



## PUBLIC WORKS DEPARTMENT

### STANDARD PLAN NOTES

*The Standard Plan Notes must be included and labeled on all plans. Notes, which in no way apply to the project, shall be omitted. However, the remaining notes must not be re-numbered. For example, if General Note #3 were omitted, the remaining notes should be numbered 1, 2, 4, 5, 6, etc.*

**THESE NOTES ARE NOT A SUBSTITUTE FOR PROJECT SPECIFIC SPECIFICATIONS TO BE PROVIDED BY THE DESIGN ENGINEER AND INCLUDED WITH THE PLANS**

#### **STANDARD PLAN NOTES:**

##### **General Notes:**

1. All construction and materials shall be in accordance with the Sedro-Woolley Municipal Code (SWMC), applicable ordinances, the Sedro-Woolley Public Works Department Standards, and the City Council conditions of project approval. These documents are supplemented by the current version of the Standard Specifications for Road, Bridge, and Municipal Construction (WSDOT/APWA), and the 2012/2014 version of the DOE Stormwater Management Manual. It shall be the sole responsibility of the applicant and the professional engineer to correct any error, omission, or variation from the above requirements found in these plans. All corrections shall be at no additional cost or liability to the City of Sedro-Woolley.
2. The design elements within these plans have been reviewed according to the Sedro-Woolley Engineering Review Checklist. Some elements may have been overlooked or missed by the City Engineering Plan Reviewer. Any variance from adopted standards is not allowed unless specifically approved by the City of Sedro-Woolley, prior to construction.
3. Before any construction or development activity, a Pre-construction Meeting must be held between the City of Sedro-Woolley, Skagit PUD No. 1, (unless no water in project) the applicant, (owner/developer) the applicant's agent, (if different) and applicant's construction representative.
4. The contractor must have a full set of construction plans, approved by the City, on site at all times during project construction.
5. Approval of this road, grading, and drainage plan does not constitute an approval of any other construction (i.e. domestic water conveyance, sewer conveyance, gas, electricity, etc.)

6. Construction noise shall be limited to 7 a.m. to 8 p.m., Monday through Saturday, 10 a.m. to 6 p.m. Sunday.
7. It shall be the applicant's/contractor's responsibility to obtain all construction easements necessary before initiating off-site work within the road rights of way.
8. The contractor shall notify "Call Before You Dig" at 811 a minimum of two business days prior to commencing digging or grading operations.
9. Franchised utilities of other installations that are not shown on these approved plans shall not be constructed unless an approved set of plans that meet all City requirements and the requirements of the Sedro-Woolley Roadway Standards are submitted to the City of Sedro-Woolley at least three days prior to construction.
10. Vertical datum shall be City of Sedro-Woolley. (NAVD88)
11. Horizontal datum shall be City of Sedro-Woolley. (Washington State Plane Coordinate System North Zone)
12. Infiltration system construction may be within a right of way (with approval of the Public Works Department) or appropriate drainage easements, but not underneath the roadway section.
13. All roadway subgrade shall be backfilled and compacted to 95% density in accordance with WSDOT 2-06.3.
14. Open cutting of existing roadways is not allowed unless specifically approved by the Public Works Department and noted on these approved plans. Any open cut shall be restored in accordance with the Sedro-Woolley Standard Trench Detail(s) and the SWPWDS. All utility trenches underneath an existing roadway shall be backfilled and compacted in accordance with applicable City Details.
15. The Contractor shall be responsible for providing adequate safeguards, safety devices, protective equipment, flaggers, and any other needed actions to protect life, health, and safety of the public, and to protect property in connection with the performance of work covered by the contractor. Any work within the traveled right of way that may interrupt normal traffic flow shall require at least one flagger for each lane of traffic affected. All sections of the WSDOT Standard Specifications 1-10-Traffic Control, shall apply.
16. Contractor shall provide and install all regulatory and warning signs per the latest edition of Manual On Uniform Traffic Control Devices (MUTCD) and in accordance with approved Traffic Control Plans.
17. All utilities shall be adjusted to final grade after final paving of the asphalt wearing course.

