

SECTION S907 - CONNECT NEW WATER MAIN TO EXISTING WATER MAIN

S907-1 DESCRIPTION

Work consists of the connection of a new water main to an existing water main as required in the Contract Documents and as directed by the Project Manager.

Work and materials are to be in conformance with requirements of Sections S900 General Water Provisions and S901 Water Main Pipe and Fittings.

S907-2 MATERIALS

All fittings and joint connection materials required to make the connection shall be as approved by the Project Manager prior to installation. Generally, the fittings and connection materials shall be the same material as the existing pipe: ductile iron fittings shall be required when connecting new ductile iron or PVC/PVCO pipe to existing cast or ductile iron pipe; and injection molded PVC fittings shall be required when connecting new PVC/PVCO pipe to existing PVC/PVCO pipe that is 12 inch diameter or less.

S907-3 CONSTRUCTION DETAILS

New water main shall be connected to the existing water main using approved and appropriate gaskets, materials and fittings. Fit between the new water main and the existing water main shall not exceed a gap of 1/8 inch.

The interior of all water main pipe and fittings not receiving 24 hour chlorine disinfection contact time must be spray or swab disinfected with a 1 to 5 percent solution of chlorine no more than 30 minutes prior to installation. The interior and exterior of cut ends of existing pipe shall also be cleaned and disinfected.

All fittings shall be solidly braced against the trench wall to prevent any deflection due to thrust pressure. Bracing shall be accomplished by the use of cast-in-place concrete thrust blocks and restrained joints.

All water pipe joints shall be made watertight. Prior to backfilling, the water main shall be filled with potable water and installation tested for leaks under line pressure in the presence of the Project Manager.

Prior to backfilling, uncoated tie rods, clamps and any components made of metal used for restrained joints are to receive hand brushed application of an approved bitumastic coating specifically manufactured for underground use or petrolatum wax tape coating system.

Non epoxy coated ductile iron fittings installed on PVC/PVCO water main pipe shall be coated with petrolatum wax tape coating system applied in conformance with manufacturer's instructions. One nine pound anode shall be attached to each ductile iron fitting.

When connecting a new ductile iron or PVC/PVCO water main to an existing cast or ductile iron water main, one 32 pound anode shall be thermite welded to the existing water main.

S907-4 METHOD OF MEASUREMENT

The quantity to be measured for payment shall be the number of connections actually made.

S907-5 BASIS OF PAYMENT

The unit price bid shall include the cost of: cutting and removing a piece of the existing water main; removing the existing plug; dewatering and cleaning existing water main; furnishing and using all temporary plugs; disinfectant to prevent contamination of the existing water main; connecting the new water main to the existing water main; furnishing and placing all pipe, pipe specials, gaskets, fittings, joints, hardware and thrust blocks; protective coating; restrained joints; plugging the abandoned water main with concrete; pavement saw cutting; leak testing; and furnishing all labor, material and equipment necessary to complete the work.

Excavation, rock excavation, furnishing and placing of magnesium anodes, bedding and select granular backfill, and surface restoration will be paid for under separate bid items.

Payment for installation of a tee or cross into existing water main shall be considered as one connection.

Payment will be made under:

ITEM NO.	ITEM	PAY UNIT
S907.01	Connect New Water Main to Existing Water Main	Each