

## SECTION 02510 - WATER DISTRIBUTION

## A. SUMMARY

1. Combined potable-water and fire-protection water service outside the building.
2. Piping for potable-water service outside the building.
3. Piping for fire-protection water service outside the building.
4. Tapping of Utility Company Water Main: Contractor.
5. [**Tunneling**] [**Jacking**] under streets or other obstructions that cannot be disturbed.

## B. SYSTEM PERFORMANCE

1. Combined Potable-Water and Fire-Protection Water-Service Minimum Working-Pressure Rating: 160 psig (1100 kPa).
2. Potable-Water-Service Minimum Working-Pressure Rating: 160 psig (1100 kPa).
3. Fire-Protection Water-Service Minimum Working-Pressure Ratings: [**200 psig (1380 kPa)**] [**250 psig (1725 kPa)**].

## C. SUBMITTALS

1. Coordination Drawings.
2. Site Survey to Locate Existing Utilities: Contractor provided.

## D. MATERIALS

1. Pipe and Fittings:
  - a. Copper tube, Type [**K**] [**L**] and fittings with [**soldered**] [**brazed**] joints.
  - b. Polyethylene plastic pipe and plastic fittings with [**clamped**] [**heat-fusion**] joints.
  - c. Crosslinked polyethylene plastic pipe and plastic fittings with mechanical joints.
  - d. Schedule [**40**] [**80**] PVC plastic pipe and fittings with solvent-cemented joints.
  - e. Ductile-iron pipe and [**push-on**] [**mechanical**] fittings with [**gasketed**] [**mechanical**] joints.
  - f. Class [**150**] [**200**] polyethylene plastic fire-service pipe and plastic fittings with heat-fusion joints.
  - g. Class [**150**] [**200**] PVC plastic fire-service pipe and [**plastic**] [**ductile-iron**] fittings with gasketed joints.

## E. COMPONENTS

1. Piping Specialties:
  - a. Flexible connectors.
  - b. Dielectric Fittings: **[Unions]** **[Flanges]** **[Couplings]** **[Nipples]**.
2. Polyethylene encasement for ductile-iron piping.
3. Valves:
  - a. **[AWWA]** **[UL/FM]** gate valves, nonrising stem.
  - b. **[AWWA]** **[UL/FM]** gate valves, rising stem, OS&Y.
  - c. Valve boxes.
  - d. Indicator posts.
  - e. Curb stops.
  - f. Service boxes.
  - g. Manifold for multiple connections to water main.
  - h. AWWA ball valves.
  - i. **[AWWA]** **[UL]** butterfly valves.
  - j. **[AWWA]** **[UL]** check valves.
4. Specialty Valves: **[Pressure regulating]** **[Flow regulating]** **[Air release]** **[Air/vacuum]** **[Combination air]**.
5. Water Meters:
  - a. **[Furnished by utility company.]**
  - b. Type: **[Displacement, bronze case]** **[Turbine]** **[Compound]** **[Detector]**.
  - c. Remote Registration System: **[Direct-reading]** **[Encoder]** type.
6. Water-Meter Boxes: **[Single]** **[Double]** cover.
7. Precast, reinforced-concrete pits.
8. Protective enclosures for aboveground water piping.
9. Freestanding Fire Hydrants: **[AWWA]** **[UL]** **[Dry barrel]** **[Wet barrel]**.
10. Wall Fire Hydrants: **[4-inch NPS (DN100)]** **[6-inch NPS (DN150)]** inlet.
11. Flushing Hydrants: **[Post type]** **[Ground type]** **[Sampling station]**.
12. Freestanding fire department connections.
13. Detector check valves.
14. Backflow Preventers: **[Hose-connection vacuum breaker]** **[Reduced-pressure-principle backflow preventer]** **[Double-check backflow prevention assembly]** **[Double-check-valve]**

**assembly] [Antisiphon, pressure-type vacuum breaker] [Reduced-pressure detector assembly backflow preventer] [Double-check detector assembly backflow preventer].**

15. Yard Hydrants: **[Sanitary, post type] [Post type].**

16. Alarm Devices: **[Water-flow indicators] [Supervisory switches] [Pressure switches].**

17. **[Detectable]** plastic underground warning tape.

END OF SECTION 02510