) for 2 in. and AWWA C-900 for 4 in. through 60 in. sizes. Provide pipe that is Underwriters (UL) approved. Furnish all PVC pressure pipe in cast iron pipe equivalent outside diameters and a standard laying length of 20 ft. Provide a minimum pressure class of 200 psi (SDR 21) for 2 in. (ASTM D-2241 SDR 21), 235 psi (DR 18) for 4 in. through 36 in. diameters and a minimum pressure class of 165 psi (DR 25) for 42 in. through 60 in. diameters.
- 3.3.1. Water Main (PVC) (SDR-21 D2241), (DR- 18 C900), or (DR- 18 C900 RJ), or Uncased Bore.** This Item will be measured in place by the foot of PVC or steel casing pipe along the centerline of pipe as installed.
- 3.4.1. Water Main (PVC) (SDR 21 D2241), (DR 18 C900), or (DR 18 C900 RJ), or Uncased Bore.** The work performed and the materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Water Main (PVC) (SDR 21 D2241)(Size)" "Water Main (PVC) (DR 18 C900)(Size)", or "Water Main (PVC) (DR 18 C900 RJ)(Size)", or "Uncased Bore(Size)" of the type and size specified. This price is full compensation for furnishing all required materials, including all pipe (including RJ, which is restrained joint), fittings and accessories; mechanical joint restraints; and all appurtenances defined herein to include, but not limited to the following items: concrete collars, end plugs, bends, tees, couplings, reducers, fiberglass markers, tracer wire, concrete thrust blocks, thrust restraint devices and all other items for the project not indicated as being covered under the other specific bid items shown on the proposal; furnishing all required labor, including coordination, traffic control, potholing,

excavation, including hand-digging, if needed; embedment and backfilling; compaction and compaction testing; disinfection, pressure testing, dewatering of groundwater, or uncased bore (as required and shown) where required.

All fittings and appurtenances which will be required for a complete installation of the proposed water main and are not listed on the plans or these specifications will not be paid for directly but will be subsidiary to the water pipe installation.

Trench excavation protection will not be paid directly but will be subsidiary to the water pipe installation.

4.1.1. Standard Cover and Location. Standard cover and location depends on the water main size and installation conditions and is generally

- 2 in. through 12 in. diameter Main: Minimum of 4-ft. cover from top of pipe to finished grade. Contractor will make adjustments as required to increase the cover to prevent damage from excavation required for working depth of the proposed roadway improvements.
- Crossing under proposed storm sewer: Minimum of 2-ft. cover from top of pipe to bottom of proposed storm sewer.
- Location and cover with respect to existing and/or proposed sanitary sewer lines must be in accordance with 30 TAC 290.44. (e).