

**APPENDIX B – WATER LINE DRAWING REQUIREMENTS****A. General**

1. Water line horizontal alignment generally 10' north and east of street centerline; 5' min. from lip of flow line or cross pan; 10' min. from R.O.W. line.
2. All water mains shown in both plan and profile.
3. Water demands, including peak fire flow and maximum hour use, shown at connection(s) to existing system. Number and type of units.
4. Water easement drawings and legal descriptions submitted with PLS seal and signature affixed.
5. Water system notes included (refer to attached).
6. Water system details included.
7. Service tees not allowed.
8. Service tap locations, including size, to buildings, shown on as-builts.

**B. Water - Plan View Requirements**

1. Scale: 1" = 50', minimum.
2. Water line stationed.
3. Pipe size and material called out.
4. All valves, fittings, fire hydrants, wet taps, thrust blocks, restraint lengths, blow-offs and other appurtenances called out.
5. Water line linear footage between valves, fittings and appurtenances called out.
6. Radius of deflected water line called out. Three degrees (3°) maximum deflection per joint.
7. Water lines dimensioned from street centerline,  $\varnothing$  property line, and from other utilities, curb and gutter and other appurtenances.
8. Connections to existing system shown on plan and tied to property corner or section corner.
9. At least a 10' workable easement margin on each side of the water line.
10. Valves located at property line extensions. Valves required to isolate all fire hydrants, both ends of a water line through an easement or creek crossing and spaced to minimize the number of units put out of service during water line maintenance and repair work.
11. Valve and fitting markers included for water line outside of paved right-of-way.
12. Fire lanes called out.
13. PRV size and inlet and outlet pressures shown.
14. Match lines and sheet references.
15. All utility improvements including sanitary sewer and storm sewer, shown on plans.
16. All gate valves numbered.

**C. Water - Profile View Requirements – (Required For All Water Main)**

1. Scales: 1" = 50' (horizontal)  
1" = 5' (vertical)
2. Water line stationed.
3. Pipe size, linear footage and grade called out between all grade breaks and fittings.
4. Top of pipe elevations called out at all grade breaks, fire hydrants, blow-offs, air and vacuum valves, plugs, connections to existing water system and match lines.
5. 4-1/2' minimum cover from finished grade to top of pipe.
6. 6-1/2' minimum cover for air and vacuum valve vaults.
7. Restrained pipe length shown on profile.

8. Connections to existing system shown on profile.
9. Crossings with other utilities shown on profile (1-1/2 minimum separation from outside of pipe to outside of pipe).
10. Match lines and sheet references.