18. Rockeries are considered to be a method of bank stabilization and erosion control only. Rockeries shall not be constructed to serve as retaining walls. All rockeries shall be constructed in accordance with standard accepted methods, including toe drains. Toe drain outlets shall be properly armored and located where the water will not cause problems, or tightlined into the stormwater collection/conveyance system. Rockeries may not exceed four feet (4') in height for cut sections or four feet (4') in height for fill sections unless designed by a geotechnical or structural engineer licensed in the state of Washington.
19. All damages to public and/or private property by the contractor during construction shall be promptly repaired to the satisfaction of the owner and/or City inspector before project approval and/or release of the project's performance bond.
20. Test observations and inspections (except for PUD water lines) shall be by the City inspector.
21. All test results shall meet or exceed the specifications. All items and materials which do not meet or exceed the specifications shall be replaced and retested at no additional cost to the City or to the owner.
22. Issuance of the building or construction permit by the City does not relieve the owner of the continuing legal obligation and/or liability connected with construction of facilities within these plans. Furthermore, the City does not accept any obligation for the proper functioning and maintenance of said facilities during or following construction.
23. Discrepancies and/or errors in these Standard Notes or between the Standard Notes and the Plans and Specifications shall be reported to the as soon as possible.

## Roadway Notes:

1. All portions of the site to be filled within the limits of the roadway shall be filled with gravel base or better material placed in loose lifts not to exceed 8 inches and compacted according to Standard Specifications Section 2-03(14)C "Method C" to a minimum of 95% maximum density. All soft areas in the excavated subgrade shall be excavated to expose a firm, non-yielding condition and backfilled with compacted gravel base material. Prior to backfilling, all subgrade shall be inspected by the engineer or City inspector.
2. The owner or contractor shall provide materials testing on all materials placed within Right-of-Way or areas subject to regular vehicular traffic in accordance with the most recent releases of the WSDOT Standard Specifications and Materials Manuals. The owner or contractor shall provide the City with compaction test results performed by an approved testing lab. Lab testing of materials shall be performed on every 100 C.Y. of material. Field testing shall be performed every 18 inches of compacted embankment depth, and on the surface of each material layer: subgrade, subbase, base, crushed surfacing, asphalt surfacing. In trench lines, compaction testing shall take place every 500 lineal feet and every 24 inches of compacted depth unless 1-1/4" minus (CSBC) 3/4" minus or 5/8" minus (CSTC) crushed gravel is used with vibratory compaction, or CDF is used. The contractor shall retain licensed personnel to perform compaction tests at the specified frequency.
3. If adequate inspection is not performed before completion of the roadway construction, it may be necessary for core drilling and testing to be performed to assure an acceptable quality of roadway. When core drilling is found to be necessary, the contractor will be held responsible for all costs incurred.
4. Crushed surfacing top course (CSTC) shall conform to section 9-03.9(3) of the Standard Specifications. CSTC shall be compacted to a minimum of 95% maximum density as determined by Standard Specification Section 2-03.3(14)D. Graded and compacted surface of CSTC shall be within 1/2 inch of desired depth below finish grade. Prior to importing CSTC the contractor shall provide satisfactory passing gradation and degradation test results to the Engineer.
5. Immediately prior to placing geotextile fabric over subgrade, if required, all saturated and disturbed soils and protruding obstructions shall be scraped from the area where the geotextile is to be placed. No construction traffic shall be allowed on the prepared surface or over the geotextile fabric until properly 'bridged' with a minimum of 8" compacted depth gravel base.
6. Organic material including buried logs discovered during subgrade excavation and site preparation shall be entirely removed and disposed of by the contractor. Holes from log removal shall be backfilled with gravel base and compacted to 95% maximum density at the optimum moisture content as determined by Standard Specification Section 2-03.3(14)D.
7. During periods of rainfall, the contractor shall prevent water from ponding and/or standing on the subgrade or on the prepared gravel subsurface. Storm runoff

