



## SEWER LINE EXTENSION AS-BUILT CHECKLIST

DISCLAIMER - This checklist is provided to Consulting Engineers and Surveyors for the express purpose of assisting them in compiling as-built plans and other administrative documents for submittal to the Pierce County Public Works and Utilities Department. This checklist is merely a guide to assist the engineer or surveyor in providing the minimum information required for as-built plan submittal. This checklist should be utilized in conjunction with the sewer line extension standard as-built plans in completing your as-built plans. The complexity of the design may require additional information not included on this checklist. This checklist may be revised from time to time and the user should insure that he/she has the most recent copy prior to compiling an as-built. If you have any questions regarding this checklist, please contact our office at (253) 798-4050.

This form has been completed by: \_\_\_\_\_ Date: \_\_\_\_\_  
(Form to be completed by the Consulting Engineer or Surveyor and included with as-built plans on the initial submittal)

### GENERAL INFORMATION

	<u>Done</u>	<u>N/A</u>	
1.	___	___	Project Name: _____
2.	___	___	SWLE Number: _____
3.	___	___	Engineer/Surveyor Name: _____
4.	___	___	Address: _____
5.	___	___	Phone/Fax: _____
6.	___	___	Owner Name: _____
7.	___	___	Owner's Contact Person: _____
8.	___	___	Address: _____
9.	___	___	Phone/Fax: _____

## SUBMITTALS

- |     | <u>Done</u> | <u>N/A</u> |   |
|-----|-------------|------------|---|
| 10. | ___         | ___        | As-built plans must be stamped, signed and dated by an Engineer or Surveyor licensed in the State of Washington. The as-built plans must be stamped, signed dated, and noted as "AS-BUILT" on every plan sheet.   |
| 11. | ___         | ___        | Two (2) sets of plans are required for the initial submittal. Two (2) sets of plans are required for re-submittals. Once the as-built plans are ready for approval, the Sewer Utility Division will require three (3) full-sized, unfolded, reproducible prints on bond, vellum or mylar.   |
| 12. | ___         | ___        | The approved design plans (or a reprinting of the same CAD file as the approved design plans) must be used to create the as-built plans for submittal. As-builts prepared on plans with dropped layers and/or changes in line type and text will be returned without formal review.   |
| 13. | ___         | ___        | Provide calculations for all sewer mains at grades of less than those shown on the approved plans, but not greater or equal to 1%, demonstrating that a minimum self-cleaning velocity of 2 ft/sec can be obtained at full build-out of the project and/or tributary sewer basin. For further information, see the " <a href="#">Calculation of Minimum Pipe Slopes to Obtain Self-Cleaning Velocities in Sanitary Sewers</a> " handout. Calculations must be stamped, signed and dated by an Engineer or Surveyor licensed in the State of Washington. |

## DRAFTING

- |     | <u>Done</u> | <u>N/A</u> |  |
|-----|-------------|------------|--|
| 14. | ___         | ___        | Color text and graphics are not allowed.   |
| 15. | ___         | ___        | Minimum text height is 0.08 inches. Minimum line width is 0.005 inches. Smaller text and lines may be allowed if they are legible, able to be scanned, and are reproducible.   |
| 16. | ___         | ___        | Hatching patterns (lines or dots) must be used in lieu of solid hatching.  |
| 17. | ___         | ___        | Design information must not be obscured except than when it is crossed out to provide as-built information.  |
| 18. | ___         | ___        | Where the as-built information differs from that shown on the approved design plans, the design information shall be crossed out with a single or double line and the as-built information shall be printed adjacent, above or below it. |

## MAINLINES AND MANHOLES

	<u>Done</u>	<u>N/A</u>	
19.	___	___	All sewer related dimensioning, pipe types, pipe diameter, pipe slopes, horizontal and vertical bends, fittings, valves, stationing, offsets, bearings and distances, and rim and invert elevations must be field verified and the actual values shown on the as-built plans where they differ from those shown on the approved design.
20.	___	___	As-built information must be shown at every view, sheet, and detail that the design information was depicted on the approved plans.
21.	___	___	Pipe lengths must be measured from inside wall of manhole to inside wall of manhole, not center-to-center.
22.	___	___	Pipe slopes must be calculated using the invert in and invert out elevations (not manhole centerline elevations) and the pipe length as measured from inside wall of manhole to inside wall of manhole, not center-to-center.
23.	___	___	Show all existing and proposed manholes, cleanouts and sewer lines located on or adjacent to parcel shown. Label existing sewer lines as dashed line, and proposed sewer lines as solid lines. <b>Existing and proposed private manholes must be named with the following convention: "SSMH # (permit number)-#". For example, private manhole #4 of SWLE 409235 must be labeled as "SSMH # 409235-04". Letters are not allowed in the manhole numbering sequence (e.g., "SSMH # 409235-4A"). Existing and proposed public manholes must be named with the following convention: "SSMH # (Assigned number)". For example, public manhole #10983 must be labeled as "SSMH # 10983". Cleanouts should be label as "SSCO" instead of "SSMH"</b>

