



Section 1 – General



Introduction

This manual is established to provide specific guidance to individuals, developers, design professionals and contractors designing infrastructure that will be incorporated or in some manner affect the public works of the City of Poulsbo. It provides standards and specifications that are in addition to, supersede, or are not specifically addressed in the national, state, or regional professional standards and specifications that the City has adopted.

A. Organization of this Manual

1. This section (Section 1) provides general requirements that apply to more than one category of construction, such as easements, drafting requirements, and erosion control. Additional sections include design requirements specific to: City Streets and Rights of Way (Section 2), Sanitary Sewer (Section 3), Water Systems (Section 4), Storm Sewer Systems (Section 5), Underground, Solid Waste and Miscellaneous Details (Section 6) and Trenching, Backfill and Pavement Restoration for Utility Installations in Public Rights-of-Way (Section 7).
2. Figures are included at the end of each section. These figures are available digitally in Adobe Acrobat format (pdf) and CAD at the City of Poulsbo website, www.cityofpoulsbo.com on the Public Works Department page.
3. **Appendix A** contains standard drawing notes. The standard drawing notes incorporate many of the requirements of this manual and other standards incorporated by reference (see Section 1, paragraph F). The City requires that these notes be reproduced and included in the construction plans for work which is subject to this manual.
4. **Appendix B** includes terms and conditions that are generally applicable to all developer projects.
5. Facilities that are not addressed in this manual will require engineered plans and specifications that are specific to the project being designed. These plans are also subject to review and approval by the City.

B. General Considerations

Well-designed projects that result in maintainable and economical public works are a goal of the City of Poulsbo Public Works Department. Although these standards are intended to apply to any physical development within the City, they may not apply for all situations. Compliance with these standards does not relieve the designer, owner or engineer of any project of the responsibility to apply sound professional judgment and acceptable engineering standards. These are minimum standards and are intended to assist, but not substitute for competent work by design professionals. The City may, at its sole discretion due to special conditions and/or environmental constraints, require more stringent requirements than would normally be required under these standards.

C. Deviations from the Manual

1. Requests for changes to, or deviations from, these standards may be considered by the City. Generally the decision to grant, deny or modify the standards will be based upon evidence that the request can meet the following criteria:
 - a. The change will achieve the intended result in a comparable or even superior design and a better quality of improvement; and,
 - b. The change will not adversely affect safety and/or operation; and,
 - c. The change will not adversely affect maintainability or economical considerations; and,
 - d. The change is permitted under City Ordinance and applicable state and federal laws.
2. A request for approval of a deviation to City standards shall be submitted in writing to the City Engineer. The request shall include a description of the proposed deviation, the rationale for it, and any supporting documentation that would justify approval of the request in terms of the criteria listed above. When applicable, a drawing or other graphical material shall be included. The City Engineer will review the proposal, determine his recommendation for approval or denial, and prepare a presentation for City Council consideration. The City Council shall make their decision based upon the fulfillment of the criteria.
3. The request may be submitted prior to, with, or after, making an application; however, if submitted with or after making an application, the project timeline may be affected and an extension for additional processing time will be requested from the applicant.
4. In the Old Poulsbo district, the City Engineer shall have the authority to allow a deviation from these standards in order to allow new streets to be consistent with existing street conditions if, in the discretion of the City Engineer, the adjacent existing conditions are unlikely to be replaced in the foreseeable future, and if the deviation satisfies criteria (b) and (c) above.

D. Specification Acronyms

Whenever in these standards references are made to the standards, specifications, or other published data of the various national, regional, or local organizations, such organizations may be referred to by their acronym or abbreviation only. As a guide to the user, the following acronyms or abbreviations which may appear shall have the meanings indicated herein:

AASHTO	American Association of State Highway and Transportation Officials
ANSI	American National Standards Institute, Inc.
APWA	American Public Works Association
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association
DOE	Washington State Department of Ecology
DOH	Washington State Department of Health
RCW	Revised Code of Washington
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

E. Reference Standard Specifications

The City of Poulsbo generally adheres to regionally and nationally recognized standards. In addition to this manual, the City of Poulsbo has adopted the following standards. In the event that there is a conflict between construction standards, the more restrictive standard shall apply as determined by the City Engineer.

- a. The latest edition of “Standard Specifications for Road, Bridge, and Municipal Construction” and “Standard Plans For Road, Bridge and Municipal Construction” prepared by APWA / WSDOT and subsequent revisions.
- b. The DOE Stormwater Management Manual for the Puget Sound Basin (1992).
- c. The latest edition of the Kitsap County Stormwater Management Design Manual and subsequent revisions.
- d. The DOE Criteria for Sewage Works Design.
- e. The Manual on Uniform Traffic Control Devices, US Department of Transportation, Federal Highway Administration.