- may be discharged into the existing or proposed stormwater system (***after proper treatment to remove sediments***) or another on-site location that will not impact the neighboring properties or this project. Suspension of work shall conform to 1-08.6 of the Standard Specifications.
8. Ditch slopes shall be stabilized to prevent erosion. If ditch erosion is evident, ditch lining shall be provided to the satisfaction of the City.
  9. Roadways to be overlaid shall first be cleaned.
  10. Geotextile fabric shall be placed under overlays where reflective cracking is likely to occur. A thin tack coat shall be placed under and over the geotextile fabric prior to placing asphalt.
  11. Minimum depth of asphalt shall conform to the Sedro-Woolley Public Works Department Standards. Maximum compacted asphalt lift depth is 3 inches. Minimum compacted asphalt lift depth is 1.5 inches.
  12. Street signage and striping: Street signage and striping shall conform to the SWMC, the Sedro-Woolley Public Works Department Standards and the MUTCD, current edition. All signage and striping shall be supplied by the contractor.

## Drainage Notes:

1. All pipe and appurtenances shall be laid on a properly prepared foundation in accordance with WSDOT 7-08.3. This shall include leveling and compacting the trench bottom, the top of foundation material, and required pipe bedding, to a uniform grade so that the entire pipe is supported by a uniformly dense unyielding base.
2. PVC storm pipe larger than 8-inch inner diameter (I.D.) shall conform to section 9-05.12 of the Standard Specifications meeting the requirement of ASTM D-3034 SDR-35 or ASTM F 679. Joints shall be bell and spigot with a gasketed joint.
3. Corrugated Polyethylene storm pipe shall conform to section 9-05.19 and 9-05.20 of the Standard Specifications.
4. Ductile Iron (D.I.) pipe shall conform to section 9-05.13 of the Standard Specifications and ANSI A 21.51 or AWWA C151.
5. Corrugated Metal Pipe (CMP) shall be either aluminum or galvanized steel pipe. Aluminum pipe shall be helical lock seam pipe conforming to section 9-05.11 of the Standard Specifications. Galvanized pipe shall meet the specifications of AASHTO M 36 Type 1 and section 9-05.4 of the Standard Specifications. All pipe shall be gasketed with manufacturer provided products.
6. Steel pipe shall be galvanized and have Asphalt Treatment #1 or better inside and outside, and shall not be used without the explicit authorization of the Director .
7. All drainage structures, such as catch basins and manholes, not located within a traveled roadway or sidewalk, shall have solid locking lids. All drainage structures associated with a permanent stormwater facilities shall have solid locking lids.
8. All catch basin or storm manhole pipe penetrations, pick holes, riser sections and frames shall be grouted inside and outside with non-shrink grout.
9. All catch basin grates shall conform to WSDOT Standard Plans. Combination inlets shall be used on catch basins located in sag curve sections.
10. All driveway culverts located within the right of way shall be of sufficient length to provide a minimum 3:1 slope from the edge of the driveway to the bottom of the ditch. Culverts shall have beveled end sections to match the side slopes. Minimum culvert diameter shall be 12-inches.
11. Lots not approved for infiltration shall be provided with drainage outlets (stub-outs). Stub-outs shall conform to the following:
  - A. Each outlet shall be suitably located at the lowest elevation on the lot, so as to service all future roof downspouts and footing drains, driveways, yard

drains, and any other surface or sub-surface drains necessary to render the lots suitable for their intended use. Each outlet shall have free-flowing, positive drainage to an approved stormwater conveyance system or to an approved outfall location.

