

800 WATER SUPPLY & DISTRIBUTION

ITEM 805 - WATER SERVICE TAPS

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805.01 Description. The Contractor is to provide all work necessary to furnish and install *or transfer* water service taps complete and ready for use where shown on the plans or otherwise required and in accordance with these specifications. *Water "tap" and "service line" shall be defined as stated in Columbus City Code 1105.01.*

The *new* water service tap shall consist of all pipe, valves, fittings and appurtenances required from and including the water main connection to and including the control valve and box. Prior to constructing any *new* water service tap, a tap permit shall be obtained from the Division of Water.

The transferred water service tap shall consist of all pipe, valves, fittings and appurtenances required from and including the water main connection to and including the control valve and connection to the service line and the abandonment. The existing curb box shall be relocated to the new curb stop location. If the box is found damaged due to no negligence of the Contractor, the Contractor shall provide a new curb box to be installed and paid for separately under this item. Any box damaged by the Contractor shall be replaced at no additional expense to the City. Transferred water service taps shall include connection to existing service line and abandonment of the existing service tap.

805.02 Water Main Connection. For water service taps 2 inches (51 mm) and smaller the water main connection shall be made using a Mueller H-15000 or H-15008 or equal corporation stop. Corporation stops shall not be installed in the top *or bottom* 1/4 of the water main and shall be located no closer than 24 inches (0.6 m) to any other corporation stop, valve, bend, tee, or joint.

For water service taps 3 inches (76 mm) and larger the water main connection shall consist of a tee and gate valve if being installed with the water main or a tapping sleeve and valve if the tap is being installed on an existing water main. Valves shall be secured to the water main by anchoring tees, Clow F-1217 or equal; anchoring pipe of minimum length, Clow F-1216 or equal; or by other means approved by the Engineer.

Service clamps or tapping saddles shall be provided for all water service taps made under pressure into 3 inch (76 mm) and smaller water mains and for other main and tap sizes as follows:

Size and Type of Water Main	Maximum Water Service Tap Size Permitted Without Use of Saddle
4 Inches (102 mm) Gray or Ductile Cast Iron	3/4 Inch (19 mm)
6 Inches (152 mm) Gray Cast Iron	1 Inch (25 mm)
6 Inches (152 mm) Ductile Cast Iron	1 1/2 Inches (38 mm)
8 Inches (203 mm) Gray Cast Iron	1 1/2 Inches (38 mm)
8 Inches (203 mm) Ductile Cast Iron	2 Inches (51 mm)

Service clamps for 2 inch (51 mm) and smaller water lines shall be single strap design, Mueller H-10475 or equal.

Service clamps for 3 inch (76 mm) and larger water lines shall be double strap design, Mueller H-10519 or equal.

805.03 Pipe and Fittings. For water service taps 2 inches (51 mm) and smaller, all pipe from the water main connection to the control valve, *unless specifically called for on the plans*, shall be either Type K, soft temper copper tubing conforming in all respects to ASTM B 88 or Federal Specification WW-T-799 or ultra high molecular weight polyethylene tubing in accordance with ASTM D-2737, PE3408, D-1238, SDR-9. Fittings shall be high quality copper brass with approved compression type joints. In general there will be no fittings permitted between the water main connection and the control valve.

Pipe for water service taps 3 inches (76 mm) and larger shall be ductile iron up to the meter inlet and valve on the meter by-pass line. Ductile iron pipe and fittings shall conform to requirements of Item 801.

805.04 Control Valves and Boxes. Control valves for 2 inch (51 mm) and smaller water service taps shall be Mueller H-15204 or equal curb stops without drain. Boxes shall be Mueller H-10350 or equal, size 94E. The lid shall have the word "WATER" cast neatly and legibly on it and shall be held securely in place by a bronze or brass bolt. If a 2 inch (51 mm) curb stop is used the box shall be provided with an enlarged base section, Mueller H-0349 or equal. Where 2 inch (51 mm) and smaller curb stops are installed within traveled areas, the top section of the curb box shall include a Columbus standard ferrule box and cover.

Control valves for 3 inch (76 mm) and larger water service taps shall conform to requirements of Item 802. Valve boxes shall conform to Items 802 and 804. All water service taps 3 inch (76 mm) or larger which are totally or partially under existing or future pavement shall have a control valve and box provided in addition to the valve and box

installed with the water main connection. The control valve shall be installed *and restrained* at the location shown on the plans or approved by the Engineer.

For 3 inch (76 mm) and larger water service taps not under pavement or traveled portion of right-of-way the valve installed at the water main connection shall be used as the control valve and shall be provided with a valve box in conformance to Item 802.

805.05 Installation. 3 inch (76 mm) and larger taps shall be installed in accordance with Items 801, 802 and 803. Water service taps 2 inches (51 mm) and smaller may be installed by jacking or open cut methods, unless specifically called for on the plans. If the pipe is installed by jacking, the procedure used shall be such as not to bend or kink the service pipe, nor strain the pipe joints. The pipe from the water main connection to the control valve shall be installed to the grade and elevations shown on the plans, but in no case shall less than 3 feet 6 inches (1.0 m) of cover be provided. Bends in taps are to be minimized and must be approved by the Engineer prior to installation. Curb boxes shall be located 1 foot (0.3 m) from the edge of the proposed *or existing* sidewalk between the sidewalk and the curb, or *2 feet (0.6 m)* inside the right-of-way or easement line *when no sidewalk is present or proposed*.

Prior to backfilling, all water service taps shall be pressure tested from the water main connection to the control valve and all leaks shall be repaired. Water service taps 2 inches (51 mm) and smaller shall be tested at normal city water pressure, unless they are installed with the water line in which case they will be tested per section 801.12. Water service taps 3 inches (76 mm) and larger shall be tested at 150 psi (1034 kPa) in accordance with requirements of Item 801 up to the meter inlet and valve on the meter bypass line.

Transferred water tap shall then be connected to the existing service line and the existing water tap shall then be abandoned.

After a successful pressure test has been performed all excavations shall be backfilled in accordance with the requirements of Item 801.

Pavement replacement shall be in accordance with the requirements of *the appropriate bid item for pavement replacement*.

805.06 Method of Measurement. The individual water service tap components as specified herein may be measured separately as to size and use as a basis for payment or the entire water service tap as defined herein may be used as the basis of payment.

805.07 Basis of Payment. Payment shall be at the unit price shown in the proposal and shall be complete compensation for providing all work necessary to furnish and, install *or transfer*, the water service tap complete and ready for use or any component part there of.

Payment will be made at the contract price for:

Item	Unit	Description
805	Each	_____ Inch (mm) Corporation Stop
805	Each	_____ Inch (mm) Curb Stop
805	Each	Curb Box
805	Linear Foot (Meter)	_____ Inch (mm) Water Tubing
805	Each	_____ Inch (mm) Water Service Tap, Complete
805	<i>Each</i>	_____ <i>Inch (mm) Water Service Tap, Transferred</i>