

WATER NOTES:

1. SPECIFICATIONS FOR ALL MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" AS PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION.
2. THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT (360.835.2662) 24 HOURS PRIOR TO THE START OF CONSTRUCTION. INSPECTION AND APPROVAL OF THE CONSTRUCTION WILL BE BY THE CITY PUBLIC WORKS OFFICE. A SATISFACTORY PRESSURE AND BACTERIOLOGICAL TEST FOR THE WATER CONSTRUCTION IS REQUIRED FOR APPROVAL.
3. WHEN CONSTRUCTION IS TO TAKE PLACE WITHIN A CITY RIGHT-OF-WAY A CITY APPROVED TRAFFIC CONTROL PLAN WILL BE REQUIRED PRIOR TO THE START OF CONSTRUCTION.
4. WHERE EXISTING SERVICE MUST BE INTERRUPTED, THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT AND ALL CUSTOMERS AFFECTED AS TO THE DATE AND DURATION OF THE INTERRUPTION. NOTIFICATION MUST BE DONE 48 HOURS IN ADVANCE OF THE INTERRUPTION. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION TO PROVIDE MINIMUM INTERRUPTION OF SERVICES AS DETERMINED BY THE INSPECTOR. ALL SERVICE INTERRUPTIONS SHALL BE PERFORMED BY THE CITY.
5. NO EXCAVATED MATERIAL TO BE PLACED ON ROAD SURFACES UNLESS APPROVED BY A CITY REPRESENTATIVE.
6. ALL PIPE FURNISHED SHALL BE NEW AND CONFORM TO THE REQUIREMENTS OF AWWA C151-71.
7. ALL PIPE SHALL BE CLASS 52, DUCTILE IRON, UNLESS OTHERWISE NOTED ON THE PLANS.
8. ALL PIPE SHALL BE FURNISHED IN 18 TO 20 FOOT LENGTHS AND SHALL BE CEMENT MORTAR LINED.
9. ALL RUBBER GASKET JOINTS FOR DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF AWWA C111-80.
10. ALL FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C110-82 OR C153-85.
11. FITTINGS SHALL BE OF THE SIZE, TYPE, TYPE OF IRON, AND TYPE OF JOINT AS CALLED FOR ON THE PLANS. ALL DUCTILE IRON FITTINGS SHALL BE CEMENT LINED.
12. COMPACT FITTINGS WILL ONLY BE ALLOWED ON INSTALLATIONS THRU 12" DIAMETER. ALL COMPACT FITTINGS SHALL BE DUCTILE IRON, CEMENT LINED, AND HAVE A PRESSURE RATING OF 350 PSI.
13. ALL RUBBER GASKET JOINTS FOR DUCTILE IRON AND GREY IRON FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C111-80.
14. BED PIPE WITH SCREENING 6" BELOW AND 12" ABOVE.
15. TRENCH BACKFILL MATERIALS SHALL BE ACCORDING TO THE BACKFILL SECTION SHOWN ON THE PLANS AND/OR UTILITY PERMIT. NO DITCHES WILL BE LEFT OPEN AND TEMPORARY COLD MIX INSTALLED IF IN HIGH TRAFFIC AREAS. ALL PIPE WILL BE CAPPED OR PLUGGED WHEN LEFT UNATTENDED.



WATER NOTES (1 OF 3)

DATE: December 2016

DETAIL  
NO.

W5

WATER NOTES (CONT):