F. Professional Qualifications and Authorities

- 1. All plans and specifications and engineering reports, except for minor projects not requiring engineering expertise as determined by the City Engineer, shall be prepared by a professional engineer licensed in the State of Washington in

accordance with RCW Chapter 18 and shall bear his or her seal and signature.

2. All proposed field changes must be brought to the attention of the City inspector. He will determine if further approval is required by the City Engineer. It is not acceptable to "notify" the city via "as-built" drawings. The applicant's engineer shall not have the authority to direct the contractor to make design changes without City approval.

G. Drafting Requirements and Construction Drawing Contents

1. Construction drawings will be rejected, without review, if the following drafting requirements are not met:
 - a. Construction plan size shall not exceed 24"x36". The minimum drawing scale shall be 1:40 horizontal and 1:5 vertical. A larger scale may be required for legibility.
 - b. Utilities shall be shown on plan/profile sheets. Each sheet shall have the corresponding plan/profiles on the same sheet with aligned stationing.
 - c. A comprehensive utility plan sheet shall be provided.
 - d. Labels from the various overlapping AutoCAD layer shall be legible.
 - e. All elements on the drawings shall be legible as determined by the City Engineer. Specific attention shall be paid to font sizes. Line weights and line types shall be easily distinguishable when the drawing is reproduced in black and white.
2. Show the vertical datum on the plans and benchmark and reference datum to be used for vertical control during construction.
3. The civil construction drawings shall include plans, as applicable, for: interim and permanent erosion control, grading, water, sewer, storm, streets, street lighting, signage/stripping/parking plan, and composite wet utilities. Other plans may be required depending on site-specific conditions. The plans shall also include detail drawings, profiles for streets and wet utilities, and the standard drawings notes as provided in Appendix A.
4. "As-built" information shall be drafted electronically into the "as-built" or "record" drawings. A "revision triangle" shall be placed at each modified element to denote changes from the original construction drawing which were approved by the City. Record drawings shall be provided to the City on mylar, paper, and digital media. The digital format shall be IBM-PC compatible AutoCAD TM in the version required at the time of submittal.

H. Easements

1. Easement boundaries and widths shall be shown on the construction drawings.
2. All utilities shall be placed in public roadways whenever possible; otherwise, the utility shall be placed in an easement meeting the following requirements:
 - a. If one utility is within the easement, the easement shall be 15 feet wide.
 - b. If two utilities are within the easement, the easement shall be 20 feet wide.
 - c. If three utilities are within the easement, the easement shall be 30 feet wide.
 - d. If the sewer depth is greater than ten (10) feet, the easement shall be 30 feet wide.
 - e. No utility shall be within five (5) feet of the boundary/easement edge.
 - f. Additional easement width may be required when easement is adjacent to buildings or other structures.
3. Sewer mains shall be placed as close to the middle of the easement as possible.
4. Sanitary sewer and storm structures (e.g. manholes and catch basins) within easements shall be accessible via an all-weather access road. The road shall be a minimum of fifteen (15) feet wide. Access roads with a slope greater than 10% must be paved. Paved access roads may be twelve (12) feet wide with one and one-half (1-1/2) foot wide gravel shoulders on each side, graded level with the paved road. No access road may have a slope greater than 15%. The road shall be centered about the sanitary sewer unless approved otherwise by the Public Works Director.
5. The Public Works Director will determine if the City will assume ownership and maintenance responsibilities for utilities within easements. For utilities that are determined to be publicly owned, easements shall be granted to the City of Poulsbo and ownership of any pipe and appurtenances shall be conveyed to the City.
6. It shall be the applicant's responsibility to obtain any necessary off-site utility easements. For plats, prior to preliminary plat approval, the easement shall be recorded or the applicant shall provide the City Engineer with sufficient evidence that the easement will be granted prior to Final Plat approval. Prior to Final Plat approval the easement shall be granted to the City of Poulsbo and ownership of any pipe and appurtenances shall be conveyed to the City. For site plans, easement and ownership requirements will be addressed on a case-by-case basis with the site plan conditions of approval.

7. No structure, planting, or other material that may damage or interfere with any easement or the installation, operation, or maintenance of utilities shall be placed or permitted to remain on any portion of an easement.
8. No rockeries/retaining walls may be constructed within the ten-foot (10') wide utility easement fronting all lots or within any other utility easement.
9. No permanent structures of any kind are allowed within any utility easement except as follows:
Due to the high potential for fences to be placed on side and rear yard property lines, when private storm or sewer pipe is located in an easement that is adjacent to, and parallel with, the property line between two lots/parcels:
 - a. The easement shall be located entirely on one property and not split between the adjacent properties; OR
 - b. The utilities shall be off-set from the property line a minimum of 2 feet, OR:
 - c. If the utility is placed on the property line, the utility shall have a minimum of 4 feet of cover, as measured from the top of the pipe.
10. Consideration should also be given to the building setbacks from property lines *and* easements as required by the Planning Department.
11. Dedication of easements and conveyance of ownership shall be subject to the City's administrative policies and procedures. Easements and conveyances shall be on the City's forms. The applicant's engineer shall provide a legal description and exhibit drawing, in electronic form, to the City Engineer for incorporation into the City's easement document.

