

San Antonio Water System Standard Specifications for Construction

ITEM NO. 840

Water Tie-Ins

840.1 DESCRIPTION: This item shall consist of water main tie-ins installed in accordance with these specifications and as directed by the Engineer. A Water Tie-In is defined as a connection between a new main and an existing main that is no longer than one joint of pipe.

840.2 REFERENCED STANDARDS: Reference standards cited in this Specification Item No. 840 refer to the current reference standard published at the time of the latest revision date.

1. San Antonio Water System (SAWS):
 - a. Specifications for Water and Sanitary Sewer Construction
 - b. SAWS Materials Specifications
2. City of San Antonio (COSA) Specifications for Construction
3. Texas Commission of Environmental Quality (TCEQ)
 - a. Chapter 290; Subchapter D – Rules and Regulations for Public Drinking Water
4. American National Standard Institute
 - a. ANSI A 21.11/AWWA C111 - Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
 - b. ANSI/NSF Standard 61 - Drinking Water System - Health Components.
5. American Society for Testing and Materials (ASTM) International: Pressure Pipe and Fittings.
 - a. ASTM A 36 - Standard Specification for Carbon Structural Steel.
 - b. ASTM A 536 - Standard Specification for Ductile Iron Castings.
 - c. ASTM A 126 - Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings.
 - d. ASTM B 21 - Standard Specification for Naval Brass Rod, Bar, and Shapes.
 - e. ASTM B 98 - Standard Specification for Copper-Silicon Alloy Rod, Bar, and Shapes.
 - f. ASTM B 301 - Standard Specification for Free-Cutting Copper Rod and Bar.
 - g. ASTM B 584 - Standard Specification for Copper Alloy Sand Casting for General Application.
 - h. ASTM E 165 - Standard Test Method for Liquid Penetrant Examination.
 - i. ASTM E 709 - Standard Guide for Magnetic Particle Examination.
 - j. ASTM F 1674 - Standard Test Method for Joint Restraint Products for Use with PVC Pipe.
5. American Water Works Association (AWWA)
 - a. AWWA C 206 - Standard for Field Welding of Steel Water Pipe.
 - b. AWWA C 207 - Standard for Steel Pipe Flanges for Waterworks Service - Sizes 4 Inches through 144 Inches

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- c. AWWA C 800 - Standard for Underground Service Line Valves and Fittings.
6. Occupational Safety and Health Administration
 1. OSHA 29 CFR 1926.1101 - Asbestos

840.3 SUBMITTALS: Contractor shall submit manufacturer's product data, instructions, recommendations, shop drawing, and certifications. All submittals shall be in accordance with Engineer's requirements and submittals shall be approved prior to delivery.

840.4 MATERIALS: The materials for water main tie-ins shall conform to the specifications contained within the latest revision of SAWS' Material Specifications for all appropriate items.

840.5 CONSTRUCTION: The Contractor shall make tie-ins from new water mains to existing water mains as shown in the contract documents or as directed by the Engineer.

1. The Contractor shall be responsible for all shutdowns and isolation of the existing mains; cutting pipe for the connection; dewatering the excavation; customer notification of the shutdown; and all other requirements as directed and coordinated through the Inspector in order to provide completion of this effort in a safe and secure manner.
2. The operation of SAWS valves can only be performed in the presence of the Inspector.
3. Work performed by the Contractor on mains 16 inches and larger, and any valves identified as critical will require operation of any valves by SAWS Distribution and Collection Department.
4. The planned shutdown and tie-in work and hours shall be coordinated through and approved by the Inspector with a minimum of two weeks prior to such activities and accomplished at a time which will be at the least inconvenience to the customers.
5. No additional compensation will be provided for tie-ins accomplished after normal working hours.
6. Prior to installation of tie-ins, all materials and equipment to complete tie in work shall be on-site and verified by the inspector prior to beginning any associated work.
7. If System allows, multiple Tie-ins must be coordinated and approved in advance with SAWS' Inspector, but multiple tie ins may not be guaranteed.
8. Contractor to be prepared to shutdown if coordinated with Inspector. Fines may be assessed if Contractor cancels or delays owner.
9. Contractor to consider dewatering of the main as part of the duration of tie-in work.
10. SAWS cannot guarantee a complete water shutdown, Contractor is responsible for providing adequate dewatering efforts to complete tie-in work
11. Contractor is responsible for providing temporary water connections to critical services that are required to stay in service during the tie-in or where a tie-in duration will affect a critical services normal operation.
12. All tie-ins must be restrained in accordance with Specification Item No. 839,

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"Anchorage/Thrust Blocking And Joint Restraint."