16. COMPACTION OF THE TRENCH BACKFILL SHALL BE ACCORDING TO SECTION 7-10 OF THE SPECIFICATIONS. EACH BACKFILL LAYER SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY THE COMPACTION CONTROL TEST.
17. COMPACTION CONTROL TESTS TO DETERMINE OPTIMUM MOISTURE CONTENT AND MAXIMUM DENSITY SHALL BE BY THE FOLLOWING METHODS:
  - A. FOR NON-GRANULAR MATERIALS - METHOD OF TEST FOR COMPACTION CONTROL OF GRANULAR MATERIALS (WSDOT TEST METHOD NO. 609)
  - B. FOR GRANULAR MATERIALS - METHOD OF TEST FOR COMPACTION OF GRANULAR MATERIALS (WSDOT TEST METHOD 606).
  - C. FIELD MOISTURE AND DENSITY OF BACKFILL MATERIAL SHALL BE DETERMINED BY THE NUCLEAR MOISTURE/DENSITY GAUGE
18. THE SERVICES ARE TO BE INSTALLED BY THE CONTRACTOR, AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT, 24 HOURS AFTER COMPLETION OF THE SERVICE LINES. THE WATER METERS WILL BE SET BY THE CITY. PRIOR TO INSTILLATION OF THE WATER LINES, IT IS REQUIRED THAT THE DEVELOPER SUPPLY THE CITY WITH A REPRODUCIBLE COPY OF THE PLAT MAP INDICATING THE ADDRESS OF EACH LOT IMMEDIATELY UPON COMPLETION OF THE PROJECT. NO WATER METERS WILL BE SET UNTIL THESE CONDITIONS ARE MET.
19. RESILIENT-SEATED VALVES WILL BE USED FOR VALVE INSTALLATIONS OF 8 INCH AND SMALLER.
20. RESILIENT-SEATED VALVES SHALL BE USED ON ALL FIRE HYDRANT AND FIRE PROTECTION SERVICE INSTALLATIONS.
21. RESILIENT-SEATED VALVES SHALL CONFORM TO AWWA C509-87 AND SHALL BE EPOXY COATED ON THE INSIDE
22. BUTTERFLY VALVES SHALL BE USED FAR ALL VALVE INSTALLATIONS 10 INCH AND LARGER.
23. BUTTERFLY VALVES SHALL MEET OR EXCEED ALL AWWA C504-80 SPECIFICATIONS AND SHALL BE CLASS 150-B WITH SHORT BODY.
24. BUTTERFLY VALVES SHALL BE REQUIRED TO HAVE A MINIMUM OF 28 TURNS TO MOVE FROM FLLY OPEN TO FULLY CLOSED POSITION. THE OPERATOR SHALL BE MOUNTED DIRECTLY ON THE VALVE WITH NO EXPOSED OR EXTERNAL COUPLINGS. UNITS SHALL BE FULLY GASKETED AND GREASED PACKED. VALVES SHALL BE INSTALLED WITH THE OPERATOR ON THE CENTERLINE OF THE ROAD SIDE OF THE PIPE.
25. ALL VALVES SHALL BE FURNISHED WITH AN UNDERGROUND MANUAL OPERATOR WITH AN AWWA 2 INCH SQUARE OPERATING NUT AND SHALL OPEN WITH A COUNTER-CLOCKWISE ROTATION. VALVES SHALL BE FURNISHED WITH JOINTS AS CALLED FOR ON THE PLANS.
26. ALL VALVES TO BE CENTERED IN VALVE BOXES ON RISERS.
27. ALL BLOW-OFFS TO BE CENTERED IN VALVE BOXES AND RISERS.
28. TAPPING SLEEVE SHALL BE 304 STAINLESS STEEL WITH STAINLESS STEEL FLANGE. JCM OR EQUIVALENT
29. ALL BOLTS FOR TAPPING SLEEVES SHALL BE 304 STAINLESS STEEL OR APPROVED EQUAL.
30. TAPPING SLEEVE AND VALVE SHALL BE SUPPORTED BY 6" MIN. CTSC OR AS DETERMINED BY INSPECTOR AND COMPACTED TO 95%.
31. A CITY REPRESENTATIVE MUST WITNESS AIR TEST AND BE PROVIDED WITH TAPPING COUPON.



WATER NOTES (2 OF 3)

DATE: December 2016

DETAIL  
NO.

W6

WATER NOTES (CONT):

32. TAPPING SLEEVE EDGE SHALL BE A MINIMUM OF 18 INCHES FROM BELL OR SPIGOT END OF EXISTING PIPE, AND A MINIMUM OF 18 INCHES FROM ANY OTHER TAP OF FITTING.
33. CONTRACTOR SHALL SCHEDULE THE HOT TAP WITH THE CITY 48 HOURS (2 WORKING DAYS) IN ADVANCE.
34. SIZE ON SIZE TAPS ARE NOT PERMITTED.
35. CONCRETE THRUST BLOCKING FOR TAPPING SLEEVES TO BE CLASS 4000 AND SHALL BE THE SAME AS REQUIRED FOR AN EQUAL SIZED TEE.
36. VALVE BOXES SHALL BE FORT VANCOUVER PATTERN, CAST IRON, MANUFACTURED BY VARICAST OR APPROVED EQUAL.
37. VALVE BOX EXTENSIONS SHALL BE ONE PIECE SCHEDULE 40 PVC, 6" MINIMUM, LOCATE EXTENSION 4" BELOW CAST LID, WITH THE WORD "WATER" OR "W" CASTED ON LID.
38. VALVE BOXES NOT SET IN PAVED AREAS, SHALL BE SET IN A CONCRETE PAD, 24" SQUARE, 4"-6" THICK.
39. OPERATOR NUT SHALL HAVE A FACTORY EXTENSION ADDED, IF OVER 4' TO FINISH GRADE, TO A DISTANCE OF 18" FROM FINISHED GRADE.
40. HYDRANTS TO BE COVERED TO INDICATE UNDER CONSTRUCTION UNTIL ACCEPTED BY THE CITY.
41. FITTINGS SHALL BE OF THE SIZE, TYPE, TYPE OF IRON, AND TYPE OF JOINT AS CALLED FOR ON THE PLANS. ALL FITTINGS SHALL HAVE A PRESSURE RATING OF 250 PSI MINIMUM.
42. COMPACT FITTINGS WILL ONLY BE ALLOWED ON INSTALLATIONS THRU 12" DIAMETER, AND SHALL HAVE A PRESSURE RATING OF 350 PSI.
43. ALL REDUCERS SHALL BE MECHANICALLY RESTRAINED. BOLTS FOR FLANGED FITTINGS SHALL BE GALVANIZED OR ZINC-CADMIUM PLATED.
44. BOLTS FOR MECHANICAL JOINTS AND CAST IRON TAPPING SLEEVES SHALL BE NSS CORTEN STEEL.
45. THE MINIMUM COVER FOR ALL SIZES OF PIPE SHALL BE 3 FEET BELOW FINISHED STREET GRADE OR BELOW EXISTING GROUND, WHICHEVER IS GREATER. MAXIMUM COVER SHALL BE 5 FEET UNLESS APPROVED OTHERWISE.



WATER NOTES (3 OF 3)

DATE: December 2016

DETAIL  
NO.

W7