



KENT COUNTY WATER AUTHORITY

ERRATUM to Rules and Regulations of the Kent County Water Authority

Section 4.9.1.1 Resilient Seat Gate 4 inch to 12 inch: Replace with the attached.

Section 4.9.1.3 Tapping Sleeves and Valves: Replace with the attached.

Section 4.10 Hydrants: Replace with the attached.

Approved KCWA February 15, 2007

4.9.1.1 Resilient Seat Gate 4 inch to 12 inch:

Type:	Buried Service non-rising stem. Above grade service or pits OS & Y with hand wheel or non-rising stem with hand wheel.
Working Pressure:	250 PSI.
Opening:	Left or right depending on system location.
Stem:	420 Stainless steel or equal with minimum tensile strength of 80,000 PSI tensile strength and a yield strength of 32,000 PSI.
Fasteners:	Stainless steel, type 304 for entire valve.
Coatings:	Internal & exterior to be coated with fuse bonded holiday free epoxy coating minimum 8 mils nominal thickness meeting or exceeding AWWA C550.
Wedges:	Fully rubber encapsulated cast iron, ductile iron or bronze gate meeting AWWA C509.
Operating Nut:	2 inch square operating nut with hexagon stainless steel bolt fastener.
Stem Seal:	Minimum two O-ring seals.
Connection:	Mechanical Joint.

4.9.1.3 Tapping Sleeves and Valves:

Valves shall be full body and full port tapping type meeting the requirements paragraph 4.9.1.1 above. Sleeves shall be full port ductile iron or grade 18-8 type 304 stainless steel. Ductile iron sleeves shall be of the same manufacturer as the valve or equal and bituminous or epoxy coated. All sleeves shall be manufactured to meet or exceed the design and operating characteristics of one of the following devices:

Type:	Resilient seat gate valves designed specifically for tapping.
Seal:	Stainless steel sleeves shall use grid pattern virgin rubber ASTM 2000, full 360-degree pipe coverage.

Ductile iron sleeves shall use mechanical joint with rubber seals.

Maximum Working Pressure:	4 inch-12 inch 250 PSE, 16 inch-24 inch 200 PSI.
Fastener:	Grade 18-8 Type 304 stainless steel.

4.10 HYDRANTS:

To maintain system wide standardization, hydrants shall be dry barrel type with 5¼ inch valve. Hydrants shall conform to the “Standard Specifications for Fire Hydrants for Ordinary Water Works Service,” AWWA C-502, and shall in addition meet the specific requirements of the Kent County Water Authority as listed. Hydrants shall be UL rated and suitable for 250-psi working pressure and service installation in a trench that will provide various minimum cover. Hydrants shall be according to manufacturer’s standard pattern unless noted otherwise and of standard size, and shall be equipped with 6 inch mechanical joint connection for 6” ductile iron pipe, one 4 ½ inch steamer nozzle and two 2 ½ inch hose nozzles, brass or brass sleeved drains, National Standard Thread, hydrant inlet connections. Hydrants shall be of the full compression design, opening against and closing with the water pressure. The hydrants shall be designed to permit rotary movement of the upper barrel any number of degrees required to effect proper alignment without shutting down service or removing flange bolts and nuts. Hydrant must open turning operating nut to left (counterclockwise) and must be marked with an arrow and word “open” to indicate the direction to turn stem to open. All fasteners used shall be stainless steel.

Boot coatings to be fuse bonded epoxy or thermal set epoxy for interior and exterior-holiday free with minimum thickness 8 mils meeting or exceeding AWWA C550. Epoxy coating must be undamaged with no chips or abrasions. Lower barrel shall be bituminous coated or epoxy coated or equal. Field touch-up of epoxy interior coating is not allowed. Field touch-up of exterior surfaces shall be in accordance with manufactures recoating specifications only. Contractors shall use special handling and installation precautions with the use of epoxy coated appurtenances as necessary to ensure that no coating system damage occurs. All epoxy appurtenances found mishandled at delivery or during installation shall be rejected and removed from the job site. Above grade exposed hydrant components shall be coated with one coat zinc rich urethane primer or epoxy primer @ 2.5-3.5 mils dry film thickness. Hydrant barrel, breakaway flange, shall be coated with phenolic urethane enamel or urethane enamel gloss silver, two coats @ 4.0 mils dry film thickness each coat. Topcoat shall produce a consistent and holiday free color coating. Caps and Bonnet shall receive two coats of gloss safety red, phenolic urethane enamel or urethane enamel 4.0 mils dry film thickness each coat. Color coats shall produce a consistent and holiday free color coating. Surface shall be sand blasted to SSPC/SP-6 prior to coatings. All hydrants shall be shipped without chains. Manufacture shall provide a ten-year warranty on all parts and workmanship. Hydrant repair kits shall be original manufacture specifically

designed for the hydrant. All hydrants shall also be manufactured to meet or exceed additional design and operating characteristics listed below:

Type:	5 ¼ inch valve opening/3 port style, dry barrel.
Opening:	Open left.
Depth of Bury:	5'-0" minimum from bury line to top flange of hydrant boot.
Ports:	Two 2 ½ inch bronze hose ports 180° apart NST thread. One 4 ½ inch bronze pumper/steamer 90° from each hose port, NST thread.
Breakaway:	All hydrants to have traffic breakaway flange.
Drain Ways:	Sliding drain seal type or compression design. Drain channel shall be 360 degrees and contain a minimum of two bronze or brass sleeved outlet ports.
Coatings:	Prior to priming, sand blast hydrant to SSPC/SP-6 primed with zinc rich urethane compatible coating. Top coat with two coats each red and silver conforming to KCWA standard color, silver barrel and red cap and bonnet. Boot coatings to be fuse bonded epoxy or thermal set epoxy for interior and exterior – holiday free with minimum thickness 8 mils meeting or exceeding AWWA C550. Exterior lower barrel to be bituminous coated or epoxy coated or equal.
Stem:	Stainless steel upper and lower stem. All wetted parts such as springs, pins and fasteners, shall be stainless steel or other compatible lead free non corrosive materials.
Main Valve:	Ductile iron or cast iron core fully encapsulated in rubber or multiple pieces with epoxy lead free brass or EPDM rubber segments. Seat may be either bronze or stainless steel.

Weather shield
and cap:

Ductile Iron or cast iron.

Chains:

No chains to be supplied.