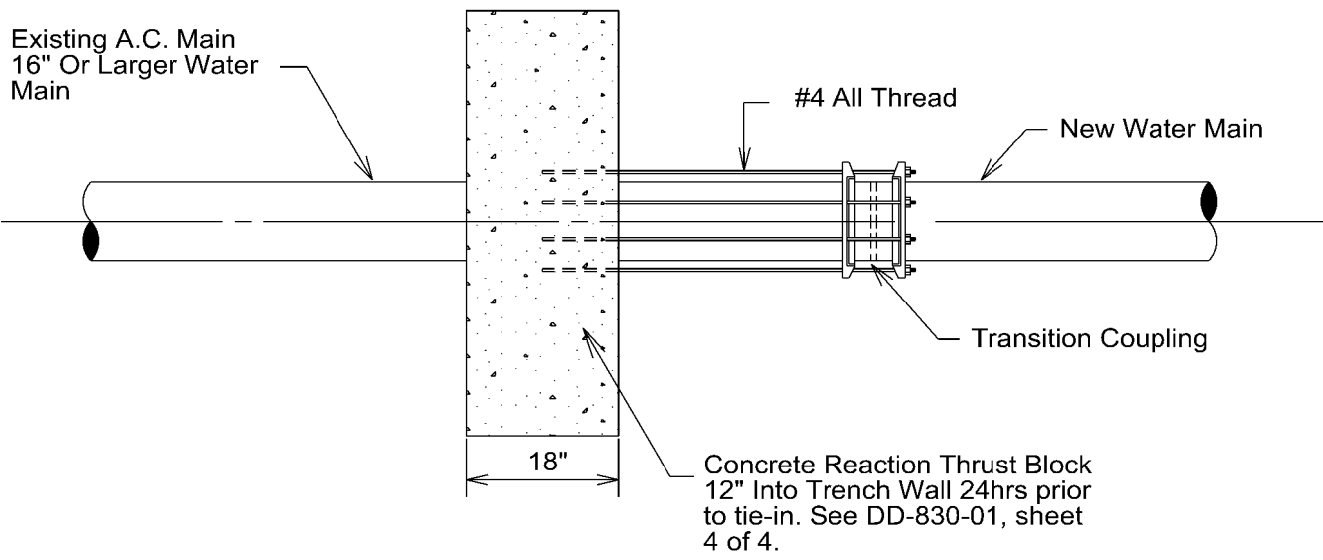
840.6 MEASUREMENT: Tie-ins will be measured by the unit of each such assembly of the various sizes of tie-ins installed at the proposed main to be accepted.

840.7 PAYMENT: Payment for "Tie-ins" will be made at the unit price bid for each tie-in of the various types and sizes completed from an existing main to the proposed main to be accepted.

1. Such payment shall include; shut-down and isolation of the existing main to which the new main is to be connected, cutting pipe for the connection, dewatering the excavation, assembly shall include excavation, selected embedment material, anti-corrosion embedment when specified, and the hauling and disposition of surplus excavated materials, compaction, compaction testing, blocking, transition coupling, all required restraints, accessories and appurtenances, hauling and disposition of surplus excavated material, including all existing pipe, fittings, appurtenances to be abandoned or removed, surface and pavement restoration, installation of all-weather surface, dewatering of the main, other required testing and customer notification of service interruption where required.
2. Connections between new and existing mains which are made with tapping sleeves and valves and by cutting-in tees will be processed as separate pay item.
3. Materials paid on site will be in accordance with Table 1 of Specification Item No. 100 Mobilization.

-End of Specification-

Existing A.C. Main
16" Or Larger Water
Main



PROPERTY OF
SAN ANTONIO WATER SYSTEM
SAN ANTONIO, TEXAS

CONCRETE THRUST BLOCK
FOR TIE-IN'S ON
16" OR LARGER WATER MAINS

APPROVED
MARCH 2008

REVISED
AUG 2019

DD-840-01

SHEET
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