I. Construction Permits

1. Public Property Construction. The Poulsbo Municipal Code requires a permit to be obtained for all construction on City right-of-way or other public property. This permit is in addition to any land use approval or other permits obtained for associated work on private property. All construction on City right-of-way or other public property shall be done in accordance with this manual. Where conflict exists between these standards and permit requirements, the permit shall take precedence.
2. Grading. Permits for grading are required in accordance with the Poulsbo Municipal Code.
3. Site-work. Approved plans are released for construction upon payment of any required fees and deposits and the issuance of any other required permits. The released approved plans constitute a "site-work construction permit."

4. Other Agencies. The applicant is responsible for obtaining all applicable permits required by other agencies, including, but not limited to, the Department of Fish and Wildlife, the Department of Natural Resources, and the Department of Ecology.

J. Construction Fees and Deposits

Fees and deposits are required in conformance with the Poulsbo Municipal Code. Payment of fees and deposits is required for permits and City engineering services for plan review, project administration, inspection, consultant services, and erosion control.

K. Bonds

Bonds for the performance and maintenance of permitted work shall be allowed or required in conformance with the Poulsbo Municipal Code. All bonds shall be on the City's forms. A bond may be in the form of a surety bond, frozen funds, or cash deposit.

L. General Construction Requirements

1. The improvements shall be constructed as shown on the approved plans and in accordance with these standards, standard details, and specifications. Manufacturer's equipment shall be installed in compliance with specifications of the manufacturer, except where a higher quality of workmanship is required by the plans and specifications. All materials and work shall be in strict accordance with any applicable regulations of the State of Washington and the City of Poulsbo. .
2. Preconstruction Conference. Prior to the start of construction, the City Engineer may require a preconstruction conference to review construction plans and schedules. The City Engineer may require any or all of the following to attend: the developer or his representative, the developer's engineer, the general contractor, the City Engineer, the Public Works Director or representative, the engineering inspector, and representatives of other utilities or agencies that may be affected by the construction.
3. Inspections & Tests.
 - a. The Public Works Director and his authorized representatives shall, at all times, have access to the work for the purpose of inspecting and testing, and the contractor shall provide proper facilities for such access and such inspection and testing.

- b. If any work is covered up without approval, inspection or consent of the Public Works Director or his representative, it must, if required by the Public Works Director, be uncovered for inspection.
 - c. Before a performance test is to be observed by the City inspector, the owner, permit holder, or contractor shall make whatever preliminary tests are necessary to assure that the material and/or equipment are in accordance with the plans and specifications.
 - d. When special inspections by a qualified professional are required in addition to, or instead of, inspection by the City inspector, the contractor, owner, or permit holder shall arrange for such inspection and shall submit evidence of their approval to the City Engineer.
 - e. Compaction tests will be required to ensure adequate compaction on all lifts for trench backfill and roadway/parking lot construction. All compaction tests shall be conducted by a licensed testing laboratory at the expense of the developer/contractor. Compliance with compaction and moisture specifications shall be monitored throughout the project. Copies of all test reports shall be provided to the City Engineer within 24 hours. The contractor/developer is responsible for scheduling compaction testing with the laboratory.
 - f. For work inspected by the City, the City will provide written notice of deficiencies, adequately describing the same, to the owner, permit holder, or contractor prior to final approval of the construction. The deficiencies shall be corrected to the satisfaction of the City inspector before final inspection or acceptance will be made by City.
4. Utility Locates. It shall be the responsibility of the developer to verify the exact locations of all existing underground utilities before any work commences. The developer or his designee shall contact the underground utilities location center, 1-800-424-5555, a minimum of two (2) days before commencing work.
5. The Contractor shall replace all removed or disturbed monuments, right-of-way markers, property stakes, etc., in a manner satisfactory to the City Engineer.

M. Materials and Methods

All materials and methods not specifically referenced in this manual shall comply with the applicable sections of the most currently adopted editions of the ASTM, AWWA, APWA, and APWA/WSDOT Standard Specifications. When there are differences between the specifications, the Public Works Director/designee shall determine which shall apply. Where reference is made to other specifications, it shall be the latest revision at the time of construction, except as noted on the plans or herein. When specific manufacturers or models of various materials are listed, no substitutions will be allowed without prior approval by the Public Works Director.