

The following general notes are to be provided on all civil plans submitted for review which add, repair, or modify water systems.

Updated: June 2011

## **WATER NOTES**

1. Refer to GENERAL PLAN NOTES for additional requirements.
2. All water mains shall be pressure tested and disinfected in accordance with the most current addition of the Washington State Standard Specifications for Road, Bridge and Municipal Construction, NFPA 24 and the City of Lynnwood requirements. All pressure testing shall be done in the presence of a representative of the City of Lynnwood. All mains shall be sterilized and flushed prior to placing lines into services. The main shall be inspected by the City of Lynnwood Public Works inspector prior to backfill. An as-built copy shall be provided to the City of Lynnwood prior to Public Works acceptance.
3. Ductile iron pipe shall be new, Class 52, cement-mortar lined, centrifugally cast pipe conforming to the requirements of AWWA C-151 and WSDOT standard spec. 9.30.1(1). Non restrained joints shall be rubber gasket, push on type, or mechanical type meeting the requirements of AWWA C111. Restrained joints shall be as specified in section 9-30.2(6) of Washington State Standard Specifications for Road, Bridge and Municipal Construction. All pipe shall be clearly marked with the manufacturer's name, type, class and thickness as applicable. All fittings shall be per WSDOT standard specification 9-30.2 and 9-30.2(1).
4. Concrete thrust blocking shall be placed at all bends, tees, dead ends, crosses and as designated by the Public Works Director. Blocking shall be class 3000 concrete mix or as approved, poured in place and cured against approved forms and native cut slopes. All blocking shall be inspected and approved prior to back fill.
5. Fire hydrants shall conform to 9-30.5 of the most current addition of Washington State Standard Specifications for Road, Bridge and Municipal Construction, AWWA C502, AWWA 110, AWWA C111, NFPA 24 and applicable City of Lynnwood specifications and standards.
6. Hydrant connection pipes shall be 6 inch inside diameter with 6 inch auxiliary gate valve. Barrels shall have a 7 inch minimum inside diameter. Valve openings shall be 5- ¼ inch minimum diameter. Hydrants shall have two, 2- ½ inch hose ports and one National Standard Thread w/4 inch Storz adaptor and cap on the 4-½ inch port. Retainer glands to be Megalug or approved equivalent. ½ cubic yards of ¾ inch to 1-½ inch drain rock required. Two coats of "Rust-Oleum" high gloss caterpillar yellow required or acceptable alternative.
7. All hydrants shall be Mueller Super Centurion 200 A 423; or M&H Valve Co., Style 929; or American Darling B62B per City of Lynnwood Std. 5-7.
8. 2 inch and smaller water service(s) within City of Lynnwood right of way and on private property shall be installed per WSDOT standard specification 9-30.6, the approved plans and City of Lynnwood standards 5-1 & 5-2. All services, unless specified, shall be installed by a City of Lynnwood approved contractor and at the developer's expense. All 3 inch and larger services are always installed by the developer at no expense to the City of Lynnwood. The 3 inch and larger

services shall be installed per the approved plans, WSDOT specifications and City of Lynnwood Standard 5-3.

9. Valve boxes shall be installed on all buried valves. The box shall be of cast iron, two-piece slip type standard design with a base corresponding to the size of the valve. The box shall be coal-tar painted by the manufacturer using the standard. The cover shall have the word "WATER" cast in it. Valve boxes shall conform to WSDOT spec. 9-30.3(4) and Lynnwood Standard 5-4.
10. Bedding for pipe shall be per WSDOT Standard Plan No. B-11. Backfill shall be placed per section 7-10 of the Washington State Standard Specifications for Road, Bridge and Municipal Construction, approved plans and City of Lynnwood Specifications and standards.
11. All water mains to maintain a minimum cover of 36 inches below finish grade. 12 inches minimum separation is required between utilities crossing perpendicularly, (18 inches for sanitary sewer). At no point should these depths exceed 6 feet except when specifically approved on the plans or by the Public Works Inspector.
11. All pipe is to be laid at true line and grade unless otherwise approved by the City of Lynnwood. At no time shall the maximum pipe deflection exceed the manufactures requirements. The maximum permissible deflection per stick is as follows:

Pipe Diameter	Max Deflection per 18 ft
4" _____	21"
6" _____	19"
8" _____	19"
10" _____	19"
12" _____	19"