

## PART 203 – DUCTILE IRON PIPE, DUCTILE AND CAST IRON FITTINGS, AND VALVES

### 203.1 PIPE AND FITTINGS

203.1.1 Where ductile iron pipe (DIP) 3 inches in diameter and larger is specified or required, it shall conform to, and be tested in accordance with, the current edition of ANSI/AWWA C151/A21.51, Ductile-Iron Pipe, Centrifugally Cast.

203.1.2 Length of joints shall be either 18 feet or 20 feet. The minimum standard thickness class of each size pipe shall be as follows:

| <u>Pipe Size</u>   | <u>Thickness Class</u> |
|--------------------|------------------------|
| 4-inch to 8-inch   | 51                     |
| 10-inch and larger | 50                     |

203.1.3 For 16-inch and larger Water Ductile Iron Pipe, all bell and spigot joints shall be electrically bonded, using a #4 AWG bare copper wire of adequate length to braze, using a #15 cadweld cartridge, the copper wire to the bare metal at the bell and spigot. Cost shall be included in the unit price bid per lineal foot of Ductile Iron Pipe.

203.1.4 For 16-inch and larger Water Ductile Iron Pipe, junction box test stations shall be furnished and installed, EXCEPT, no magnesium anode banks shall be furnished or installed. Junction box test stations shall be installed in accordance with the stationing shown on the Schedule of Anode Spacing. Cost shall be included in the unit price bid per lineal foot of Ductile Iron Pipe.

203.1.5 Fittings for ductile iron pipe shall be cast or ductile iron. Cast iron and ductile iron fittings shall conform to the current edition of ANSI/AWWA C110, Ductile-Iron and Gray-Iron Fittings; or the current edition of ANSI/AWWA C153, Ductile-Iron Compact Fittings. The length of all solid sleeves (both AWWA C110 and C153) shall be the longest length listed in the AWWA C110 specification (12-inch length for 3-inch through 12-inch sleeves, 15-inch length for 14-inch through 24-inch sleeves, and 24-inch length for 30-inch through 48-inch sleeves).

203.1.6 DUCTILE IRON PIPE FOR GRAVITY SANITARY SEWER USE SHALL BE BY THE DIRECTOR OF WATER AND SEWER APPROVAL ONLY. Interior of all sanitary sewer ductile iron pipe shall be lined with 40 mils of ceramic epoxy ("Protecto 401", or equal).

#### 203.1.6.1 Condition of Ductile Iron Prior to Surface Preparation:

All ductile pipe and fittings shall be delivered to the application facility without asphalt, cement lining, or any other lining on the interior surface. Because removal of old linings may not be possible, the intent of this specification is that the entire interior of the ductile iron pipe and fittings shall not have been lined with any substance prior to the application of the specified lining material and no coating shall have been applied to the first 6 inches of the exterior of the spigot ends.