## SIDE SEWER STUBS

	<u>Done</u>	<u>N/A</u>	
24.	___	___	Side sewer stub stationing shown on the plans must be crossed out. If a table was utilized, the entire table must be crossed out.
25.	___	___	As-built side sewer stub locations must be provided in the specified "bubble" format shown on the As-built Standard Plan. A copy of the standard "bubble" format is attached.
26.	___	___	The side sewer stub location information (i.e., "bubble") must be shown within the lot for which the stub is intended to serve. If lot size does not allow for placement of the bubble within the lot, then a leader must be provided from the bubble to the upstream end of the side sewer stub, and the bubble must be located such that it is aligned with the lot.
27.	___	___	All side sewers shall be located a minimum of 10 feet from an adjoining property line unless private sanitary sewer easements are provided. Side sewer depth at the property line shall not exceed 8 feet unless otherwise approved by the County.

Done N/A

28.    \_\_\_    \_\_\_    Gravity side sewer stubs shall have a minimum 2% slope.
29.    \_\_\_    \_\_\_    Two (2) feet minimum horizontal separation is required between pressure side sewer stubs. Two (2) feet minimum horizontal separation is required between gravity stubs on opposing sides of the sewer main. Ten (10) feet minimum horizontal separation is required between gravity side sewer stubs on the same side of the sewer main. Five (5) feet minimum horizontal separation is required between side sewer stubs and the outer wall of manholes unless the stub is connected to the manhole.

**EASEMENTS**

Done N/A

30.    \_\_\_    \_\_\_    If there are additional off-site or on-site Public Sanitary Sewer Easements required, submit the name (and title, if the owner is a company) of the individual(s) empowered with signing easement documents for the property owner(s), and an electronic copy of the legal description of the easement and graphic drawing of the easement. The County will draft the easement document for the owner's signature. Public easements must be executed and recorded prior to as-built plan approval.
31.    \_\_\_    \_\_\_    If there are additional off-site Private Sanitary Sewer Easements required, submit the draft private easement documents for our review prior to execution and recording with the Pierce County Auditor's Office. If the proposed private sewer line will serve more than one existing parcel, a draft Perpetual Reciprocal Easement, Mutual Maintenance Agreement and Covenant Running with the Land must be submitted for our review prior to execution and recording with the Pierce County Auditor's Office. Only the standard Pierce County form is acceptable. The off-site private easements must be executed and recorded prior to as-built plan approval.
32.    \_\_\_    \_\_\_    If there are additional on-site Private Sanitary Sewer Easements required, and the final plat has already been recorded, submit the draft private easement documents for our review prior to execution and recording with the Pierce County Auditor's Office. If the proposed private sewer line will serve more than one existing parcel, a draft Perpetual Reciprocal Easement, Mutual Maintenance Agreement and Covenant Running with the Land must be submitted for our review prior to execution and recording with the Pierce County Auditor's Office. Only the standard Pierce County form is acceptable. The on-site private easements must be executed and recorded prior to as-built plan approval.
33.    \_\_\_    \_\_\_    All public and private easements must be recorded and their boundaries and Auditor's Fee Numbers (AFNs) shown on the as-built plans prior to as-built approval.
34.    \_\_\_    \_\_\_    Show the bearings and distances of existing or proposed sewers within existing or proposed easements as well as the easement boundaries.

**BONDING**

**Done**   **N/A**

35.                    Submit a complete, itemized, ‘Contractor’s Construction Cost Letter’ for all the sanitary sewage facilities to be dedicated to the County, including the cost for sewer stubs. The cost letter shall also include the cost for restoration work to existing pavement. The cost letter does not need to include the cost of hot mix asphalt used for new road construction provided that a separate maintenance guarantee for these improvements will be in force through the Pierce County Planning and Land Services Department (or the local jurisdiction) for a minimum of 12-months after final written acceptance of the sanitary sewer improvements. Provide a copy of the said maintenance guarantee to the Sewer Utility.
36.                    Once the County has accepted the itemized cost breakdown, submit to this department a Maintenance Bond (or an Assignment of Funds in lieu of a Maintenance Bond) in the amount of ten (10) percent of the value of the improvements to be dedicated to the County or \$5,000, whichever is greater.