

## 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