

## **111 PLAN SUBMITTALS AND PROCEDURES**

### **111.1 PLATS**

111.1.1 Following are the procedures for a developer or other individuals who desire to connect into a water main owned by the Water Utility with a main that will be dedicated to the Water Utility:

- 1) Submit a plat plan (24" x 36") to the Water Utility indicating the following information:
  - a) Existing Water Utility owned main, hydrant(s), and valve(s) with size and relative location with respect to right-of-way lines and existing curb lines.
  - b) Location of the proposed tap(s), hydrant(s), valve(s), and all other appurtenances and routing of proposed main within public right-of-way.
  - c) Location of existing and proposed streets and lots to be served by main.
  - d) Legal description of property to be served.
  - e) Any dimensions required for clarity.
  - f) Include statement that all main work to be completed according to the Standard Specifications.
- 2) Pay required Main Sharing Costs (see section 110.4).

111.1.2 One (1) 'as-built record drawing' of the main is to be submitted to the Water Utility within 30 days after the completion of the water main installation, unless otherwise approved by the Distribution Manager. Prior to the acceptance of the public improvements, as-built record drawings (horizontal and vertical as-built data in state plane coordinates and NAD 1983 State Plane Iowa South datum) for all water piping and associated appurtenances will be provided. Submittals are preferred electronically but a pdf format is acceptable.

### **111.2 SITE PLANS**

111.2.1 Following are the procedures for a developer or other individuals who desire to connect into a water main owned by the Water Utility with a service main:

- 1) Submit a site plan to the Water Utility indicating the following information:
  - a) Existing Water Utility owned main, hydrant(s), and valve(s) with size and relative location with respect to right-of-way lines and existing curb lines.

- b) Location of the proposed tap, proposed valve location(s) and routing of proposed service main within public right-of-way and on private property. In general, valves located on private property for the individual fire and domestic service(s) shall be located in paved, non-parking areas such as driveways, drive areas, sidewalks, etc. Valves shall be located in such a manner as to permit operation by the Water Utility 24 hours a day. The service mains shall be routed accordingly.
  - c) Location of proposed or existing building(s) on property to be served by service main.
  - d) Legal description of property to be served.
  - e) Proposed paved areas for parking lots, driveways and sidewalks.
  - f) Any dimensions required for clarity.
  - g) Show all hydrants, valves and fittings.
  - h) Include statement that all service main work to be completed according to the Standard Specifications.
- 2) Submit total fire flow requirements (if applicable for the site).
  - 3) Submit load profile for any domestic, irrigation or process service line 2" or larger in diameter (see section 103.2.1.4).
  - 4) Pay required Connection Fees (see Appendix A - Fee Schedule).
  - 5) Submit mechanical drawing showing the location and type of backflow prevention device, if required.

111.2.2 Once items 111.2.1-5 above are completed to the satisfaction of the Water Utility, the Agreement for Water Service is to be signed.

111.2.3 One (1) "as-built record drawing" of the service main is to be submitted to the Water Utility within 30 days after the completion of the water main installation of its construction and before the meter is set, unless otherwise approved by the Distribution Manager. Prior to the acceptance of the public improvements, as-built record drawings (horizontal and vertical as-built data in state plane coordinates and NAD 1983 State Plane Iowa South datum) for all water piping and associated appurtenances will be provided. Submittals are preferred electronically but a pdf format is acceptable.

### **111.3 MATERIALS FOR SERVICE MAINS**

All service main materials shall comply with the Urbandale Water Utility Standard Specifications and the City of Urbandale Plumbing Code.

#### **111.4 PRESSURE TESTING**

- 111.4.1 All service mains and appurtenances shall be tested for leakage in compliance with the Standard Specifications.
- 111.4.2 The plumbing contractor shall notify the Water Utility when the service main is installed and ready to be filled for pressure testing and disinfection.
- 111.4.3 The pressure test, when applied to service mains shall be witnessed by Water Utility personnel or a designated representative. Upon completion of the test, a certificate of compliance shall be completed stating the test pressure, duration of the test, total leakage, allowable leakage and that the test met all requirements. Contact the Water Utility 48 hours prior to starting a test.

#### **111.5 DISINFECTION**

- 111.5.1 Following satisfactory pressure tests, in accordance with the current revision of AWWA Standard C651, all service mains shall be disinfected, sampled and tested as follows:
  - 1) The form of chlorine used and procedures for disinfection shall be as outlined in AWWA Standard C651. A minimum free residual chlorine concentration of 10 mg/l at the end of the test period.
  - 2) After the 24-hour disinfection period, the service main shall be flushed to remove the chlorine. The Water Utility shall be notified when the flushing of the water main is scheduled.
  - 3) Water used for flushing and sampling shall be provided by the Water Utility for the first test of the main. If the first test samples do not pass laboratory tests, any labor and equipment costs incurred by the Water Utility for further disinfection, flushing and sampling shall be billed to the contractor (see Appendix A – Fee Schedule A).
  - 4) After final flushing, two consecutive sets of acceptable samples, taken at least 24 hours apart, shall be collected from the new main. At least one set of samples shall be collected from every 1,000 feet of the new water main, plus one set from the end of the line and at least one set from each branch. All samples shall be tested for bacteriological (chemical and physical) quality in accordance with Standard Methods for the Examination of Water and Wastewater; and shall show the absence of coliform organisms; and, if required, the presence of a chlorine residual.
  - 5) All samples shall be taken within 21 days of the water main installation.

#### **111.6 TRACING WIRE TEST**

- 111.6.1 The tracing wire system shall be tested to ensure continuity. Tracing wire test shall be scheduled with the Water Utility.