- B. Outlets on each lot shall be located with a five-foot (5') high, 2 x 4 stake marked "Storm." The stub-out shall extend above surface level, be visible and be secured to the stake.
  - C. Pipe material shall conform to WSDOT or APWA specifications and if non-metallic the pipe shall contain acceptable detection or be laid with a stranded tracer wire of sufficient gage.
  - D. Drainage easements are required for drainage systems designed to convey flows through individual lots.
  - E. The applicant/contractor is responsible for coordinating the locations of all stub-out conveyance lines with respect to the utilities (i.e. power, gas, telephone, television).
  - F. All individual stub-outs shall be privately owned and maintained by the lot homeowner.
- 12. Trenching, bedding, and backfill materials shall conform to the Standard Specifications Divisions 7 and 9 and applicable Plan Details.
  - 13. No part of the drainage system may be covered, concealed, or put into use until it has been inspected, tested (if required), and accepted by the City inspector.
  - 14. All permanent stormwater facilities must be installed, stabilized, and in operation prior to or in conjunction with removal of TESC measures.
  - 15. At the end of all site construction, the contractor shall clean all debris from catch basins and stormwater conveyances. Debris shall not be allowed to enter streams or off-site stormwater systems.

## **Sanitary Sewer Notes:**

1. A licensed bonded contractor must be employed for work in the public right-of-way
2. All side sewers (residential and commercial) shall be a minimum of 6-inch diameter from the main to the property line.
3. Slope on side sewers shall be 2% (1/4-inch per foot) or greater.
4. Gravity sewer pipe material shall meet ASTM3034 and be SDR-35, or better and be "green" color. White PVC pipe shall not be used..
5. Glued joints are not acceptable. Joints shall be rubber gasketed.
6. Cleanouts shall be placed at edge of Right-of-Way, at the foundation, and every 100 feet.
7. No bend sharper than 1/8 (45°) will be permitted without a cleanout.
8. Cleanouts shall be brought to finish grade surface and capped per City Details.
9. Sewer pipe must have at least 30 inches cover at the property line and 18 inches on private property.
10. Pipe will be bedded 6 inches under and 6 inches over with pea gravel or buckshot only.
11. Sewer Manholes shall have the words "Sewer" cast into the lid. All lids shall be bolt down type.
12. All sewer piping shall be placed with increasing diameter downstream. No exceptions without written modification confirmation from the City Engineer.
13. All sewer trenches shall be installed with detectable marking tape conforming to WSDOT 9-15.18. The tape shall be 4 inches wide and color coded green. The tape shall be installed at 12 to 18 inches below finish grade and a minimum of 12 inches above the pipe.
14. All manholes shall have a 0.1-foot drop through the manhole unless azimuth angle 75-degrees or greater, which shall have a 0.2-foot drop through the manhole
15. Stamped and signed certified "As-built" plans shall be submitted and approved prior to final acceptance, TV-logging, and /or building permit approval, and include Northing and Easting data (City Horizontal Datum) for structures and cleanouts.
16. All trenches or excavations within the public right-of-way will be safe guarded with barricades and must not be left open overnight.



17. Backfill all trenches after inspection and clean up street, including pavement restoration.
18. Any portion of the installation covered or backfilled without approval by the inspector will be uncovered. NO EXCEPTIONS.
19. Requests for inspection will be made at least 24 hours in advance by call to the Inspection line (360) 855-0139.
20. City will perform video inspection of sewer lines 6-inches in diameter and greater prior to final acceptance. Structures and pipes shall be cleaned prior to video inspection. Coordinate with the City for video inspection scheduling.

