



CITY OF MCKINNEY
ENGINEERING DEPARTMENT
CONSTRUCTION INSPECTIONS
**CITY WATER SYSTEM
REQUIREMENTS**

All new water lines connecting to the City of McKinney water system shall be debris flushed, disinfected, pass bacteriological sampling and testing, and be acceptable and approved by the City of McKinney. The flushing and disinfection process shall be per NCTCOG 506.7.5 Disinfection and AWWA C651 Disinfecting Water Mains or latest edition or version thereof.

Filling the lines (loading with water) – The City valve crew will operate valves on City water system. The valves shall be opened slow (crack open) to fill lines at a slow rate to prevent water hammer. Velocity in pipe should be at 1.0 fps or less. Remove any trapped air pockets (including operating the angle stops for the water service lines).

Debris flush - After filling the water line and removing any trapped air pockets, flush the line at a velocity of at least 3 feet per second (Water Utilities & Infrastructure to measure the flow rate). *This must be system segment flush.*

Loading the lines (with chlorine) – the process of adding disinfection agents into the line.

Dissipation flush – the process of flushing out the main at end of a successful chlorination process using a jumper until water has chlorine residual less than 4.0 ppm (mg/L). Operate the angle stops for the water services to verify the services have been flushed of the chlorinated water.

Submit For Review and Approval.

1. Before the pre-construction meeting can be scheduled, the contractor shall submit the flushing plan. The Contractor shall develop a written plan for flushing each main line segment, including the sequence of valve and fire hydrant operations. The sequence of runs should be compiled in an order of operation from water source to the furthestmost outlet and from large pipe to small pipe. Make sure all mains are flushed including dead ends, laterals on fire hydrants, etc. Sample points shall be provided on each 1,000 feet intervals of new water main, at the end of line and at on each branch on the main line. Sample points shall be included as a part of the plan.

Method of construction to include method of chlorination, type and quantity of chemicals, source of water for disinfection, discharge locations of chlorinated water or, if needed, method of dechlorinating the flush water. The contractor shall provide the calculations of how they determined the amount of chlorine agent used for disinfection.