ELK GROVE VILLAGE
WATER SYSTEM SPECIFICATIONS

1. All water valves shall be Mueller Series A-2361-20 iron body resilient wedge gate valves. All valves shall be rated for 300 psi test pressure and 150 psi working pressure.

2. Valve boxes, **which may be used only with Village approval**, shall be Tyler #664 – 4-inch diameter – screw type with the word "WATER" imprinted on the cover.

3. Valve vaults shall be precast concrete with split or one-piece precast bottoms:

    a. 48-inch diameter vaults for watermain 8-inch diameter or smaller.

    b. 60-inch diameter vaults for watermain 10-inch diameter or larger.

    c. Pressure connections will increase vaults to next larger size.

    d. Steps will not be required in vaults.

4. Frames and covers shall be Neenah Foundry #R-1713 with Type "B" Lid or approved equal, with the word "WATER" imprinted on the cover.

5. Pressure connections for 3 inch and larger ductile iron services shall be made using a Smith-Blair All Stainless-Steel Tapping Sleeve, Model 665 with Mechanical Joint Outlet, or approved equal. Service valve shall be installed adjacent to the tapping sleeve utilizing a foster adapter.

6. Water service connections for 2 inches and smaller shall be made using a Smith-Blair Service Saddle Double Strap, Model 317.

7. Roundways shall be Mueller B-25155N Oriseal Brass type. Only no lead brass will be accepted for installation.

8. Corporation stops shall be Mueller B-25008N Brass type. Only no lead brass will be accepted for installation.

9. Service boxes (B-boxes) shall be Tyler or McDonald 2-inch Upper Telescoping, Minneapolis Pattern screw on type.

10. All water and sewer mains or services required to cross a street shall be augured under pavement.

11. All watermains and water services shall have a minimum cover of 5 ½ feet.

12. Watermains shall be Ductile Iron Pipe, Class 52 conforming to ANSI A21.51 or AWWA C151. Watermains shall be cement lined in conformance with ANSI A21.4 or AWWA C-104. Watermains shall be zinc coated in conformance with ISO 8179-1 and be protected with an asphaltic coating in accordance with AWWA C-151.

13. Ductile Iron fittings shall conform to ANSI A21.11 or AWWA C-110. Ductile Iron fittings shall be zinc coated in conformance with ISO 8179-1 and be protected with an asphaltic coating in accordance with AWWA C-151.

14. Rubber Gasket Joints for Ductile Iron Pipe shall conform to AWWA C-111.

15. Water services 2 ½ inch diameter or smaller shall be Type "K" copper. Compression fittings shall be used to connect new copper pipe to existing service pipe.

16. Water services 3 inches or larger shall be Class 52, Ductile Iron Pipe.

17. All watermain and services 3 inches or larger shall be pressure tested (2 hours – 150 psi) and chlorinated per Elk Grove Village and IEPA requirements.

18. Final valves for fire suppression and domestic water line must be in place prior to chlorinating.

19. **A Village inspector <u>MUST</u> be present for testing and chlorination.** AWWA Sections C-600-77 and C-601 shall apply.

20. All watermains shall be bedded with compacted granular CA-7 material – minimum thickness equal to ¼ the outside diameter of the pipe, but not less than 4 inches.

21. Fire hydrants shall be East Jordan Iron Works® Watermaster® 5BR250 with auxiliary valve and valve box per Village standards.

22. Maximum fire hydrant spacing within the Village is three hundred (300) feet.

23. **Existing water valves shall not be opened/closed without permission from the Village.**

24. Maximum spacing between water valves shall be eight hundred (800) feet.

25. Joints between precast elements, adjusting rings and frames shall be sealed with Butyl Rubber Joint Sealer.

26. Thrust blocking shall be installed on watermains at all bends, tees, elbows, offsets, etc. (see Village detail)

27. Water meter size and location shall be shown on the plan. Meter shall be located within the first 5 feet inside the building or as approved by the Village.

28. A reduced pressure zone backflow preventer shall be provided by owner and installed by the contractor with the water meter per Village requirements.

29. The Elk Grove Village Water Department (847) 734-8800 should be contacted for installation questions and/or final inspection of the water meter and backflow preventer.

30. The contractor is responsible for verifying the location of all existing utilities prior to the start of work and will be responsible for any damage to same.

31. Damaged parkway lawn areas shall be restored with **4 inches of topsoil and sod.**

32. All valve and pressure connection hardware must be stainless steel, including nuts, bolts, and washers.

ELK GROVE VILLAGE WATER SERVICE ABANDONMENT NOTES

Note that work may be required to be performed during the evening or on a weekend, at a time determined by the Village to minimize the disruption of service to our customers.

For Copper service lines: The b-box and copper service line shall be removed. The corporation stop shall be closed and capped using a Ford Abandoned Corporation Cap (FACC). The FACC shall be installed per manufacturer's specifications. Bolts shall be tightened to achieve the proper recommended torque, 75 ft-lbs.

For Water Services 3 to 6-inch (Pressure Connections Only) on 10 to 16-inch pipes: The valve box or valve vault, service line, pressure connection sleeve and valve shall be removed. A stainless steel repair sleeve (minimum length shall equal the size of the connection multiplied by four) shall be installed on the water main. In unusual circumstances, the Village may direct the contractor to remove the valve box/valve vault, service line, while capping or plugging the valve in place.

For Water Services larger than 6 inches (Pressure Connections): The valve box or valve vault, service line, and a section of the Village's water main five feet from each end of the pressure connection sleeve shall be removed. This section of Village water main shall be replaced with Village approved materials, class 52 ductile iron water main and megalug fittings. In unusual circumstances, the Village may direct the contractor to remove the valve box/valve vault, service line, while capping or plugging the valve in place.

For any Water Service connected at a Tee Fitting: The valve box or valve vault, service line, and a section of the Village's water main five feet from each end of the tee shall be removed. This section of Village water main shall be replaced with Village approved materials, class 52 ductile iron water main and megalug fittings. In unusual circumstances, the Village may direct the contractor to remove the valve box/valve vault, service line, while capping or plugging the valve in place.