## **Erosion/Sedimentation Control Notes:**

1. Erosion and sediment control BMP's shall conform to the 2012/2014 Department of Ecology Stormwater Management Manual (Volume II-Construction Stormwater Pollution Prevention), the project TESC Plans and Details, the project SWPPP, DOE permit requirements and conditions, and any other agency permit requirements and conditions.
2. The ESC plan(s) shall be developed in accordance with the 201/2014 version of the Department of Ecology Stormwater Management Manual, Volume II, Construction Stormwater Pollution Prevention Plan Checklist, Section II.
3. Approval of this Erosion/Sedimentation Control (ESC) plan does not constitute an approval of permanent road or drainage design (i.e. size and location of roads, pipes, restrictors, channels, retention facilities, utilities, etc.).
4. The implementation of these ESC plans and the construction, maintenance, replacement, and upgrading of these ESC facilities is the responsibility of the applicant/contractor until all construction is approved.
5. The boundaries of the clearing limits shown on this plan shall be clearly staked and delineated in the field prior to any construction activities. During the construction period, no disturbance beyond the clearing limits shall be permitted. The clearing limits shall be maintained by the applicant/contractor for the duration of construction. Clearing limits surrounding protected critical areas (PCA's) or significant trees must be marked with orange construction fencing.
6. The ESC facilities shown on this plan must be constructed in conjunction with all clearing and grading activities, and in such a manner as to insure that sediment laden water does not enter the drainage system or violate applicable water standards.
7. The ESC facilities shown on this plan are the minimum requirements for anticipated site conditions. During the construction period, these ESC facilities shall be upgraded (i.e. additional sumps, relocation of ditches and silt fences, etc.) as needed for unexpected storm events.
8. The ESC facilities shall be inspected daily by the applicant/contractor and maintained as necessary to ensure their continued functioning.
9. Any area needing ESC measures, not requiring immediate attention, shall be addressed within seven (7) days (May 1 – September 30) or within 48 hours (October 1 – April 30).
10. The ESC facilities on inactive sites shall be inspected and maintained a minimum of once a month or within the 24 hours following a storm event.
11. At no time shall sediment be allowed to accumulate within a catch basin. All catch basins within the project area and downstream of sediment-producing activities shall be fitted with an approved catch basin insert. Filter fabric wrapped

over or under a catch basin grate inlet is not a suitable alternative. All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not flush sediment-laden water into the downstream system.

12. Stabilized construction entrance(s) shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures may be required to insure that all paved areas are kept clean for the duration of the project.
14. Management practices providing significant tree protection shall be provided. Such protection may include but is not limited to chain link fence and/or orange construction fencing placed outside of the drip lines of significant trees to be protected. Significant trees are defined as deciduous trees with 8-inch or greater DBH (4-1/2 feet from ground) or evergreens with 6-inch or greater DBH. The drip line of a tree is defined as the perimeter of the canopy.
15. The owner/developer is responsible for the site at all times, and shall appoint a certified ESC lead person. THE ESC plan will show the name of this responsible party. Failure to adequately control erosion on site to the satisfaction of the City of Sedro-Woolley will result in a "STOP WORK" order and possibly fines. Failure by the City to be able to reach the ESC lead will result in a "STOP WORK" order and possibly fines.
16. The names and phone numbers of the following responsible parties shall be provided to the City at the project preconstruction conference:
  - ESC Lead Person
  - Contractor
  - Owner
  - Developer
  - ESC Design Engineer
17. ESC measures shall be maintained and functional until the site has completely stabilized to the satisfaction of the City of Sedro-Woolley and until other permit requirements and conditions are met.
18. Any permanent stormwater facility used as a temporary settling basin shall be modified with the necessary erosion control measures and shall provide adequate storage capacity. If the permanent facility is to function ultimately as an infiltration or dispersion system, the facility shall not be used as a temporary settling basin. No underground detention tanks or vaults shall be used as a temporary settling basin.
19. Where seeding for temporary erosion control is required, fast germinating grasses shall be applied at an appropriate rate (i.e., annual or perennial rye applied at approximately eighty (80) pounds per acre). Mulch, tackifier, and watering agents shall be utilized in the mix when appropriate.

**Water Notes:**

1. Fire Hydrant Requirements:

- A. Fire hydrants are owned and operated by the Sedro-Woolley Fire Department (SWFD).
- B. All new fire hydrant installations or relocations shall be Clow 'Medallion', or equal as approved by the SWFD Fire Chief. Repositioned fire hydrants shall be examined and certified acceptable prior to re-installation.
- C. Fire hydrants shall be painted Safety Red with White top and caps and equipped with a "Storz" fitting on the large port.
- D. A blue double-sided (Type-2BB) reflector RPM (raised pavement marker) shall be placed in the center of the adjacent fire access route pavement immediately perpendicular to the fire hydrant to indicate its location.

All other Water notes to be per PUD No. 1 requirements.