



Construction / Full Drainage Plan Submittal Checklist For Projects Vested Prior to September 30, 2010

Project Name: _____

Project File Number (PFN): _____

Number of Lots: _____ Tracts: _____

Impervious Surface in Square feet: _____

GENERAL SUBMITTAL REQUIREMENTS

Plan copies shall comply with the Engineering Design and Development Standards Chapter 10. EDDS deviations require EDDS Deviation Request form. Is a deviation request submitted?
YES NO

- _____ 1. **2 sets** of plans (drawings) and **2 copies** of reports
- _____ 2. Plan sheet size of 24"x36" or 22"x 34" per EDDS 10-02(A)(1)
 - _____ a. Construction Plan View: Plans shall be drawn to scale (1"=50' preferred scale)
 - _____ b. Details: 1"=10' or 1"=20'. Please choose the scale that will give the most information on the sheet selected. Individual details may require larger scales.
 - _____ c. Cross sections and profiles: Minimum 1"=50' horizontal and 1"= 5' vertical. The ratio of the vertical to the horizontal scale shall be 1V:10H, except bridge plans shall have horizontal and vertical scales of 1" =20'

Items Required on All Sheets

- _____ 3. Project file number. The project file number should be in bold larger type located at the lower right corner.
- _____ 4. Project title
- _____ 5. Sheet titles (Examples: "Site Plan," "Drainage Plan," "Erosion Control")
- _____ 6. Section, Township, and Range at the top of each sheet
- _____ 7. Graphic scale clearly indicated on plan view
- _____ 8. North arrow clearly indicated on plan view

- _____ 9. Current Professional Engineer's stamp, signature and date signed; Snohomish County approval block

Snohomish County Planning & Development Services

APPROVED FOR CONSTRUCTION

By: _____
Randolph R. Sleight, P.E., P.L.S.
R/W Permit No. _____

Plan Information Required on the Cover Sheet or on Sheet One

- _____ 10. Owner/Applicant's and Engineer Contact/Agent's name, address, phone and fax number(s) and e-mail address
- _____ 11. Engineer's name, address, phone number, fax number and e-mail address
- _____ 12. Vicinity map with north arrow and scale
- _____ 13. Legal description of project site
- _____ 14. Property tax account number(s) of subject property and adjacent properties
- _____ 15. For large sites, show at least one sheet with full development
- _____ 16. Sheet index, if plan set contains more than 5 sheets

Required Site and Topographic Information:

- _____ 17. Existing contours shown as dashed lines at a minimum of 5-foot intervals. Also show enough topographic details offsite to resolve questions of slope, setbacks, drainage, etc.
- _____ 18. Proposed contours, shown as solid lines, at the same interval as existing contours
- _____ 19a. Show onsite benchmark location and provide description (example: concrete monument, railroad spike in power pole, top of fire hydrant, etc.)
- _____ 19b. Vertical Datum tied to MSL (NGVD 29) or NAVD 88 with equation for MSL; Horizontal Datum (NAD 83).
- _____ 20. Property lines shown with bearings and distances and ties to controlling corners or subdivision corners
- _____ 21. Location, size and type of any **existing** or **proposed** structures, impervious areas, drainage facilities, wells, drain fields, drain field reserve areas, roads, pavement striping, signs, easements, and utilities on the site. **Clearly differentiate between proposed and existing.**

- _____ 22. Building setback lines for the vault and/or detention facility, if previously established or required
- _____ 23. Existing and proposed drainage pattern(s), storm drainage and LID facilities, (e.g. ditch lines, culverts, catch basins, French drains, surface drainage or sheet flow arrows). Clearly differentiate between proposed and existing.
- _____ 24. Location of all property boundaries, easements, and structures on site and within 15 feet of site boundaries.
- _____ 25. Location of all wetlands, streams, lakes, marine shorelines, primary association areas for threatened endangered and sensitive species, and species of local importance on or within 300 of the site, including their required buffers in accordance with SCC 30.62A.130
- _____ 26. Calculate and depict effective impervious surfaces within the buffers of all wetlands, streams, lakes and marine shorelines; and within 300 feet of all wetland, streams, lakes and marine shorelines containing salmonids.
- _____ 27. Location of all geologically hazard areas on or within 200 feet of the site.
- _____ 28. Location, size and type of all aquifer recharge areas on the subject property (SCC 30.62C.130)
- _____ 29. Depict critical aquifer recharge areas (CARAs) when present on the site and if evaluation under Chapter 30.62C SCC requires additional information, please submit that documentation.
- _____ 30. Location of all existing NGPA, NGPA/E, and proposed critical area protection areas (CAPAs) on the site (see Chapter 30.62A SCC)
- _____ 31. Flood hazard areas and identify the Community Panel number of the Flood Insurance Rate Map.
- _____ 32. Boundaries or limits of site disturbance, clearing, and grading
- _____ 33. Location of any off-site critical area within 300 feet of the project, and boundaries of areas which are farther when affected by the construction.
- _____ 34. Map existing wells, drainfields, infiltration systems, rain gardens and drainfield reserve areas located within the distances of concern established by Health District regulations
- _____ 35. Location and type of soils and vegetative cover, before and after development.
- _____ 36. Identify existing and proposed stormwater pollution control, detention, stormwater drainage facilities on-site and within 15' of the site, or farther than 15' when they may be affected by the activities on site.

