

City of Marysville

Sanitary Sewer Notes to be on all Future Plans

Revised 22-Jun-09

1. All sanitary sewers and appurtenances, materials and installation procedures, shall be in accordance with the current rules and regulations of the City of Marysville.
2. All sanitary mains (8" and larger) and services (6") shall be SDR-35 pipe meeting the requirements of **ASTM D-3034**.
3. All wye fittings shall be SDR-35 sewer pipe and shall have a two foot service extension installed prior to the service being capped and backfill being placed over the mainline lateral sewer.
4. Sewer trenches shall be dewatered to 2" below the bell of pipe prior to installation.
5. The contractor shall provide and install 4' x 4' lumber wye poles at all wye locations as constructed. Wye poles shall extend above the existing or proposed grade, whichever is higher, a minimum of 2' - 0". A 3 foot length of 3/4" diameter steel pipe or rod shall be attached to the wye poles 2" below final grade. Wye poles are to be painted pink.
6. All water mains are to be separated 10 feet horizontally and 1.5 feet vertically from all parallel sanitary sewers.
7. Whenever a water main and sanitary sewer must cross, the water main shall be 1.5 feet above the crown of the sewer pipe. Measurement to be between the outside of pipe walls.
8. Approval of these plans is contingent upon all required sanitary sewer easements being approved by the City and recorded prior to construction.
9. Any field tile disturbed during construction shall be replaced, as directed by the City Engineer, with SDR-35 perforated pipe. Pipe will be used to span the trench, or to intercept and convey to the storm sewer. Trench to be backfilled with compacted granular material.
10. All sanitary sewer trenches, not within a streets influence, shall be backfilled with excavated material in lifts not to exceed 8 inches, compacted to 95% maximum dry density.
11. All sanitary laterals which cross a water line or storm sewer shall be extended 10 feet beyond the water line or storm sewer.
12. Risers shall be placed on wyes as directed by the engineer, and as shown on the typical sanitary service lateral installation detail. Deep Socket fittings are to be installed on the riser, as shown on Marysville Standard Drawing No. 03.1 and 03.2

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13. All service extensions shall be laid at a minimum grade of 1/4" per foot and shall be constructed at the time of construction of the main sewer, unless directed otherwise by the engineer. Service extensions shall be constructed as shown on the standard construction drawing and typical sanitary service lateral installation detail. See Dual Lateral Extension detail if it is necessary to lay two services in a single trench.
14. Manhole castings are to be set, or subsequently adjusted to 2" above the surface grade established by the engineer when manhole is outside paved areas. All adjustments shall be performed using precast rings. Bricks shall not be used for grade adjustment unless directed by the engineer.
15. All manholes shall be City of Marysville standard precast concrete manholes as shown on the standard construction drawings. Casting to be **NEENAH #R-1762** or equal, with "Marysville Sanitary Sewer" cast into the lid.
16. Sanitary sewers shall be tested by the air testing method. The air pressure shall not drop more than 1 PSIG from 3.5 to 2.5 in the allowable time per **UNI-B-6** standards. Contractor shall cooperate with Marysville City Engineer and provide equipment necessary for test.
17. All sanitary sewer installed on this project using PVC pipe will be subject to deflection testing. An approved "go-no go" mandrel must be pulled by hand through the pipe, after backfilling has been in place for at least 60 days. The maximum allowable deflection is 5% of the internal diameter. Pipe exceeding the allowable deflection shall be located, excavated, replaced and retested at the sole expense of the contractor. City Engineer or his representative must witness test.
18. Temporary bulkheads shall be placed where indicated on the plans, and shall remain in place until removal is directed by the City Engineer.
19. All sanitary lines shall be cleaned of debris (leaves, stone, dirt, etc.) prior to City taking ownership.
20. Sanitary Sewer must meet "10 States Standards".
21. All sanitary trunk lines are to be camera/video taped prior to the City of Marysville's final acceptance. A copy of the DVD, with a summary report is to be provided to the City Engineer.
22. All manholes are to be vacuum tested in accordance with **ASTM C-1244** (10 States Standards)
23. All sanitary manholes are to be encapsulated with "**Wrapidseal**" or approved equal. **Cretex interior chimney seals** or approved equal shall be installed between the cone section and the casting of the manhole.
24. Private sanitary sewers shall be tested by the air testing method. The air pressure shall not drop more than 1 PSIG from 3.5 to 2.5 in the allowable time per **UNI-B-6** standards. Contractor shall cooperate with Marysville City Engineer and provide equipment necessary for test.

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**Backfill operations shall conform to Standard Construction Drawing 63
and meet the specifications listed below in Notes 1, 2, and 3.**

1. Sanitary trenches outside of the influence of streets shall require 95% of maximum dry laboratory weight at plus or minus 2% of optimum moisture. Material shall be per **ODOT 203.07 and Supplemental Specification 1015.**
2. Storm, sanitary, and utility trenches within 3 feet of the edge of pavement and within the cone of influence shall require 98% of the maximum dry laboratory weight at plus or minus 2% optimum moisture. Backfill material shall be **ODOT 304** aggregate or **ODOT 613, Low Strength Mortar (LSM)**. Where said results indicate the trench backfill does not meet the compaction requirements of **ODOT 203.07** of the construction and materials specification, all backfill shall be removed and retested until compaction meets the requirements of 203.07. Cone of influence to begin 3 feet from the edge of pavement and extend one foot in distance for every one foot of depth.
3. Storm, sanitary, and utility trenches under road pavement shall require 98% of the maximum dry laboratory weight at plus or minus 1.5% optimum moisture. Backfill material shall be **ODOT 304** aggregate or **ODOT 613, Low Strength Mortar (LSM)**. Backfill to begin 3 feet from edge of pavement and extend one foot in distance for every one foot of depth. Where said results indicate the trench backfill does not meet the compaction requirements of **ODOT 203.07** of the construction and materials specification, all backfill shall be removed and retested until compaction meets the requirements of **203.07**.
4. The Contractor shall place cutoff trench dams of native clay or impervious soil across and along the trench between adjacent manholes to retard and resist the movement of groundwater through the trench per **Item 3.2C** in the **Sanitary Sewer Specifications**.
5. Soil tests shall be taken at all sanitary sewer, designated storm sewer trenches, and water line trenches which cross the proposed pavement or which lie within any part of the influence line of the proposed pavement.