

**SECTION 15300
FIRE HYDRANTS**

PART 1 GENERAL

1.01 DESCRIPTION

This section includes the materials for and installation of fire hydrant assemblies.

1.02 REFERENCE STANDARDS

The publications listed below form part of this specification to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said standards unless otherwise called for.

Hydrants AWWA C503- Wet-Barrel
Fire Hydrants

AWWA C550 - Protective Epoxy Interior Coatings for Valves and Hydrants

1.03 RELATED WORK SPECIFIED ELSEWHERE

Standard Drawings W-2, W-12

Standard Specifications 02223, 03000, 09900, 15000, 15041, 15044, 15056, 15061, 15064, and 15100

1.04 SYSTEM DESCRIPTION

- A. Hydrant outlet sizes and configuration shall be as shown on the Approved Plans or as directed by the fire department of jurisdiction.
- B. Hydrants shall generally have the following number and size of outlets as directed by the fire department of jurisdiction:
 - 1. Residential: One (2½") outlet and one (4") outlet
 - 2. Commercial: Two (2½") outlets and one (4") outlet.
 - 3. Industrial: One (2½") outlet and two (4") outlets.

1.05 SERVICE APPLICATION

- A. Fire hydrants shall be installed on potable water mains only. Fire hydrants shall not be installed on recycled water mains.
- B. Wet-barrel hydrants shall generally be used for pressures up to (200 PSI). System pressures up to and including (200 PSI) require standard wet-barrel hydrants, and pressures (200 PSI) and above require high-pressure wet-barrel

hydrants in accordance with the Approved Materials List.

1.06 DELIVERY, STORAGE AND HANDLING

Fire hydrants shall be delivered and stored in accordance with AWWA C210, AWWA C213, and AWWA C550. The port openings shall be covered with plastic, cardboard or wood while in transit and during storage in the field. These covers shall remain in place until the valve is ready to be installed. Fire hydrants shall not be stored in contact with bare ground. Fire hydrants shall not be stacked.

1.07 WARNING/IDENTIFICATION TAPE

Warning/Identification tape shall be installed for fire hydrant assemblies in accordance with Section 15000.

PART 2 MATERIALS

2.01 HYDRANTS

- A. Fire hydrants and appurtenances shall be selected from the Approved Materials List.
- B. Wet-barrel fire hydrants shall comply with AWWA C503 and these specifications unless otherwise indicated on the Approved Drawings.
- C. The interior of ductile-iron hydrants shall be fusion-epoxy lined per AWWA C550.
- D. All outlets shall be provided with National Standard Fire-Hose Threads. Outlets shall be equipped with plastic, brass or ductile iron caps with chains.
- E. Wet-barrel fire hydrant flanges and appurtenant bury ells and spools shall incorporate a 8 hole bolt pattern.
- F. Fire hydrant break-off check valves shall be in accordance with the Standard Drawings and Approved Materials List.
- G. Fire hydrant make up spools shall be solid one piece ductile iron with no break off groove.

2.02 BOLTS AND NUTS

- A. Fire Hydrants shall be installed with bolts and nuts in accordance with the Standard Drawings and selected from the Approved Materials List.
- B. Bolts and nuts shall be zinc-plated A307 carbon steel in accordance with Section 15000.

2.03 CONCRETE

Concrete used for splash pads, thrust or anchor blocks shall be in accordance with Section 03000.

2.04 WARNING/IDENTIFICATION TAPE

Warning/Identification tape materials shall be in accordance with Section 15000 and the Approved Materials List.

2.05 FIELD PAINTING AND COATING

Field painting and coating materials shall be in accordance with Section 09900 in accordance with the Approved Materials List.

PART 3 EXECUTION

3.01 GENERAL

- A. Fire hydrant assemblies shall be installed at locations shown on the Approved Plans or as directed by the fire department of jurisdiction in accordance with the Standard Drawings.
- B. The location and port orientation of the Fire Hydrant shall be in accordance with the Standard Drawings.
- C. Fire hydrant flange bolts shall be set with nuts on bottom. Torque nuts uniformly and progressively in accordance with the manufacturer's recommendations.. Break away bolts are not permitted for use.
- D. Depending on location, fire hydrant assemblies may require concrete retaining walls. When required by the District Engineer, or when shown on the Approved Plans, retaining walls shall be installed in accordance with the Standard Drawings.

3.02 CONCRETE

Concrete thrust and anchor blocks shall be installed in accordance with Section 03000 and the Standard Drawings. Refer to Section 03000 for the minimum concrete curing time required.

3.03 WARNING/IDENTIFICATION TAPE

Warning/Identification tape shall be installed in accordance with Section 15000 and the Standard Drawings.

3.04 DISINFECTION OF FIRE HYDRANT

The fire hydrant assembly shall be disinfected in accordance with Section 15041, as part of the process of disinfecting the main pipeline. The assembly valves shall be operated and the assembly flushed to completely disinfect all internal parts.

3.05 HYDROSTATIC TESTING

Fire hydrant assemblies shall be hydrostatically tested in accordance with Section 15044 in conjunction with the pipeline to which it is connected.

3.06 FIELD PAINTING AND COATING

The fire hydrant exterior shall be field painted in accordance with Section 09900.

END OF SECTION 15300