

SECTION 33 12 33 WATER METER

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Water meters, service connections, materials.
- B. Related work includes but is not limited to,
 - 1. Excavation, Section 31 23 16.
 - 2. Trench backfill, Section 33 05 20 .

1.2 REFERENCES

- A. AWWA C704: AWWA Standard for Cold-Water Meters -Propeller Type for Main Line Applications.
- B. AWWA C800: AWWA Standard for Underground Service Line Valves and Fittings.

1.3 SUBMITTALS

- A. Manufacturer's test records on the range and accuracy of the meter being furnished.
- B. Equipment material diagram and parts schematic.

PART 2 PRODUCTS

2.1 METERS FOR SYSTEM PIPING

- A. Materials and Construction: AWWA C704
 - 1. Cast iron bodies with 175 psi working pressure flanged connections.
 - 2. Built-in straightening vanes.
 - 3. Working pressure 150 psi.
 - 4. Polyethylene plastic propeller.
 - 5. Stainless steel shaft with stainless steel ball bearings, lubricated by means of a single pressure fitting.
- B. Accuracy: Plus or minus 2 percent of scale for velocities over 1 foot per second.
- C. Totalizer: Six digits reading in units indicated.

2.2 METERS FOR SERVICE PIPING

- A. Provided by OWNER unless indicated otherwise.

2.3 SERVICE LINE, VALVES, AND FITTINGS

- A. Service Pipe: Provide copper pipe, Section 33 05 03 or polyethylene pipe, (Section 33 05 06). The service pipe between the main and the meter and to a point not less than 1 foot from the public way side of the property line cannot exceed the meter size.
- B. Service Valves and Fittings: AWWA C800.
- C. Meter Setters: Brass, with angle fittings, saddle nuts and gaskets.
- D. Corporation Stops and Angle Valves: Invert key design.
- E. Bypasses: Not allowed on any service installation without approval of ENGINEER.

2.4 METER BOXES

- A. Meters to 1" Service: Plastic or asphalt-dipped corrugated metal. Fiber meter boxes are not acceptable. Provide a meter box with frame and cover of sufficient strength to withstand loadings in vehicular traffic areas without breaking.
- B. Meters 1-1/2" and Larger: Reinforced concrete with a minimum clearance of 12" from each side of meter plumbing.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install meter box, meter setters, valves, etc. at indicated locations. If not indicated, install in street right-of-way parking strip or at a location approved by ENGINEER.
- B. Install meter setters level and horizontal. Provide suitable pipe lengths to prevent stress.
- C. Do not operate any of the utility agency's main line valves. Contact agency if valves are to be operated. If required by water utility agency notify affected water users, Section 01 31 13.
- D. OWNER Supplied Meters: Installed by CONTRACTOR unless indicated otherwise.

END OF SECTION