- _____ 37. Location and type of existing and proposed water quantity control facilities or measures such as detention ponds, rain gardens, roof gardens or other BMP devices. Provide high water elevations for design of infiltration systems, if any.
- _____ 38. Grading setback detail to include ½ height of fill, 1/5 height of cut, 2' minimum.
- _____ 39. Detention performance chart to include amount of impervious surface and LID credits taken.

Detention Performance Chart (sample)

Storm	Volume Storage Requirements (Cu Ft)				Maximum Release Rates (CFS)		
	Dead	Live	Designed	As-Built	Rate	Designed	As-Built
2 yr							
10 yr							
100 yr							

Required Erosion Control Information and Plans

- _____ 40. Location and type of proposed measures (BMPs) for Temporary Erosion and Sedimentation Control (TESC) or Stormwater Pollution Prevention Plans (SWPPP) as contained in Vol. 2, 2005 DOE Stormwater Management Manual for Western Washington.
- _____ 41. Details and notes for erosion control. Comply with Rule 3044 Standards for Construction Stormwater Pollution Prevention Plans for the 12 Elements of the SWPPP.
- _____ 42. Identify the Certified Erosion Control Specialist who will be monitoring the site on a regular basis or who is on-call.

Notes and Specifications

- _____ 43. General notes and drainage notes and specifications or references to compliance with standards in EDDS (if not the current EDDS, please specify which edition) and the WSDOT/APWA Standard Specifications, materials specifications for the construction of the project
- _____ 44. Grading quantities shall be shown on the plan, showing both cut and fill quantities in cubic yards, minimize grading for LID projects
- _____ 45. Grading shall comply with the requirements of Chapter 18 of the International Building Code and Snohomish County Code Chapter 30.63B Grading.
- _____ 46. Hydraulic Project Approval (HPA) summary information or permit conditions shall be attached or affixed to the plans and specifications, if work is with OHWM of a stream
- _____ 47. All projects which impact WSDOT and City rights of way shall secure the

necessary permits from either the State or City

_____ 48. Prominent "Call 1-800-424-5555 Before You Dig" note

Road Information

_____ 49. Road names identified

_____ 50. Road alignment with 100 foot stationing and stationing at PTs and PCs with bearing and distances on centerlines

_____ 51. Right of way lines and widths for existing and proposed road and intersecting roads

_____ 52. Curve data, at least three elements (radius, delta, arc length or tangent distance) on all curves, these may be shown in a curve table

_____ 53. Show details of frontage improvements on separate plan sheet

_____ 54. Limits of existing and proposed paving

_____ 55. Typical roadway sections of **existing** or **proposed** roads to be improved plus their functional road classifications and posted/design speeds.

_____ 56. Existing and proposed monumentation per EDDS

_____ 57. Mailbox location and detail with Post Master approval

Profile

_____ 58. Original ground lines with elevations at 100-foot stations and at significant ground breaks extended 100' beyond property line

_____ 59. Final road and storm drain profile with stationing, same as horizontal plan extended 100' beyond property line

_____ 60. Vertical curve elevation and stations of vertical PI, PC, and PT(s), sag (low point) and crest (highpoint), clearances for overpasses or bridges and grade breaks shown

_____ 61. Design of roadway extended beyond project 100' (match existing driveway profiles at road connection, when drive exceeds 5%. Show compliance with EDDS 2-070).

