

DISTRICT STANDARD GENERAL NOTES

(Minimum Requirements)

1. Unless stated otherwise, all work is to be performed in accordance with the most current Washington State Department of Transportation (WSDOT) Standard Specifications for road, bridge and municipal construction and the District requirements as outlined in the District's Water Policy Manual.
2. The contractor shall schedule a pre-construction conference with the District Engineering Department, (360) 424-7104, a minimum of 48 hours prior to construction.
3. All permits necessary for the installation of the proposed water system improvements will be the responsibility of the Developer, Engineer, or Contractor to acquire. A copy of the permits will be submitted to the District, prior to construction. All rights shall be granted to, or transferred to, the District.
4. District reference documents, such as Standard Details, Water Policy Manual, Drawing Standards, etc., can be found on the District website at www.skagitpud.org.
5. All tie-ins, shutdown, flushing, and health samples shall be coordinated with the District. The contractor shall not operate any valves.
6. A list of all materials, indicating the manufacturer, model, and size, for the water system improvements will be approved by the District prior to construction. Contact District for submittal requirements.
7. Ductile Iron pipe will be minimum class 50 AWWA C151 per WSDOT standard specifications 9-30.1 and 9-30.1(1). All Ductile Iron water pipe and fittings shall be completely wrapped with a minimum of eight-mil polyethylene pipe encasement and installed in accordance with AWWA C105 and WSDOT standard specifications 7-09.3(17) and 9-30.1(2).
8. All bolts used in buried flanges shall be ASTM A307 Grade B unfinished with nuts to ASTM A563 Grade A and washers to ASTM F8444, or ASTM A325 Type 3 (corten steel) unfinished, with nuts to ASTM A563C3 or A563DH3 and washers to ASTM F436-1. All bolts, nuts and washers used in exposed or above ground locations shall be ASTM A307 Grade B unfinished or hot-dip galvanized.
9. All gate valves to be resilient seated gate valves, AWWA C515 or C509 (ductile iron body only) with stainless steel nuts, bolts and trim.
10. All butterfly valves to be rubber seated butterfly valves, AWWA C504 with stainless steel nuts, bolts and trim.
11. Restrained joints may be used in place of concrete blocking as directed by the Project's Design Engineer and accepted by the District.
12. All fire hydrants shall conform to AWWA C502 with Storz adaptors. Acceptable fire hydrants include Clow Medallion, Mueller Centurion or Super Centurion, American Darling B62B and American AVK Nostalgic.
13. A #10 solid copper wire with blue insulation is to be installed with/and attached to all new water pipelines and service pipelines. Refer to District Details for installation requirements.

14. Unless otherwise specified, all water pipeline installations require a 36-inch minimum cover and 48-inch typical trench depth to existing or future finish grade and a minimum of 1-foot vertical and 5-foot horizontal clearance between water pipeline and all other utilities unless otherwise specified.
15. When installing water pipeline across existing or proposed sanitary sewer, a full length of pipe shall be installed with mid-span of the water pipe over the sewer. A minimum 10-foot horizontal separation and 18-inch vertical separation between water pipelines and sanitary sewer pipelines is required, unless an alternative proposal from the design engineer is submitted to and approved by the District.
16. Bedding material for waterlines shall be a maximum size of 1 1/2-inches and per WSDOT Specification 7-09.3(9) and 9-03.12(3). Pea gravel and buckshot are not acceptable.
17. Backfill trenches in pavement areas with pit-run gravel compacted to at least 95 percent minimum density per WSDOT Specification 7-09.3(11) and 9-03.14(1). The contractor shall make all pavement repairs and perform all restoration.
18. Disinfection and flushing of the water pipelines are to be per WSDOT Specifications and AWWA C651-14. Use de-chlorination equipment when flushing or, with permission of the appropriate sewer utility, flush into sanitary sewer manholes. Do not flush into or allow chlorinated water to drain into any creek, wetland, or catch basin. The Contractor will submit a Pressure Testing, Disinfection, and Flushing plan to the District prior to construction.
19. All salvaged usable District owned materials are to be delivered to the District Office at 1415 Freeway Drive, Mount Vernon, or as directed by the District.
20. The utility locations marked on this map are approximate. The contractor is to verify actual location and depth prior to construction. Call the underground utility locate center at 800- 424-5555.
21. All private fire sprinklers or private fire hydrant pipelines are required to be installed with a Washington State Department of Health (WSDOH) approved double check detector assembly(ies) or reduced pressure detector assembly(ies), located immediately after the fire service connection. A Badger Recordall meter with a remote touch-read pad will be supplied and installed by the District within 6-inches of the vault lid's hinge and brass plugs in the test ports. Meter supply and installation will be included with the charges in the Work Order.
22. A lead free, Washington State approved, reduced pressure backflow prevention assembly shall be installed at temporary connections between the existing District pipelines and new water pipelines for filling, flushing and pressure testing of the improvements. Upon temporary connection, and prior to filling, the assembly shall have been successfully tested by a backflow assembly tester (BAT) and the test report is to be provided to the District.
23. Before final connection to the existing District system, all new water pipelines and repaired portions of/or extension to existing pipelines shall be adequately disinfected and a satisfactory bacteriological report obtained.

24. Molecularly Oriented Polyvinyl Chloride (PVCO) pipe will be pressure class 235 C909 per AWWA C909-16 and per WSDOT standard specification 9-30.1 and 9-30.1(5)A. Fittings for PVCO pipe shall be the same as specified for ductile iron per WSDOT standard specifications 9-30.2 and 9-30.2(1). All ductile iron fittings shall be completely wrapped with DENSO or equivalent Wax Tape System. Use EBAA Iron Series 1900 and 19MJ00, or equivalent, to retrain pipe joints for C909 PVCO pipe. Installation of PVCO pipe shall be in accordance with AWWA C605, current version of WSDOT Standard Specifications, and pipe manufactures recommendations.
25. Pressure test new pipeline, including fire hydrants and service lines as per WSDOT standards.

Test Date _____	Test Pressure _____
Time Start _____	Time End _____
Pressure Drop _____	Make-Up Water _____

Test Date _____	Test Pressure _____
Time Start _____	Time End _____
Pressure Drop _____	Make-Up Water _____

Test Date _____	Test Pressure _____
Time Start _____	Time End _____
Pressure Drop _____	Make-Up Water _____

Test Date _____	Test Pressure _____
Time Start _____	Time End _____
Pressure Drop _____	Make-Up Water _____

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