



WOONSOCKET WATER DIVISION MATERIAL SPECIFICATIONS

PIPE: Ductile iron per latest revision of AWWA C-15165, centrifugally cast, Class 52 thicknesses. Bell and spigot, using single elongated grooved rubber gasket similar and approved – equal to the “Tyton” joint as manufactured by U.S. Pipe and Foundry Co. of R. D. Wood Co. Cement-lined per AWWA D-10464, except lining shall be not less than 1/8-inch thick. Factory coated exterior w/coal-tar base coating.

FITTINGS & TAPPING TEES: Ductile Iron or Cast Iron per latest revision of ANSI, A21-10, Class 250. Mechanical joints per latest revision of AWWA C-11164. Interior cement-mortar lined per latest revision of AWWA, C-10464, except thickness shall be not less than 1/8-inch. Exterior factory coating w/approved bituminous coating. **TAPPING TEE** shall be of cast iron, model H-615 or H-616, manufactured by Mueller Company or equal by others. **No Stainless Steel Tapping Tees allowed.**

GATE & TAPPING VALVES: Valves up to 12-inch size shall be of the resilient wedge type. Such valves shall be manufactured in accordance with the AWWA Standard C-515. Valves shall be designed for no less than 200psi working water pressure. Valves shall be mechanical joint type and shall have clear waterway equal to the full nominal diameter of the valve. Valves shall be resilient type with non-rising stems, opening by turning **right** and provided with 2-inch square operating nuts.

Each valve shall have “OPEN RIGHT,” maker’s name, pressure rating and year in which manufactured cast on the body. Prior to shipment from the factory each valve shall be tested by hydrostatic pressure of 400 psi. Valves shall be Kennedy 4571, Mueller 2360 equal.

HYDRANTS: Breakaway model manufactured by Kennedy, Mueller, Darling or U.S. Pipe with 5 1/4-inch valve opening with a 4 1/2-inch pumper nozzle and two 2 1/2-inch hose nozzles. Operating nut **opens right**.

VALVE BOXES: “Buffalo” type as manufactured by Buffalo Pipe & Foundry or approved equal, suitable for the size valve on which they are used. The lower section shall be at least 5 ¼-inch inside diameter, belled or domed at the bottom to fit over work. The upper section shall fit over the lower section and shall be flanged at its base to provide proper bearing. Covers shall be at least 6-inches in diameter, shall fit flush with the top and shall have the words “WATER” cast thereon in raised letters. The boxes shall be coated, inside and outside, with coal-tar pitch enamel or other approved coating.

CURB BOXES: Curb boxes shall be provided for each curb stop. Curb Boxes shall be heavy pattern cast-iron, cast in two telescoping sections, of sliding construction and of such lengths as will provide the required cover, without full extension of either section. The lower section shall be at least 2 ½-inches inside diameter, belled or domed at the bottom to fit over the curb stop. The upper section with lid flush with the top shall fit over the lower section. Curb boxes shall be of good quality cast iron, free from all defects in material and workmanship and shall be coated, inside and outside, with coal-tar pitch enamel or other approved coating. Curb boxes shall be “Buffalo” type suitable for the size valve on which they are used and shall be manufactured by Buffalo Pipe & Foundry or an approved equal. Each service box shall be complete with a top section and cover, a bottom section, rod and sand catcher. The top section shall be 24-inches long, the bottom section shall be 48-inches long and the rod shall be 48-inches long.

COPPER TUBING: Type K, soft, of domestic manufacture conforming to WW-T-799, ASTM B-88 and AWWA-75-CR.

CORPORATIONS & CURB-STOPPS: Corporations shall be Figure 438 & A, & curb-stops shall be figure 415, as manufactured by Red-Hed Manufacturing Company, Lincoln, RI. And shall open right.

HYDROSTATIC TESTING & DISINFECTING: All pipe runs 3-inch size and larger shall be hydrostatic tested and disinfected in accordance with the latest revision of ANSI/AWWA, C-600 and C-601 respectively.

Hydrostatic testing and disinfecting shall be done by a certified independent contractor approved by the Water Division, other than the pipe-installing contractor. Bacteria testing shall be performed at the Woonsocket Water Division laboratory.

METERS AND BACKFLOW PREVENTERS

Currently only Elster -AMCO Meters C-700

and C3000 Compound with a cubic-foot, encoder type register, an Itron radio read ERT and Woonsocket ROCL are used on the water system in Woonsocket and North Smithfield. Standard meter size is 5/8-inch unless otherwise agreed to by the Woonsocket Water Division.

Backflow Preventers shall be Watts, Reduced Pressure Zone (RPZ) type or equal by Febco or Wilkins. Ames backflow devices including the Ames models now sold by Watts are not permitted.

DEDICATED FIRE SUPPLY

Backflow Preventer Requirements for Fire Supply Service,
2½-Inch Size and Larger

WATTS Series 909, Reduced Pressure Zone Detector Assembly (RPDA) or Equal by Febco or Wilkins.

The detector branch shall be ¾-inch size equipped as follows:

1. A ⅝-inch size positive displacement meter conforming to ELSTER - AMCO C-700 with a cubic-foot, encoder type register, an Itron radio read ERT and Woonsocket ROCL.
2. A ¾-inch size Reduced Pressure Zone type backflow preventer conforming to WATTS Series 909 or 009 (RPZ) or equal by Febco or Wilkins.
3. A ¾-inch size ball or gate valve installed before the meter, between the meter and the backflow preventer and after the backflow preventer.

When installed in a building, the backflow preventer shall be provided with an air gap fitting to guide the discharge water of backflow conditions into an appropriate drain line to the outside atmosphere. The bottom end of the air gap fitting shall be not less than one-foot above the entry end of the drain line.

When installed in an outside enclosure, the air gap fitting shall not be required. The backflow preventer shall be installed not less than one-foot above the concrete pad of the enclosure.