Drainage Analysis and Reports

_____ 62. The Drainage Information Summary:

- Cover with project name, Project File Number, engineer's stamp and signature;
- Table of Contents;
- Drainage Information Summary Form (Form-3042);

- Description of existing site conditions, soils, and existing drainage system;
- Description of developed site conditions;
- Erosion control risk assessment;
- Description of proposed erosion control BMP's;
- Upstream analysis;
- Downstream analysis;
- Geotechnical reports and other analyses (if applicable); and
- Basin maps with sub-basins and upstream and downstream basins

- _____ 63. Engineer's stamp, signature and date on drainage report
- _____ 64. The **upstream analysis** with narrative, basin map and other supporting information
- _____ 65. The **downstream analysis** meeting SCC 30.63A.200(2)(b) with narrative, basin map and other supporting information extending for at least a quarter mile downstream of the subject property. The analysis shall include photographs of the downstream drainage system (when possible) and an engineering and computational assessment of the capacity based on the Drainage Needs Report (DNR) prepared for SWM/DPW
- _____ 66. Critical areas mitigation measures for drainage impacts per SCC 30.63A.200(2) If in the CAR or drainage report, state "See critical area/drainage report."
- _____ 67. A hydrogeologic report for any activity or use requiring a project permit regulated under chapter 30.62C SCC and proposed within a sole source aquifer, Group A wellhead protection area or critical aquifer recharge area with high or moderate sensitivity (SCC 30.62C.140).
- _____ 68. A critical area study for any development activity or action requiring a project permit occurring in wetlands, fish & wildlife habitat conservation areas or their buffers (SCC 30.62A.140).
- _____ 69. Design information and calculations for proposed quantity control measures (detention, retention or infiltration system), erosion control measures, water quality measures, and stormwater conveyance
- _____ 70. When early grading plans are submitted, the erosion control plan or SWPPP shall accompany the plan submittal with the risk completed assessment. (See Rule 3044 for additional information)
- _____ 71. Operations and Maintenance (O & M) Manual for the entire drainage system.
- _____ 72. A geotechnical report for any development activity or action requiring a project permit proposed within; an erosion hazard area, landslide hazard area or its setback, 200 feet of a mine hazard area or its setback, 200 feet of any faults (SCC 30.62B.140).
- _____ 73. Design information, soil logs, describe method used to test the soils, calculations and report on proposed infiltration system(s), if applicable. If this information is in the soils report, please state "See Soils Report."
- _____ 74. Geotechnical information and discussion, summary of the tests, requirements for grading work and the testing schedule, geotechnical engineering or geologic reports if

required, shall be stamped, signed and dated by licensed professional who is registered in the State of Washington. Do not duplicate if in the soils report.

- _____ 75. Basin maps or plans for the site and offsite areas which show the location of basins and sub-basins which correspond to the analysis for the site, as well as the upstream and downstream areas.
- _____ 76. Hearing Examiner Decision or Preliminary Approval (submit 1 copy with the plan sets)
- _____ 77. Water Plan showing existing and proposed fire hydrant locations
- _____ 78. Full Drainage Plan Fees per SCC 30.86.510 and 30.86.030

SPECIAL SUBMITTAL REQUIREMENTS

- _____ 79. Planting/Clearing/Landscape Buffer Plan, Chapters 30.41B and 30.41C (Rural Cluster Plat/Short Plat only)
- _____ 80. Recreation Plan and Specifications (PRD) SCC 30.42B (Planned Residential Development only)
- _____ 81. Landscape Plan (Planned Residential Development only)

DRAINAGE INFORMATION SUMMARY FORM

Project Total Area: _____

Project Development Area: _____

Number of Lots (if applies): _____

Summary Table

Drainage Basin Information	Individual Basin Information			
	A	B	C	D
On-Site Sub-basin Area (acres)				
Type of Storage Proposed				
Approx. Storage Volume (cu. ft.)				
Soil Type(s)				
Pre-developed Runoff Rates				
Q (cfs.)	2 yr.			
	10 yr.			
	100 yr.			
Redevelopment Area				
Post-development Runoff Rates				
Q (cfs.)	2 yr.			
	10 yr.			
	100 yr.			
Offsite Upstream Area				
Number of acres				
Offsite Downstream Flow				
Q (cfs)	100 yr			

Provide a written executive summary of the plan (2 pages maximum).

- Drainage plan description, outline the concept(s) to comply with the code.
- Water quality measures being proposed, identified in Storm Water Pollution Prevention Plan (SWPPP).
- Describe the drainage basins and sub-basins on-site and off-site, existing and proposed (refer to basin maps in the report).
- Describe or sketch of the drainage system proposed for the development.
- Downstream analysis, summary of key issues and limitations.
- Upstream analysis, summary of key issues to be addressed.
- List all proposed stormwater pollution source control BMP's.

AUTHORITY: Snohomish County Code 30.70.030 authorizes the Director of Planning and Development Services to establish and revise submittal requirements for all permit applications. These requirements are hereby established as shown above, and shall be on file with the department. Due to site-specific circumstances, the Director or his designee may waive individual requirements on a case-by-case basis.