ROGERS WATER UTILITIES ROGERS, ARKANSAS

INSTALLATION AND TESTING OF TAPPING SLEEVES AND VALVES AUGUST 2007

1. **SCOPE**

This specification governs the installation, testing and tapping of the tapping sleeve and valve for water mains, fire lines and sanitary sewer force mains. A tap for a tapping sleeve and valve shall only be made on pressurized mains (no dry taps will be permitted).

2. MATERIALS

- a. Tapping sleeves and valves shall conform to Section 02-07 Tapping Sleeves and Valves of the RWU specification.
- b. Concrete shall conform to Section 04-07 Concrete of the RWU specification.
- c. Thrust Blocking shall conform to Section 07-06 Thrust Blocking of the RWU specification.

3. GENERAL REQUIREMENTS

- a. Tapping sleeves (outside sleeve edge) shall not be installed within 2 feet of a pipe joint/fitting of an existing main, tapping sleeve or tapped corp.
- b. The Contractor shall make the excavation of sufficient size to allow the tapping machine and crew room to perform the tap.
- c. Before assembly of the tapping sleeve and valve, the Contractor shall clean the existing pipe barrel thoroughly to provide a smooth, hard surface for the gasket of the tapping sleeve. The Contractor shall verify the pipe type and outside diameter dimension.
- d. Tapping sleeve and valve shall be installed in accordance with the manufacturer instruction. The face of the outlet flange shall be plumb. The tapping valve shall be bolted securely to the tapping sleeve outlet flange.
- e. The use of a shell type cutter with pilot drill shall be required. Whenever tapping a potable water main, the shell cutter shall be disinfected with straight bleach or

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super-chlorinated solution prior to start of tapping operation. The shell cutter shall be of the size required to cut full opening.

- f. The Contractor shall furnish all equipment and labor required, including necessary piping/hoses, injection booster pump, test pressure gauge, ductile iron MJ plug and a water source for testing the tapping sleeve and valve. The test pressure gauge shall have a minimum range of 0-300 psi and the pressure gauge figure intervals shall be a maximum of 5 psi increments.
- g. The tapping of the water mains and fire lines shall be performed by RWU crews for 4 inch, 6 inch, 8 inch and 12 inch pipe at the fee charge established for this service. Independent tapping service is required for water mains and fire lines sizes greater than 12 Inch diameter and all sanitary sewer force mains. The cost of independent tapping service will at the expense of the Contractor.
- h. Only qualified operators shall operate the tapping machine. The "coupon" shall be withdrawn and be given to the Engineer and RWU personnel for inspection.
- i. Tapping sleeve with a run size 4 inch or larger shall be adequately horizontal concrete thrust block per the RWU specification after passing the hydrostatic and leakage test.

3. HYDROSTATIC AND LEAKAGE PROCEDURES

- a. After installing the tapping sleeve and valve, and prior to tapping of a pressurized main/line, a hydrostatic and leakage test shall be performed (tapping valve in closed and open position). The test will be conducted by introducing water through the test port on the tapping sleeve with the tapping valve in the closed position. The tapping sleeve with valve in the closed position shall be capable of maintaining a test pressure of 200 psi for 15 minutes duration, with no sign of visible leaks. The Contractor shall then install a MJ plug on the tapping valve and conduct the specified test with the valve in the open position. The tapping sleeve with valve in the open position shall be capable of maintaining a test pressure of 200 psi for 15 minutes duration, with no sign of visible leaks.
- b. All leaks shall be repaired by removing and/or replacing defective items with items free of defects, after which the tapping sleeve and valve shall be re-tested. Such repair and re-testing shall be preformed until the installation passes the specified test.
- c. The test plug shall be inserted into the test port on the sleeve after completion of the test.

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4. ACCEPTANCE

The tapping sleeve and valve shall have passed the hydrostatic and leakage test if the tapping sleeve and valve (tapping valve in closed and open position) is capable of maintaining a test pressure of 200 psi for a 15 minute duration, with no visible leaks.